

**Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (1/46)**

| Arroz Cáscara |               |                   |                    |                    |                                 |                                  |                 |                            |               |               |
|---------------|---------------|-------------------|--------------------|--------------------|---------------------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años          | Años en Orden | Oferta interna    |                    |                    |                                 |                                  | Demanda interna |                            |               | *7<br>Balance |
|               |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla<br>y Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|               |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                        | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
|               |               |                   |                    |                    |                                 |                                  |                 |                            |               |               |
| Actual        |               | (1)               | (2)                | (3)                | (4)                             | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962          |               | 157.91            | *                  | *                  | *                               | *                                | 4,696           | *                          | *             | *             |
| 1963          |               | 161.33            | *                  | *                  | *                               | *                                | 4,846           | *                          | *             | *             |
| 1964          |               | 139.99            | *                  | *                  | *                               | *                                | 5,001           | *                          | *             | *             |
| 1965          |               | 131.65            | *                  | *                  | *                               | *                                | 5,162           | *                          | *             | *             |
| 1966          |               | 170.21            | *                  | *                  | *                               | *                                | 5,330           | *                          | *             | *             |
| 1967          |               | 171.17            | *                  | *                  | *                               | *                                | 5,503           | *                          | *             | *             |
| 1968          |               | 100.18            | *                  | *                  | *                               | *                                | 5,682           | *                          | *             | *             |
| 1969          | 1             | 127.47            | 1.74               | -                  | 15.51                           | 113.70                           | 5,865           | 19.4                       | 113.70        | -             |
| 1970          | 2             | 180.25            | -                  | -                  | 21.63                           | 158.62                           | 6,051           | 26.2                       | 158.62        | -             |
| 1971          | 3             | 126.68            | -                  | -                  | 15.20                           | 111.48                           | 6,240           | 17.9                       | 111.48        | -             |
| 1972          | 4             | 160.98            | -                  | -                  | 19.32                           | 141.66                           | 6,432           | 22.0                       | 141.66        | -             |
| 1973          | 5             | 205.67            | 7.69               | -                  | 25.60                           | 187.76                           | 6,629           | 28.3                       | 187.76        | -             |
| 1974          | 6             | 233.55            | 30.50              | -                  | 31.69                           | 232.36                           | 6,829           | 34.0                       | 232.36        | -             |
| 1975          | 7             | 319.68            | 30.77              | 15.38              | 40.21                           | 294.86                           | 7,035           | 41.9                       | 294.86        | -             |
| 1976          | 8             | 311.77            |                    | 21.08              | 34.88                           | 255.81                           | 7,243           | 35.3                       | 255.81        | -             |
| 1977          | 9             | 327.62            | 18.46              | 5.38               | 40.88                           | 299.82                           | 7,455           | 40.2                       | 299.82        | -             |
| 1978          | 10            | 225.27            | 0.76               | 0.02               | 27.12                           | 198.89                           | 7,671           | 25.9                       | 198.89        | -             |
| 1979          | 11            | 318.47            | 38.46              | 0.01               | 42.83                           | 314.09                           | 7,893           | 39.8                       | 314.09        | -             |
| 1980          | 12            | 380.61            | 33.85              | -                  | 49.74                           | 364.72                           | 8,123           | 44.9                       | 364.72        | -             |
| 1981          | 13            | 434.40            | 15.38              | 15.38              | 52.13                           | 382.27                           | 8,361           | 45.7                       | 382.27        | -             |
| 1982          | 14            | 384.36            | 13.85              | -                  | 47.79                           | 350.42                           | 8,606           | 40.7                       | 350.42        | -             |
| 1983          | 15            | 273.50            | 53.85              | -                  | 39.28                           | 288.07                           | 8,857           | 32.5                       | 288.07        | -             |
| 1984          | 16            | 437.17            | 6.15               | -                  | 53.20                           | 390.12                           | 9,115           | 42.8                       | 390.12        | -             |
| 1985          | 17            | 397.35            | 21.58              | -                  | 50.27                           | 368.66                           | 9,378           | 39.3                       | 368.66        | -             |
| 1986          | 18            | 575.87            | 0.11               | -                  | 69.12                           | 506.86                           | 9,647           | 52.5                       | 506.86        | -             |
| 1987          |               | *                 | *                  | *                  | *                               | *                                | 9,923           | *                          | *             | *             |
| Pronostico    |               | *8                |                    |                    |                                 |                                  | *9              |                            |               |               |
| 2000          | 32            | 554.00            | -                  | -                  | 66.00                           | 488.00                           | 13,939          | 53.0                       | 739.00        | -251.00       |
| 2005          | 37            | 594.00            | -                  | -                  | 71.00                           | 523.00                           | 15,509          | 55.0                       | 853.00        | -330.00       |
| 2010          | 42            | 631.00            | -                  | -                  | 76.00                           | 555.00                           | 17,099          | 58.0                       | 992.00        | -437.00       |
| 2015          | 47            | 666.00            | -                  | -                  | 80.00                           | 586.00                           | 18,689          | 60.0                       | 1,121.00      | -535.00       |
| 2020          | 52            | 699.00            | -                  | -                  | 84.00                           | 615.00                           | 20,279          | 62.0                       | 1,257.00      | -642.00       |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Áreas, 1986-1987.

\*5 1969-1986: (7) = (5)/(6)

\*6 1969-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Alimentario, 1979-1981 Promedio, 1 2000-2020: (8) = (6) x (7)

$$*7 \quad (9) = (5) \cdot (8)$$

\*8  $y = a * x^b$      $a = 104,94$     $b = 0,479876$      $r = 0,88$      $x = \text{Años en orden}$      $y = \text{Producción}$

\*9  $y = a * x^b$   $a = 17,66$   $b = 0,316647$   $r = 0,82$   $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (2/46)

| Cebada     |               |                   |                    |                    |                                 |                                  |                 |                             |               |
|------------|---------------|-------------------|--------------------|--------------------|---------------------------------|----------------------------------|-----------------|-----------------------------|---------------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                                 |                                  | Demanda Interna |                             | *7<br>Balance |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla<br>y Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5  |               |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                        | (1.000t)                         | (1.000)         | (kg)<br>Demanda<br>(1.000t) |               |
| Actual     |               | (1)               | (2)                | (3)                | (4)                             | (5)                              | (6)             | (7)                         | (8)           |
| 1962       |               | 104.52            | *                  | *                  | *                               | 104.52                           | 4,696           | *                           | *             |
| 1963       |               | 121.32            | *                  | *                  | *                               | 121.32                           | 4,846           | *                           | *             |
| 1964       |               | 79.62             | *                  | *                  | *                               | 79.62                            | 5,001           | *                           | *             |
| 1965       |               | 91.88             | *                  | *                  | *                               | 91.88                            | 5,162           | *                           | *             |
| 1966       |               | 76.89             | *                  | *                  | *                               | 76.89                            | 5,330           | *                           | *             |
| 1967       |               | 81.42             | *                  | *                  | *                               | 81.42                            | 5,503           | *                           | *             |
| 1968       |               | 76.01             | *                  | *                  | *                               | 76.01                            | 5,682           | *                           | *             |
| 1969       | 1             | 77.66             | -                  | -                  | 13.20                           | 64.46                            | 5,865           | 11.0                        | 64.46         |
| 1970       | 2             | 109.99            | 5.10               | -                  | 19.57                           | 95.52                            | 6,051           | 15.8                        | 95.52         |
| 1971       | 3             | 68.69             | 5.50               | -                  | 12.61                           | 61.58                            | 6,240           | 9.9                         | 61.58         |
| 1972       | 4             | 73.39             | 3.20               | -                  | 13.02                           | 63.57                            | 6,432           | 9.9                         | 63.57         |
| 1973       | 5             | 79.38             | 9.00               | -                  | 15.02                           | 73.36                            | 6,629           | 11.1                        | 73.36         |
| 1974       | 6             | 56.15             | 10.38              | -                  | 11.31                           | 55.22                            | 6,829           | 8.1                         | 55.22         |
| 1975       | 7             | 62.80             | 10.40              | -                  | 12.44                           | 60.76                            | 7,035           | 8.6                         | 60.76         |
| 1976       | 8             | 61.78             | 11.00              | -                  | 12.37                           | 60.41                            | 7,243           | 8.3                         | 60.41         |
| 1977       | 9             | 40.78             | 20.00              | -                  | 10.33                           | 50.45                            | 7,455           | 6.8                         | 50.45         |
| 1978       | 10            | 21.76             | 17.23              | -                  | 6.63                            | 32.36                            | 7,671           | 4.2                         | 32.36         |
| 1979       | 11            | 20.72             | 22.00              | -                  | 7.26                            | 35.46                            | 7,893           | 4.5                         | 35.46         |
| 1980       | 12            | 24.35             | 32.06              | -                  | 9.59                            | 46.82                            | 8,123           | 5.8                         | 46.82         |
| 1981       | 13            | 27.09             | 36.00              | -                  | 10.73                           | 52.36                            | 8,361           | 6.3                         | 52.36         |
| 1982       | 14            | 35.44             | 26.00              | -                  | 10.44                           | 51.00                            | 8,606           | 5.9                         | 51.00         |
| 1983       | 15            | 29.59             | 26.60              | -                  | 9.55                            | 46.64                            | 8,857           | 5.3                         | 46.64         |
| 1984       | 16            | 24.95             | 0.96               | -                  | 4.40                            | 21.51                            | 9,115           | 2.4                         | 21.51         |
| 1985       | 17            | 26.72             | 18.00              | -                  | 7.60                            | 37.12                            | 9,378           | 4.0                         | 37.12         |
| 1986       | 18            | 43.83             | 19.90              | -                  | 10.83                           | 52.90                            | 9,647           | 5.5                         | 52.90         |
| 1987       |               | *                 | *                  | *                  | *                               | *                                | 9,923           | *                           | *             |
| Pronostico |               |                   |                    |                    |                                 |                                  |                 |                             |               |
| 2000       | 32            | 20.00             | -                  | -                  | 3.00                            | 17.00                            | 13,939          | 3.5                         | 49.00         |
| 2005       | 37            | 19.00             | -                  | -                  | 3.00                            | 16.00                            | 15,509          | 3.3                         | 51.00         |
| 2010       | 42            | 18.00             | -                  | -                  | 3.00                            | 15.00                            | 17,099          | 3.1                         | 53.00         |
| 2015       | 47            | 17.00             | -                  | -                  | 3.00                            | 14.00                            | 18,689          | 2.9                         | 54.00         |
| 2020       | 52            | 16.00             | -                  | -                  | 3.00                            | 13.00                            | 20,279          | 2.8                         | 57.00         |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1969-1986: (7) = (5)/(6)

\*3 Semilla y desperdicio: 17% (4) = {(1)+(2)-(3)} x 17%

\*6 1969-1986: (8) = (5)

Fuente: FAO, Hojas de Balance Alimentario, 1979-1981 Promedio, 1984 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a * x^b$   $a = 123.61$   $b = -0.519723$   $r = 0.79$   $x =$  Años en orden  $y =$  Producción

\*9  $y = a * x^b$   $a = 16.99$   $b = -0.456335$   $r = 0.80$   $x =$  Años en orden  $y =$  Consumo

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (3/46)

| Frejol     |               |                   |                    |                    |                                 |                                  |                 |                            |               |          |
|------------|---------------|-------------------|--------------------|--------------------|---------------------------------|----------------------------------|-----------------|----------------------------|---------------|----------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                                 |                                  | Demanda Interna |                            |               | *7       |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla<br>y Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda | Balance  |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                        | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      | (1.000t) |
| Actual     |               | (1)               | (2)                | (3)                | (4)                             | (5)                              | (6)             | (7)                        | (8)           | (9)      |
| 1962       | 1             | 20.95             | *                  | *                  | 2.93                            | 18.02                            | 4,696           | 3.8                        | 18.02         | -        |
| 1963       | 2             | 25.75             | *                  | *                  | 3.61                            | 22.14                            | 4,846           | 4.6                        | 22.14         | -        |
| 1964       | 3             | 24.64             | *                  | *                  | 3.45                            | 21.19                            | 5,001           | 4.2                        | 21.19         | -        |
| 1965       | 4             | 31.09             | *                  | *                  | 4.35                            | 26.74                            | 5,162           | 5.2                        | 26.74         | -        |
| 1966       | 5             | 36.50             | *                  | *                  | 5.11                            | 31.39                            | 5,330           | 5.9                        | 31.39         | -        |
| 1967       | 6             | 37.83             | *                  | *                  | 5.30                            | 32.53                            | 5,503           | 5.9                        | 32.53         | -        |
| 1968       | 7             | 35.44             | *                  | *                  | 4.96                            | 30.48                            | 5,682           | 5.4                        | 30.48         | -        |
| 1969       | 8             | 37.90             | *                  | *                  | 5.31                            | 32.59                            | 5,865           | 5.6                        | 32.59         | -        |
| 1970       | 9             | 41.33             | *                  | *                  | 5.79                            | 35.54                            | 6,051           | 5.9                        | 35.54         | -        |
| 1971       | 10            | 30.15             | *                  | *                  | 4.22                            | 25.93                            | 6,240           | 4.2                        | 25.93         | -        |
| 1972       | 11            | 26.04             | *                  | *                  | 3.65                            | 22.39                            | 6,432           | 3.5                        | 22.39         | -        |
| 1973       | 12            | 31.96             | *                  | *                  | 4.47                            | 27.49                            | 6,629           | 4.1                        | 27.49         | -        |
| 1974       | 13            | 28.00             | *                  | *                  | 3.92                            | 24.08                            | 6,829           | 3.5                        | 24.08         | -        |
| 1975       | 14            | 26.10             | *                  | *                  | 3.65                            | 22.45                            | 7,035           | 3.2                        | 22.45         | -        |
| 1976       | 15            | 33.05             | *                  | *                  | 4.63                            | 28.42                            | 7,243           | 3.9                        | 28.42         | -        |
| 1977       | 16            | 26.00             | *                  | *                  | 3.64                            | 22.36                            | 7,455           | 3.0                        | 22.36         | -        |
| 1978       | 17            | 18.76             | *                  | *                  | 2.63                            | 16.13                            | 7,671           | 2.1                        | 16.13         | -        |
| 1979       | 18            | 23.20             | *                  | *                  | 3.25                            | 19.95                            | 7,893           | 2.5                        | 19.95         | -        |
| 1980       | 19            | 26.28             | *                  | *                  | 3.68                            | 22.60                            | 8,123           | 2.8                        | 22.60         | -        |
| 1981       | 20            | 29.70             | *                  | *                  | 4.16                            | 25.54                            | 8,361           | 3.1                        | 25.54         | -        |
| 1982       | 21            | 28.54             | *                  | *                  | 4.00                            | 24.54                            | 8,606           | 2.9                        | 24.54         | -        |
| 1983       | 22            | 20.28             | *                  | *                  | 2.84                            | 17.44                            | 8,857           | 2.0                        | 17.44         | -        |
| 1984       | 23            | 26.06             | *                  | *                  | 3.65                            | 22.41                            | 9,115           | 2.5                        | 22.41         | -        |
| 1985       | 24            | *                 | *                  | *                  | *                               | *                                | 9,378           | *                          | *             | *        |
| 1986       | 25            | *                 | *                  | *                  | *                               | *                                | 9,647           | *                          | *             | *        |
| 1987       |               | *                 | *                  | *                  | *                               | *                                | 9,923           | *                          | *             | *        |
| Pronostico |               | *8                |                    |                    |                                 |                                  | *9              |                            |               |          |
| 2000       | 39            | 28.90             | -                  | -                  | 4.00                            | 24.90                            | 13,939          | 2.7                        | 37.60         | -12.70   |
| 2005       | 44            | 28.90             | -                  | -                  | 4.00                            | 24.90                            | 15,509          | 2.6                        | 40.00         | -15.10   |
| 2010       | 49            | 28.90             | -                  | -                  | 4.00                            | 24.90                            | 17,099          | 2.5                        | 43.00         | -18.10   |
| 2015       | 54            | 28.90             | -                  | -                  | 4.00                            | 24.90                            | 18,689          | 2.4                        | 45.00         | -20.10   |
| 2020       | 59            | 28.90             | -                  | -                  | 4.00                            | 24.90                            | 20,279          | 2.3                        | 47.00         | -22.10   |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1969-1986: (7) = (5)/(6) \*6

\*3 Semilla y desperdicio: 14% (4) = ((1)+(2)-(3)) x 14%

\*4 (5) = (1) + (2) - (3) - (4) \*7

Fuente: FAO, Hoja de Balance Alimentario, 1979-1981 Promedio, 198 2000-2020: (8) = (6) x (7)

\*8 Se usó el promedio de 1962 a 1984 para simular producción, en vista de, tendencia estacionaria.

y = a + bx a = 32,445 b = -0,2923 x = Años en orden y = Producción r = (Nivel de confi

\*9 y = a + b \* LOGx a = 5,49 b = -1,89990 r = 0,58 x = Year in order y = Consumo

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (4/46)

| Haba       |               |                   |                    |                    |                                 |                                  |                 |                            |               |               |
|------------|---------------|-------------------|--------------------|--------------------|---------------------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años       | Años en Orden | Oferta interna    |                    |                    |                                 |                                  | Demanda interna |                            |               | *7<br>Balance |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla<br>y Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                        | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
| Actual     |               | (1)               | (2)                | (3)                | (4)                             | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962       | 1             | 17.32             | *                  | *                  | 3.46                            | 13.86                            | 4,696           | 3.0                        | 13.86         | -             |
| 1963       | 2             | 25.86             | *                  | *                  | 5.17                            | 20.69                            | 4,846           | 4.3                        | 20.69         | -             |
| 1964       | 3             | 19.31             | *                  | *                  | 3.86                            | 15.45                            | 5,001           | 3.1                        | 15.45         | -             |
| 1965       | 4             | 23.36             | *                  | *                  | 4.67                            | 18.69                            | 5,162           | 3.6                        | 18.69         | -             |
| 1966       | 5             | 20.69             | *                  | *                  | 4.14                            | 16.55                            | 5,330           | 3.1                        | 16.55         | -             |
| 1967       | 6             | 19.76             | *                  | *                  | 3.95                            | 15.81                            | 5,503           | 2.9                        | 15.81         | -             |
| 1968       | 7             | 20.01             | *                  | *                  | 4.00                            | 16.01                            | 5,682           | 2.8                        | 16.01         | -             |
| 1969       | 8             | 10.96             | *                  | *                  | 2.19                            | 8.77                             | 5,865           | 1.5                        | 8.77          | -             |
| 1970       | 9             | 15.01             | *                  | *                  | 3.00                            | 12.01                            | 6,051           | 2.0                        | 12.01         | -             |
| 1971       | 10            | 14.86             | *                  | *                  | 2.97                            | 11.89                            | 6,240           | 1.9                        | 11.89         | -             |
| 1972       | 11            | 9.48              | *                  | *                  | 1.90                            | 7.58                             | 6,432           | 1.2                        | 7.58          | -             |
| 1973       | 12            | 12.35             | *                  | *                  | 2.47                            | 9.88                             | 6,629           | 1.5                        | 9.88          | -             |
| 1974       | 13            | 11.65             | *                  | *                  | 2.33                            | 9.32                             | 6,829           | 1.4                        | 9.32          | -             |
| 1975       | 14            | 15.63             | *                  | *                  | 3.13                            | 12.50                            | 7,035           | 1.8                        | 12.50         | -             |
| 1976       | 15            | 13.06             | *                  | *                  | 2.61                            | 10.45                            | 7,243           | 1.4                        | 10.45         | -             |
| 1977       | 16            | 8.00              | *                  | *                  | 1.60                            | 6.40                             | 7,455           | 0.9                        | 6.40          | -             |
| 1978       | 17            | 3.43              | *                  | *                  | 0.69                            | 2.74                             | 7,671           | 0.4                        | 2.74          | -             |
| 1979       | 18            | 4.06              | *                  | *                  | 0.81                            | 3.25                             | 7,893           | 0.4                        | 3.25          | -             |
| 1980       | 19            | 4.57              | *                  | *                  | 0.91                            | 3.66                             | 8,123           | 0.5                        | 3.66          | -             |
| 1981       | 20            | 5.15              | *                  | *                  | 1.03                            | 4.12                             | 8,361           | 0.5                        | 4.12          | -             |
| 1982       | 21            | 5.23              | *                  | *                  | 1.05                            | 4.18                             | 8,606           | 0.5                        | 4.18          | -             |
| 1983       | 22            | 5.28              | *                  | *                  | 1.06                            | 4.22                             | 8,857           | 0.5                        | 4.22          | -             |
| 1984       | 23            | 4.71              | *                  | *                  | 0.94                            | 3.77                             | 9,115           | 0.4                        | 3.77          | -             |
| 1985       | 24            | 10.60             | *                  | *                  | 2.12                            | 8.48                             | 9,378           | 0.9                        | 8.48          | -             |
| 1986       | 25            | 14.35             | *                  | *                  | 2.87                            | 11.48                            | 9,647           | 1.2                        | 11.48         | -             |
| 1987       |               | *                 | *                  | *                  | *                               | *                                | 9,923           | *                          | *             | *             |
| Pronostico |               | *8                |                    |                    |                                 |                                  |                 | *9                         |               |               |
| 2000       | 39            | 5.40              | -                  | -                  | 1.10                            | 4.30                             | 13,939          | 0.5                        | 7.00          | -2.70         |
| 2005       | 44            | 5.00              | -                  | -                  | 1.00                            | 4.00                             | 15,509          | 0.4                        | 6.20          | -2.20         |
| 2010       | 49            | 4.80              | -                  | -                  | 1.00                            | 3.80                             | 17,099          | 0.4                        | 6.80          | -3.00         |
| 2015       | 54            | 4.50              | -                  | -                  | 0.90                            | 3.60                             | 18,689          | 0.4                        | 7.50          | -3.90         |
| 2020       | 59            | 4.30              | -                  | -                  | 0.90                            | 3.40                             | 20,279          | 0.3                        | 6.10          | -2.70         |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1969-1986: (7) = (5)/(6)

\*3 Semilla y desperdicio: 20% (4) = ((1)+(2)-(3)) x 20%

\*6 1969-1986: (8) = (5)

Fuente: FAO, Hoja de Balance alimentario, 1979-1981 Promedio, 198 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a * x^b$   $a = 35,53$   $b = -0,516025$   $r = 0,70$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9  $y = a * x^b$   $a = 7,4020$   $b = -0,755286$   $r = 0,81$   $x = \text{Años en orden}$   $y = \text{Consumo}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (5/46)

| Maíz           |               |              |               |               |                                  |                          |           |                      |            |          |
|----------------|---------------|--------------|---------------|---------------|----------------------------------|--------------------------|-----------|----------------------|------------|----------|
| Oferta interna |               |              |               |               |                                  | Demanda interna          |           |                      | *7         |          |
| Años           | Años en Orden | Producción*1 | Importación*2 | Exportación*2 | Semilla, Alimento y Desperdicio* | Disponibilidad Consumo*4 | Población | Consumo per Capita*5 | *6 Demanda | Balance  |
|                |               | (1.000t)     | (1.000t)      | (1.000t)      | (1.000t)                         | (1.000t)                 | (1.000)   | (kg)                 | (1.000t)   | (1.000t) |
| Actual         |               | (1)          | (2)           | (3)           | (4)                              | (5)                      | (6)       | (7)                  | (8)        | (9)      |
| 1962           |               | 136.9        | *             | *             | *                                | *                        | 4,696     | *                    | *          | *        |
| 1963           |               | 189.6        | *             | *             | *                                | *                        | 4,846     | *                    | *          | *        |
| 1964           |               | 127.2        | *             | *             | *                                | *                        | 5,001     | *                    | *          | *        |
| 1965           |               | 189.1        | *             | *             | *                                | *                        | 5,162     | *                    | *          | *        |
| 1966           |               | 174.9        | *             | *             | *                                | *                        | 5,330     | *                    | *          | *        |
| 1967           |               | 227.8        | *             | *             | *                                | *                        | 5,503     | *                    | *          | *        |
| 1968           |               | 129.3        | *             | *             | *                                | *                        | 5,682     | *                    | *          | *        |
| 1969           | 1             | 222.5        | -             | 0.2           | 82.3                             | 140.0                    | 5,865     | 23.9                 | 140.0      | -        |
| 1970           | 2             | 269.5        | -             | -             | 99.7                             | 169.8                    | 6,051     | 28.1                 | 169.8      | -        |
| 1971           | 3             | 260.9        | -             | -             | 96.5                             | 164.4                    | 6,240     | 26.3                 | 164.4      | -        |
| 1972           | 4             | 271.4        | -             | -             | 100.4                            | 171.0                    | 6,432     | 26.6                 | 171.0      | -        |
| 1973           | 5             | 253.7        | -             | -             | 93.9                             | 159.8                    | 6,629     | 24.1                 | 159.8      | -        |
| 1974           | 6             | 261.9        | 0.3           | -             | 97.0                             | 165.2                    | 6,829     | 24.2                 | 165.2      | -        |
| 1975           | 7             | 293.6        | 9.0           | -             | 112.0                            | 190.6                    | 7,035     | 27.1                 | 190.6      | -        |
| 1976           | 8             | 314.8        | 9.0           | -             | 119.8                            | 204.0                    | 7,243     | 28.2                 | 204.0      | -        |
| 1977           | 9             | 218.5        | 10.4          | -             | 84.7                             | 144.2                    | 7,455     | 19.3                 | 144.2      | -        |
| 1978           | 10            | 175.8        | 20.3          | -             | 72.6                             | 123.5                    | 7,671     | 16.1                 | 123.5      | -        |
| 1979           | 11            | 217.9        | -             | -             | 80.6                             | 137.3                    | 7,893     | 17.4                 | 137.3      | -        |
| 1980           | 12            | 241.7        | -             | -             | 89.4                             | 152.3                    | 8,123     | 18.7                 | 152.3      | -        |
| 1981           | 13            | 281.2        | -             | 1.0           | 103.7                            | 176.5                    | 8,361     | 21.1                 | 176.5      | -        |
| 1982           | 14            | 324.0        | -             | 15.5          | 114.1                            | 194.4                    | 8,606     | 22.6                 | 194.4      | -        |
| 1983           | 15            | 229.4        | 10.5          | -             | 88.8                             | 151.1                    | 8,857     | 17.1                 | 151.1      | -        |
| 1984           | 16            | 325.8        | 4.0           | -             | 122.0                            | 207.8                    | 9,115     | 22.8                 | 207.8      | -        |
| 1985           | 17            | 544.0        | 14.0          | -             | 206.5                            | 351.5                    | 9,378     | 37.5                 | 351.5      | -        |
| 1986           | 18            | 481.6        | 0.1           | -             | 178.2                            | 303.5                    | 9,647     | 31.5                 | 303.5      | -        |
| 1987           |               | *            | *             | *             | *                                | *                        | 9,923     | *                    | *          | *        |
| Pronostico     |               | *8           |               |               |                                  |                          | *9        |                      |            |          |
| 2000           | 32            | 499.0        | -             | -             | 185.0                            | 314.0                    | 13,939    | 24.0                 | 335.0      | -21.0    |
| 2005           | 37            | 545.9        | -             | -             | 202.0                            | 343.9                    | 15,509    | 24.0                 | 372.0      | -28.1    |
| 2010           | 42            | 592.7        | -             | -             | 219.0                            | 373.7                    | 17,099    | 24.0                 | 410.0      | -36.3    |
| 2015           | 47            | 639.6        | -             | -             | 237.0                            | 402.6                    | 18,689    | 24.0                 | 449.0      | -46.4    |
| 2020           | 52            | 686.4        | -             | -             | 254.0                            | 432.4                    | 20,279    | 24.0                 | 487.0      | -54.6    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1969-1986: (7) = (5)/(6)

\*3 Semilla, alimento y desperdicio: 3 (4) = ((1)+(2)-(3)) x 3

\*6 1969-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Alimentario, 1979-1981 Promedio, 198 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a + bx$   $a = 199,23$   $b = 9,37$   $r = 0,55$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9 Se usó el promedio de 1962 a 1986 para simular producción, en vista de tendencia estacionaria

$y = a * x^b$   $a = 25,8$   $b = -0,047679$   $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

$r = 0,17$  (Nivel de confianza 5%, df. = 16:  $r > 0,468$  no correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA TOTAL PAIS (6/46)

| Trigo         |    |                   |                    |                    |                                 |                                  |                |                            |               |          |
|---------------|----|-------------------|--------------------|--------------------|---------------------------------|----------------------------------|----------------|----------------------------|---------------|----------|
| Años          |    | Oferta Interna    |                    |                    |                                 | Demanda Interna                  |                |                            | *7            |          |
| Años en Orden |    | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla<br>y Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción | Consumo<br>per<br>Capita*5 | *6<br>Demanda | Balance  |
|               |    | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                        | (1.000t)                         | (1.000)        | (kg)                       | (1.000t)      | (1.000t) |
| Actual        |    | (1)               | (2)                | (3)                | (4)                             | (5)                              | (6)            | (7)                        | (8)           | (9)      |
| 1962          |    | 77.05             | *                  | *                  | *                               | *                                | 4,696          | *                          | *             | *        |
| 1963          |    | 66.65             | *                  | *                  | *                               | *                                | 4,846          | *                          | *             | *        |
| 1964          |    | 62.32             | *                  | *                  | *                               | *                                | 5,001          | *                          | *             | *        |
| 1965          |    | 65.09             | *                  | *                  | *                               | *                                | 5,162          | *                          | *             | *        |
| 1966          |    | 62.73             | *                  | *                  | *                               | *                                | 5,330          | *                          | *             | *        |
| 1967          |    | 78.55             | *                  | *                  | *                               | *                                | 5,503          | *                          | *             | *        |
| 1968          |    | 82.91             | *                  | *                  | *                               | *                                | 5,682          | *                          | *             | *        |
| 1969          | 1  | 94.10             | 58.96              | -                  | 21.43                           | 131.63                           | 5,865          | 22.4                       | 131.63        | -        |
| 1970          | 2  | 81.00             | 73.05              | -                  | 21.57                           | 132.48                           | 6,051          | 21.9                       | 132.48        | -        |
| 1971          | 3  | 68.49             | 92.91              | -                  | 22.60                           | 138.80                           | 6,240          | 22.2                       | 138.80        | -        |
| 1972          | 4  | 50.64             | 114.44             | -                  | 23.11                           | 141.97                           | 6,432          | 22.1                       | 141.97        | -        |
| 1973          | 5  | 45.19             | 124.82             | -                  | 23.80                           | 146.21                           | 6,629          | 22.1                       | 146.21        | -        |
| 1974          | 6  | 54.99             | 130.89             | -                  | 26.02                           | 159.86                           | 6,829          | 23.4                       | 159.86        | -        |
| 1975          | 7  | 64.65             | 210.05             | -                  | 38.46                           | 236.24                           | 7,035          | 33.6                       | 236.24        | -        |
| 1976          | 8  | 46.42             | 205.49             | -                  | 35.27                           | 216.64                           | 7,243          | 29.9                       | 216.64        | -        |
| 1977          | 9  | 39.80             | 242.50             | -                  | 39.52                           | 242.78                           | 7,455          | 32.6                       | 242.78        | -        |
| 1978          | 10 | 28.90             | 199.40             | -                  | 31.96                           | 196.34                           | 7,671          | 25.6                       | 196.34        | -        |
| 1979          | 11 | 31.25             | 167.63             | -                  | 27.84                           | 171.04                           | 7,893          | 21.7                       | 171.04        | -        |
| 1980          | 12 | 31.11             | 300.59             | -                  | 46.44                           | 285.26                           | 8,123          | 35.1                       | 285.26        | -        |
| 1981          | 13 | 41.43             | 249.26             | -                  | 40.70                           | 249.99                           | 8,361          | 29.9                       | 249.99        | -        |
| 1982          | 14 | 38.54             | 325.97             | -                  | 51.03                           | 313.48                           | 8,606          | 36.4                       | 313.48        | -        |
| 1983          | 15 | 26.91             | 280.92             | -                  | 43.10                           | 264.73                           | 8,857          | 29.9                       | 264.73        | -        |
| 1984          | 16 | 25.17             | 270.90             | -                  | 41.45                           | 254.62                           | 9,115          | 27.9                       | 254.62        | -        |
| 1985          | 17 | 18.46             | 221.10             | -                  | 33.54                           | 206.02                           | 9,378          | 22.0                       | 206.02        | -        |
| 1986          | 18 | 33.01             | 242.50             | -                  | 38.57                           | 236.94                           | 9,647          | 24.6                       | 236.94        | -        |
| 1987          |    | *                 | *                  | *                  | *                               | *                                | 9,923          | *                          | *             | *        |
| Pronostico    |    |                   |                    |                    |                                 |                                  |                |                            |               |          |
| 2000          | 32 | 21.00             | -                  | -                  | 3.00                            | 18.00                            | 13,939         | 31.0                       | 432.00        | -414.00  |
| 2005          | 37 | 20.00             | -                  | -                  | 3.00                            | 17.00                            | 15,509         | 32.0                       | 496.00        | -479.00  |
| 2010          | 42 | 18.00             | -                  | -                  | 3.00                            | 15.00                            | 17,099         | 32.0                       | 547.00        | -532.00  |
| 2015          | 47 | 18.00             | -                  | -                  | 3.00                            | 15.00                            | 18,689         | 32.0                       | 598.00        | -583.00  |
| 2020          | 52 | 17.00             | -                  | -                  | 2.00                            | 15.00                            | 20,279         | 33.0                       | 669.00        | -654.00  |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Semilla y desperdicio: 14% (4) = {(1)+(2)-(3)} x 14%

Fuente: FAO, Hoja de Balance Alimentario, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$   $a = 108,80$   $b = -0,474311$   $r = 0,88$

\*5 1969-1986: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1969-1986: (8) = (5) \*9  $y = a * x^b$   $a = 21,10$   $b = 0,111018$   $r = 0,48$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (7/46)

| Camote     |               |                |               |               |                         |                          |           |                      |            |          |
|------------|---------------|----------------|---------------|---------------|-------------------------|--------------------------|-----------|----------------------|------------|----------|
|            |               | Oferta Interna |               |               |                         | Demanda Interna          |           |                      | *7         |          |
| Años       | Años en Orden | Producción*1   | Importación*2 | Exportación*2 | Semilla y Desperdicio*3 | Disponibilidad Consumo*4 | Población | Consumo per Capita*5 | *6 Demanda | Balance  |
|            |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)                | (1.000t)                 | (1.000)   | (kg)                 | (1.000t)   | (1.000t) |
| Actual     |               | (1)            | (2)           | (3)           | (4)                     | (5)                      | (6)       | (7)                  | (8)        | (9)      |
| 1962       | 1             | 22.33          | *             | *             | 7.37                    | 14.96                    | 4,696     | 3.2                  | 14.96      | -        |
| 1963       | 2             | 16.73          | *             | *             | 5.52                    | 11.21                    | 4,846     | 2.3                  | 11.21      | -        |
| 1964       | 3             | 15.63          | *             | *             | 5.16                    | 10.47                    | 5,001     | 2.1                  | 10.47      | -        |
| 1965       | 4             | 8.17           | *             | *             | 2.70                    | 5.47                     | 5,162     | 1.1                  | 5.47       | -        |
| 1966       | 5             | 7.90           | *             | *             | 2.61                    | 5.29                     | 5,330     | 1.0                  | 5.29       | -        |
| 1967       | 6             | 7.86           | *             | *             | 2.59                    | 5.27                     | 5,503     | 1.0                  | 5.27       | -        |
| 1968       | 7             | 6.74           | *             | *             | 2.22                    | 4.52                     | 5,682     | 0.8                  | 4.52       | -        |
| 1969       | 8             | 11.31          | *             | *             | 3.73                    | 7.58                     | 5,865     | 1.3                  | 7.58       | -        |
| 1970       | 9             | 10.46          | *             | *             | 3.45                    | 7.01                     | 6,051     | 1.2                  | 7.01       | -        |
| 1971       | 10            | 6.83           | *             | *             | 2.25                    | 4.58                     | 6,240     | 0.7                  | 4.58       | -        |
| 1972       | 11            | 8.92           | *             | *             | 2.94                    | 5.98                     | 6,432     | 0.9                  | 5.98       | -        |
| 1973       | 12            | 8.37           | *             | *             | 2.76                    | 5.61                     | 6,629     | 0.8                  | 5.61       | -        |
| 1974       | 13            | 10.62          | *             | *             | 3.50                    | 7.12                     | 6,829     | 1.0                  | 7.12       | -        |
| 1975       | 14            | 13.59          | *             | *             | 4.48                    | 9.11                     | 7,035     | 1.3                  | 9.11       | -        |
| 1976       | 15            | 13.54          | *             | *             | 4.47                    | 9.07                     | 7,243     | 1.3                  | 9.07       | -        |
| 1977       | 16            | 6.29           | *             | *             | 2.08                    | 4.21                     | 7,455     | 0.6                  | 4.21       | -        |
| 1978       | 17            | 3.95           | *             | *             | 1.30                    | 2.65                     | 7,671     | 0.3                  | 2.65       | -        |
| 1979       | 18            | 4.16           | *             | *             | 1.37                    | 2.79                     | 7,893     | 0.4                  | 2.79       | -        |
| 1980       | 19            | 2.71           | *             | *             | 0.89                    | 1.82                     | 8,123     | 0.2                  | 1.82       | -        |
| 1981       | 20            | 3.62           | *             | *             | 1.19                    | 2.43                     | 8,361     | 0.3                  | 2.43       | -        |
| 1982       | 21            | 5.35           | *             | *             | 1.77                    | 3.58                     | 8,606     | 0.4                  | 3.58       | -        |
| 1983       | 22            | 6.56           | *             | *             | 2.16                    | 4.40                     | 8,857     | 0.5                  | 4.40       | -        |
| 1984       | 23            | 8.30           | *             | *             | 2.74                    | 5.56                     | 9,115     | 0.6                  | 5.56       | -        |
| 1985       | 24            | 4.83           | *             | *             | 1.59                    | 3.24                     | 9,378     | 0.3                  | 3.24       | -        |
| 1986       | 25            | 2.14           | *             | *             | 0.71                    | 1.43                     | 9,647     | 0.1                  | 1.43       | -        |
| 1987       |               | 3.06           | *             | *             | *                       | *                        | 9,923     | *                    | *          | *        |
| Pronóstico |               | *8             |               |               |                         |                          | *9        |                      |            |          |
| 2000       | 39            | 3.90           | -             | -             | 1.30                    | 2.60                     | 13,939    | 0.3                  | 4.20       | -1.60    |
| 2005       | 44            | 3.70           | -             | -             | 1.20                    | 2.50                     | 15,509    | 0.2                  | 3.10       | -0.60    |
| 2010       | 49            | 3.50           | -             | -             | 1.20                    | 2.30                     | 17,099    | 0.2                  | 3.40       | -1.10    |
| 2015       | 54            | 3.30           | -             | -             | 1.10                    | 2.20                     | 18,689    | 0.2                  | 3.70       | -1.50    |
| 2020       | 59            | 3.20           | -             | -             | 1.10                    | 2.10                     | 20,279    | 0.2                  | 4.10       | -2.00    |

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (8/46)

| Papa       |             |                   |                    |                    |                                        |                                  |                 |                            |               |               |
|------------|-------------|-------------------|--------------------|--------------------|----------------------------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años       | en<br>Orden | Oferta Interna    |                    |                    |                                        |                                  | Demanda Interna |                            |               | *7<br>Balance |
|            |             | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla,<br>Alimento y<br>Desperdicio* | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|            |             | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                               | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
| Actual     |             | (1)               | (2)                | (3)                | (4)                                    | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962       | 1           | 331.57            | -                  | -                  | 86.21                                  | 245.36                           | 4,696           | 52.2                       | 245.36        | -             |
| 1963       | 2           | 297.65            | -                  | -                  | 77.39                                  | 220.26                           | 4,846           | 45.5                       | 220.26        | -             |
| 1964       | 3           | 320.00            | -                  | -                  | 83.20                                  | 236.80                           | 5,001           | 47.4                       | 236.80        | -             |
| 1965       | 4           | 390.84            | -                  | -                  | 101.62                                 | 289.22                           | 5,162           | 56.0                       | 289.22        | -             |
| 1966       | 5           | 347.04            | -                  | -                  | 90.23                                  | 256.81                           | 5,330           | 48.2                       | 256.81        | -             |
| 1967       | 6           | 398.59            | -                  | -                  | 103.63                                 | 294.96                           | 5,503           | 53.6                       | 294.96        | -             |
| 1968       | 7           | 510.87            | -                  | -                  | 132.83                                 | 378.04                           | 5,682           | 66.5                       | 378.04        | -             |
| 1969       | 8           | 456.69            | -                  | -                  | 118.74                                 | 337.95                           | 5,865           | 57.6                       | 337.95        | -             |
| 1970       | 9           | 541.79            | -                  | -                  | 140.87                                 | 400.92                           | 6,051           | 66.3                       | 400.92        | -             |
| 1971       | 10          | 680.74            | -                  | -                  | 176.99                                 | 503.75                           | 6,240           | 80.7                       | 503.75        | -             |
| 1972       | 11          | 473.35            | -                  | -                  | 123.07                                 | 350.28                           | 6,432           | 54.5                       | 350.28        | -             |
| 1973       | 12          | 539.20            | -                  | -                  | 140.19                                 | 399.01                           | 6,629           | 60.2                       | 399.01        | -             |
| 1974       | 13          | 503.34            | -                  | -                  | 130.87                                 | 372.47                           | 6,829           | 54.5                       | 372.47        | -             |
| 1975       | 14          | 499.37            | -                  | -                  | 129.84                                 | 369.53                           | 7,035           | 52.5                       | 369.53        | -             |
| 1976       | 15          | 554.70            | -                  | -                  | 144.22                                 | 410.48                           | 7,243           | 56.7                       | 410.48        | -             |
| 1977       | 16          | 418.86            | -                  | -                  | 108.90                                 | 309.96                           | 7,455           | 41.6                       | 309.96        | -             |
| 1978       | 17          | 349.37            | -                  | -                  | 90.84                                  | 258.53                           | 7,671           | 33.7                       | 258.53        | -             |
| 1979       | 18          | 261.53            | -                  | -                  | 68.00                                  | 193.53                           | 7,893           | 24.5                       | 193.53        | -             |
| 1980       | 19          | 329.47            | -                  | -                  | 85.66                                  | 243.81                           | 8,123           | 30.0                       | 243.81        | -             |
| 1981       | 20          | 398.08            | -                  | -                  | 103.50                                 | 294.58                           | 8,361           | 35.2                       | 294.58        | -             |
| 1982       | 21          | 435.44            | -                  | -                  | 113.21                                 | 322.23                           | 8,606           | 37.4                       | 322.23        | -             |
| 1983       | 22          | 339.61            | -                  | -                  | 88.30                                  | 251.31                           | 8,857           | 28.4                       | 251.31        | -             |
| 1984       | 23          | 410.39            | -                  | -                  | 106.70                                 | 303.69                           | 9,115           | 33.3                       | 303.69        | -             |
| 1985       | 24          | 429.97            | -                  | -                  | 111.79                                 | 318.18                           | 9,378           | 33.9                       | 318.18        | -             |
| 1986       | 25          | 389.89            | -                  | -                  | 101.37                                 | 288.52                           | 9,647           | 29.9                       | 288.52        | -             |
| 1987       |             | *                 | *                  | *                  | *                                      | *                                | 9,923           | *                          | *             | *             |
| Pronostico |             | *8                |                    |                    |                                        |                                  |                 | *9                         |               |               |
| 2000       | 39          | 424.00            | -                  | -                  | 110.00                                 | 314.00                           | 13,939          | 37.0                       | 516.00        | -202.00       |
| 2005       | 44          | 424.00            | -                  | -                  | 110.00                                 | 314.00                           | 15,509          | 36.0                       | 558.00        | -244.00       |
| 2010       | 49          | 424.00            | -                  | -                  | 110.00                                 | 314.00                           | 17,099          | 35.0                       | 598.00        | -284.00       |
| 2015       | 54          | 424.00            | -                  | -                  | 110.00                                 | 314.00                           | 18,689          | 34.0                       | 635.00        | -321.00       |
| 2020       | 59          | 424.00            | -                  | -                  | 110.00                                 | 314.00                           | 20,279          | 33.0                       | 669.00        | -355.00       |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Semilla, alimento y desperdicio: 2 (4) = ((1)+(2)-(3)) x 26

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8 Se usó el promedio de 1962 a 1986 para simular producción, en vista de tendencia estacionaria

y = a \* x^b a = 358,40 b = 0,062212 x = Años en orden y = Producción

r = 0, (Nivel de confianza 5%, df. = 23 : r > 0,391 No correlación)

\*9 y = a \* x^b a = 69,24 b = -0,184420 r = 0,50 x = Años en orden y = Consumo



Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (9/46)

| Yuca       |               |                |               |               |                          |                          |                 |                      |                  |
|------------|---------------|----------------|---------------|---------------|--------------------------|--------------------------|-----------------|----------------------|------------------|
|            |               | Oferta Interna |               |               |                          |                          | Demanda Interna |                      |                  |
| Años       | Años en Orden | Producción     | Importación*1 | Exportación*1 | Alimento y Desperdicio*2 | Disponibilidad Consumo*3 | Población       | Consumo per Capita*4 | *5               |
|            |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)                 | (1.000t)                 | (1.000)         | (kg)                 | Demanda (1.000t) |
|            |               | (1)            | (2)           | (3)           | (4)                      | (5)                      | (6)             | (7)                  | (8)              |
| Actual     |               |                |               |               |                          |                          |                 |                      | (9)              |
| 1962       | 1             | 209.64         | -             | -             | 77.57                    | 132.07                   | 4,696           | 28.1                 | 132.07           |
| 1963       | 2             | 206.73         | -             | -             | 76.49                    | 130.24                   | 4,846           | 26.9                 | 130.24           |
| 1964       | 3             | 186.34         | -             | -             | 68.95                    | 117.39                   | 5,001           | 23.5                 | 117.39           |
| 1965       | 4             | 250.50         | -             | -             | 92.69                    | 157.81                   | 5,162           | 30.6                 | 157.81           |
| 1966       | 5             | 275.97         | -             | -             | 102.11                   | 173.86                   | 5,330           | 32.6                 | 173.86           |
| 1967       | 6             | 322.93         | -             | -             | 119.48                   | 203.45                   | 5,503           | 37.0                 | 203.45           |
| 1968       | 7             | 234.02         | -             | -             | 86.59                    | 147.43                   | 5,682           | 25.9                 | 147.43           |
| 1969       | 8             | 390.18         | -             | -             | 144.37                   | 245.81                   | 5,865           | 41.9                 | 245.81           |
| 1970       | 9             | 371.37         | -             | -             | 137.41                   | 233.96                   | 6,051           | 38.7                 | 233.96           |
| 1971       | 10            | 383.02         | -             | -             | 141.72                   | 241.30                   | 6,240           | 38.7                 | 241.30           |
| 1972       | 11            | 276.89         | -             | -             | 102.45                   | 174.44                   | 6,432           | 27.1                 | 174.44           |
| 1973       | 12            | 741.27         | -             | -             | 274.27                   | 467.00                   | 6,629           | 70.4                 | 467.00           |
| 1974       | 13            | 837.67         | -             | -             | 309.94                   | 527.73                   | 6,829           | 77.3                 | 527.73           |
| 1975       | 14            | 597.18         | -             | -             | 220.96                   | 376.22                   | 7,035           | 53.5                 | 376.22           |
| 1976       | 15            | 377.81         | -             | -             | 139.79                   | 238.02                   | 7,243           | 32.9                 | 238.02           |
| 1977       | 16            | 223.55         | -             | -             | 82.71                    | 140.84                   | 7,455           | 18.9                 | 140.84           |
| 1978       | 17            | 167.99         | -             | -             | 62.16                    | 105.83                   | 7,671           | 13.8                 | 105.83           |
| 1979       | 18            | 182.66         | -             | -             | 67.58                    | 115.08                   | 7,893           | 14.6                 | 115.08           |
| 1980       | 19            | 229.31         | -             | -             | 84.84                    | 144.47                   | 8,123           | 17.8                 | 144.47           |
| 1981       | 20            | 236.79         | -             | -             | 87.61                    | 149.18                   | 8,361           | 17.8                 | 149.18           |
| 1982       | 21            | 183.94         | -             | -             | 68.06                    | 115.88                   | 8,606           | 13.5                 | 115.88           |
| 1983       | 22            | 194.79         | -             | -             | 72.07                    | 122.72                   | 8,857           | 13.9                 | 122.72           |
| 1984       | 23            | 239.21         | -             | -             | 88.51                    | 150.70                   | 9,115           | 16.5                 | 150.70           |
| 1985       | 24            | 228.81         | -             | -             | 84.66                    | 144.15                   | 9,378           | 15.4                 | 144.15           |
| 1986       | 25            | 118.02         | -             | -             | 43.67                    | 74.35                    | 9,647           | 7.7                  | 74.35            |
| 1987       |               | *              | *             | *             | *                        | *                        | 9,923           | *                    | *                |
| Pronostico |               | *7             | -             | -             |                          |                          |                 | *8                   |                  |
| 2000       | 39            | 307.00         | -             | -             | 114.00                   | 193.00                   | 13,939          | 16.0                 | 223.00           |
| 2005       | 44            | 307.00         | -             | -             | 114.00                   | 193.00                   | 15,509          | 15.0                 | 233.00           |
| 2010       | 49            | 307.00         | -             | -             | 114.00                   | 193.00                   | 17,099          | 15.0                 | 256.00           |
| 2015       | 54            | 307.00         | -             | -             | 114.00                   | 193.00                   | 18,689          | 14.0                 | 262.00           |
| 2020       | 59            | 307.00         | -             | -             | 114.00                   | 193.00                   | 20,279          | 14.0                 | 284.00           |

\*1 Fuente: FAO, Anuario Comercial, 1974-1986.

\*2 Alimento y desperdicio: 37% (4) = ((1)+(2)-(3)) x 37%

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Average, 1984. 2000-2020: (8) = (6) x (7)

\*3 (5) = (1) + (2) - (3) - (4)

\*4 1962-1986: (7) = (5)/(6)

\*5 1962-1986: (8) = (5)

\*6 (9) = (8) - (5)

\*7 Se usó el promedio de 1962 a 1986 para simular producción, en vista de, tendencia estacionaria

$y = a + bx$   $a = 304$ ,  $b = -3,073$   $x = \text{Años en orden}$   $y = \text{Producción}$

$r = 0,23$  (Nivel de confianza 5%,  $df = 21$ :  $r > 0.412$  No correlación)

\*8  $y = a * x^b$   $a = 44,0$   $b = -0,280980$   $r = 0,52$   $x = \text{Años en or n}$   $y = \text{Consumo}$

Nota: El consumo y la producción per capita de los años 1973 y 1974 fueron excluidos del analisis, por anomalía en los valores

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (10/46)

| Ajo        |               |                   |                    |                    |                    |                                  |                 |                            |            |            |
|------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|------------|------------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |            | *7 Balance |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6 Demanda |            |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)   |            |
| Actual     |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)        | (9)        |
| 1962       | 1             | 3.32              | *                  | *                  | 0.17               | 3.15                             | 4,696           | 0.67                       | 3.15       | -          |
| 1963       | 2             | 3.57              | *                  | *                  | 0.18               | 3.39                             | 4,846           | 0.70                       | 3.39       | -          |
| 1964       | 3             | 3.97              | *                  | *                  | 0.20               | 3.77                             | 5,001           | 0.75                       | 3.77       | -          |
| 1965       | 4             | 4.01              | *                  | *                  | 0.20               | 3.81                             | 5,162           | 0.74                       | 3.81       | -          |
| 1966       | 5             | 4.42              | *                  | *                  | 0.22               | 4.20                             | 5,330           | 0.79                       | 4.20       | -          |
| 1967       | 6             | 3.03              | *                  | *                  | 0.15               | 2.88                             | 5,503           | 0.52                       | 2.88       | -          |
| 1968       | 7             | 3.05              | *                  | *                  | 0.15               | 2.90                             | 5,682           | 0.51                       | 2.90       | -          |
| 1969       | 8             | 3.83              | *                  | *                  | 0.19               | 3.64                             | 5,865           | 0.62                       | 3.64       | -          |
| 1970       | 9             | 4.39              | *                  | *                  | 0.22               | 4.17                             | 6,051           | 0.69                       | 4.17       | -          |
| 1971       | 10            | 5.34              | *                  | *                  | 0.27               | 5.07                             | 6,240           | 0.81                       | 5.07       | -          |
| 1972       | 11            | 8.40              | *                  | *                  | 0.42               | 7.98                             | 6,432           | 1.24                       | 7.98       | -          |
| 1973       | 12            | 3.87              | *                  | *                  | 0.19               | 3.68                             | 6,629           | 0.56                       | 3.68       | -          |
| 1974       | 13            | 4.09              | *                  | *                  | 0.20               | 3.89                             | 6,829           | 0.57                       | 3.89       | -          |
| 1975       | 14            | 3.87              | *                  | *                  | 0.19               | 3.68                             | 7,035           | 0.52                       | 3.68       | -          |
| 1976       | 15            | 6.72              | *                  | *                  | 0.34               | 6.38                             | 7,243           | 0.88                       | 6.38       | -          |
| 1977       | 16            | 2.31              | *                  | *                  | 0.12               | 2.19                             | 7,455           | 0.29                       | 2.19       | -          |
| 1978       | 17            | 1.06              | *                  | *                  | 0.05               | 1.01                             | 7,671           | 0.13                       | 1.01       | -          |
| 1979       | 18            | 1.11              | *                  | *                  | 0.06               | 1.05                             | 7,893           | 0.13                       | 1.05       | -          |
| 1980       | 19            | 1.91              | *                  | *                  | 0.10               | 1.81                             | 8,123           | 0.22                       | 1.81       | -          |
| 1981       | 20            | 2.06              | *                  | *                  | 0.10               | 1.96                             | 8,361           | 0.23                       | 1.96       | -          |
| 1982       | 21            | 2.81              | *                  | *                  | 0.14               | 2.67                             | 8,606           | 0.31                       | 2.67       | -          |
| 1983       | 22            | 2.84              | *                  | *                  | 0.14               | 2.70                             | 8,857           | 0.30                       | 2.70       | -          |
| 1984       | 23            | 2.71              | *                  | *                  | 0.14               | 2.57                             | 9,115           | 0.28                       | 2.57       | -          |
| 1985       | 24            | 2.71              | *                  | *                  | 0.14               | 2.57                             | 9,378           | 0.27                       | 2.57       | -          |
| 1986       | 25            | 1.54              | *                  | *                  | 0.08               | 1.46                             | 9,647           | 0.15                       | 1.46       | -          |
| 1987       |               | *                 | *                  | *                  | *                  | *                                | 9,923           | *                          | *          | *          |
| Pronostico |               | *8                |                    |                    |                    |                                  | *9              |                            |            |            |
| 2000       | 39            | 1.60              | -                  | -                  | 0.10               | 1.50                             | 13,939          | 0.14                       | 2.00       | -0.50      |
| 2005       | 44            | 1.50              | -                  | -                  | 0.10               | 1.40                             | 15,509          | 0.13                       | 2.00       | -0.60      |
| 2010       | 49            | 1.40              | -                  | -                  | 0.10               | 1.30                             | 17,099          | 0.12                       | 2.10       | -0.80      |
| 2015       | 54            | 1.40              | -                  | -                  | 0.10               | 1.30                             | 18,689          | 0.12                       | 2.20       | -0.90      |
| 2020       | 59            | 1.30              | -                  | -                  | 0.10               | 1.20                             | 20,279          | 0.11                       | 2.20       | -1.00      |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 No hay datos disponibles. Se estima que el comercio del ajo es insignificante

\*5 1962-1986: (7) = (5)/(6)

\*6 1962-1986: (8) = (5)

2000-2020: (8) = (6) x (7)

\*3 Desperdicio: Se asume el 5% (4) = ((1)+(2)-(3)) x 5%

\*7 (9) = (5) - (8)

\*4 (5) = (1) + (2) - (3) - (4)

\*8  $y = a * x^b$   $a = 6.52$   $b = -0.391265$   $r = 0.56$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9  $y = a * x^b$   $a = 1.19$   $b = r = 0.69$   $r = 0.80$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (11/46)

| Cebolla    |               |                   |                    |                    |                    |                                  |                 |                            |               |                           |
|------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|---------------------------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7<br>Balance<br>(1.000t) |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |                           |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |                           |
| Actual     |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)                       |
| 1962       | 1             | 249.97            | -                  | -                  | 37.50              | 212.47                           | 4,696           | 45.2                       | 212.47        | -                         |
| 1963       | 2             | 243.67            | -                  | -                  | 36.55              | 207.12                           | 4,846           | 42.7                       | 207.12        | -                         |
| 1964       | 3             | 166.88            | -                  | -                  | 25.03              | 141.85                           | 5,001           | 28.4                       | 141.85        | -                         |
| 1965       | 4             | 114.24            | -                  | -                  | 17.14              | 97.10                            | 5,162           | 18.8                       | 97.10         | -                         |
| 1966       | 5             | 111.48            | -                  | -                  | 16.72              | 94.76                            | 5,330           | 17.8                       | 94.76         | -                         |
| 1967       | 6             | 97.49             | -                  | -                  | 14.62              | 82.87                            | 5,503           | 15.1                       | 82.87         | -                         |
| 1968       | 7             | 70.96             | -                  | -                  | 10.64              | 60.32                            | 5,682           | 10.6                       | 60.32         | -                         |
| 1969       | 8             | 95.96             | -                  | -                  | 14.39              | 81.57                            | 5,865           | 13.9                       | 81.57         | -                         |
| 1970       | 9             | 94.88             | -                  | -                  | 14.23              | 80.65                            | 6,051           | 13.3                       | 80.65         | -                         |
| 1971       | 10            | 76.79             | -                  | -                  | 11.52              | 65.27                            | 6,240           | 10.5                       | 65.27         | -                         |
| 1972       | 11            | 56.66             | -                  | -                  | 8.50               | 48.16                            | 6,432           | 7.5                        | 48.16         | -                         |
| 1973       | 12            | 33.69             | -                  | -                  | 5.05               | 28.64                            | 6,629           | 4.3                        | 28.64         | -                         |
| 1974       | 13            | 34.48             | -                  | -                  | 5.17               | 29.31                            | 6,829           | 4.3                        | 29.31         | -                         |
| 1975       | 14            | 45.57             | -                  | -                  | 6.84               | 38.73                            | 7,035           | 5.5                        | 38.73         | -                         |
| 1976       | 15            | 57.89             | -                  | -                  | 8.68               | 49.21                            | 7,243           | 6.8                        | 49.21         | -                         |
| 1977       | 16            | 33.03             | -                  | -                  | 4.95               | 28.08                            | 7,455           | 3.8                        | 28.08         | -                         |
| 1978       | 17            | 24.40             | -                  | -                  | 3.66               | 20.74                            | 7,671           | 2.7                        | 20.74         | -                         |
| 1979       | 18            | 26.41             | -                  | -                  | 3.96               | 22.45                            | 7,893           | 2.8                        | 22.45         | -                         |
| 1980       | 19            | 30.11             | -                  | -                  | 4.52               | 25.59                            | 8,123           | 3.2                        | 25.59         | -                         |
| 1981       | 20            | 42.13             | -                  | -                  | 6.32               | 35.81                            | 8,361           | 4.3                        | 35.81         | -                         |
| 1982       | 21            | 41.67             | -                  | -                  | 6.25               | 35.42                            | 8,606           | 4.1                        | 35.42         | -                         |
| 1983       | 22            | 40.67             | -                  | -                  | 6.10               | 34.57                            | 8,857           | 3.9                        | 34.57         | -                         |
| 1984       | 23            | 50.71             | -                  | -                  | 7.61               | 43.10                            | 9,115           | 4.7                        | 43.10         | -                         |
| 1985       | 24            | 55.48             | -                  | -                  | 8.32               | 47.16                            | 9,378           | 5.0                        | 47.16         | -                         |
| 1986       | 25            | 36.84             | -                  | -                  | 5.53               | 31.31                            | 9,647           | 3.2                        | 31.31         | -                         |
| 1987       |               | *                 | *                  | *                  | *                  | *                                | 9,923           | *                          | *             | *                         |
| Pronostico |               | *8                |                    |                    |                    |                                  | *9              |                            |               |                           |
| 2000       | 39            | 27.00             | -                  | -                  | 4.00               | 23.00                            | 13,939          | 2.6                        | 36.00         | -13.00                    |
| 2005       | 44            | 25.00             | -                  | -                  | 4.00               | 21.00                            | 15,509          | 2.2                        | 34.00         | -13.00                    |
| 2010       | 49            | 23.00             | -                  | -                  | 3.00               | 20.00                            | 17,099          | 2.0                        | 34.00         | -14.00                    |
| 2015       | 54            | 21.00             | -                  | -                  | 3.00               | 18.00                            | 18,689          | 1.8                        | 34.00         | -16.00                    |
| 2020       | 59            | 19.00             | -                  | -                  | 3.00               | 16.00                            | 20,279          | 1.6                        | 32.00         | -16.00                    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Desperdicio: 15% (4) = ((1)+(2)-(3)) x 15%

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance nutricional, 1979-1981 promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a * x^b$

a = 315,

b = -0,705660

r = 0,90

x = Años en orden

y = Producción

\*9  $y = a * x^b$

a = 70,2

b = -0,953181

r = 0,94

x = Años en orden

y = Consumo

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (12/46)

| Col        |               |                   |                    |                    |                    |                                  |                 |                            |               |                     |
|------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|---------------------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7 Balance (1.000t) |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |                     |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |                     |
| Actual     |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)                 |
| 1962       | 1             | 87.09             | -                  | -                  | 14.81              | 72.28                            | 4,696           | 15.4                       | 72.28         | -                   |
| 1963       | 2             | 70.17             | -                  | -                  | 11.93              | 58.24                            | 4,846           | 12.0                       | 58.24         | -                   |
| 1964       | 3             | 54.59             | -                  | -                  | 9.28               | 45.31                            | 5,001           | 9.1                        | 45.31         | -                   |
| 1965       | 4             | 57.98             | -                  | -                  | 9.86               | 48.12                            | 5,162           | 9.3                        | 48.12         | -                   |
| 1966       | 5             | 55.23             | -                  | -                  | 9.39               | 45.84                            | 5,330           | 8.6                        | 45.84         | -                   |
| 1967       | 6             | 110.81            | -                  | -                  | 18.84              | 91.97                            | 5,503           | 16.7                       | 91.97         | -                   |
| 1968       | 7             | 72.32             | -                  | -                  | 12.29              | 60.03                            | 5,682           | 10.6                       | 60.03         | -                   |
| 1969       | 8             | 92.98             | -                  | -                  | 15.81              | 77.17                            | 5,865           | 13.2                       | 77.17         | -                   |
| 1970       | 9             | 77.97             | -                  | -                  | 13.25              | 64.72                            | 6,051           | 10.7                       | 64.72         | -                   |
| 1971       | 10            | 81.29             | -                  | -                  | 13.82              | 67.47                            | 6,240           | 10.8                       | 67.47         | -                   |
| 1972       | 11            | 61.58             | -                  | -                  | 10.47              | 51.11                            | 6,432           | 7.9                        | 51.11         | -                   |
| 1973       | 12            | 45.93             | -                  | -                  | 7.81               | 38.12                            | 6,629           | 5.8                        | 38.12         | -                   |
| 1974       | 13            | 40.98             | -                  | -                  | 6.97               | 34.01                            | 6,829           | 5.0                        | 34.01         | -                   |
| 1975       | 14            | 43.41             | -                  | -                  | 7.38               | 36.03                            | 7,035           | 5.1                        | 36.03         | -                   |
| 1976       | 15            | 46.17             | -                  | -                  | 7.85               | 38.32                            | 7,243           | 5.3                        | 38.32         | -                   |
| 1977       | 16            | 43.28             | -                  | -                  | 7.36               | 35.92                            | 7,455           | 4.8                        | 35.92         | -                   |
| 1978       | 17            | 26.47             | -                  | -                  | 4.50               | 21.97                            | 7,671           | 2.9                        | 21.97         | -                   |
| 1979       | 18            | 20.85             | -                  | -                  | 3.54               | 17.31                            | 7,893           | 2.2                        | 17.31         | -                   |
| 1980       | 19            | 24.76             | -                  | -                  | 4.21               | 20.55                            | 8,123           | 2.5                        | 20.55         | -                   |
| 1981       | 20            | 25.37             | -                  | -                  | 4.31               | 21.06                            | 8,361           | 2.5                        | 21.06         | -                   |
| 1982       | 21            | 22.84             | -                  | -                  | 3.88               | 18.96                            | 8,606           | 2.2                        | 18.96         | -                   |
| 1983       | 22            | 26.40             | -                  | -                  | 4.49               | 21.91                            | 8,857           | 2.5                        | 21.91         | -                   |
| 1984       | 23            | 31.63             | -                  | -                  | 5.38               | 26.25                            | 9,115           | 2.9                        | 26.25         | -                   |
| 1985       | 24            | 25.92             | -                  | -                  | 4.41               | 21.51                            | 9,378           | 2.3                        | 21.51         | -                   |
| 1986       | 25            | 14.10             | -                  | -                  | 2.40               | 11.70                            | 9,647           | 1.2                        | 11.70         | -                   |
| 1987       |               | *                 | *                  | *                  | *                  | *                                | 9,923           | *                          | *             | *                   |
| Pronostico |               | *8                |                    |                    |                    |                                  |                 | *9                         |               |                     |
| 2000       | 39            | 25.00             | -                  | -                  | 4.00               | 21.00                            | 13,939          | 2.3                        | 32.00         | -11.00              |
| 2005       | 44            | 24.00             | -                  | -                  | 4.00               | 20.00                            | 15,509          | 2.1                        | 33.00         | -13.00              |
| 2010       | 49            | 22.00             | -                  | -                  | 4.00               | 18.00                            | 17,099          | 1.9                        | 32.00         | -14.00              |
| 2015       | 54            | 21.00             | -                  | -                  | 4.00               | 17.00                            | 18,689          | 1.8                        | 34.00         | -17.00              |
| 2020       | 59            | 20.00             | -                  | -                  | 3.00               | 17.00                            | 20,279          | 1.7                        | 34.00         | -17.00              |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Desperdicio: 17% (4) = ((1)+(2)-(3)) x 17%

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984, 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a * x^b$   $a = 133,15$   $b = -0,477171$   $r = 0,73$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9  $y = a * x^b$   $a = 28,87$   $b = -0,723777$   $r = 0,81$   $x = \text{Años en orden}$   $y = \text{Consumo}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (13/46)

| Lechuga    |             |                   |                    |                    |                    |                                  |                 |                            |               |               |
|------------|-------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años       | en<br>Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7<br>Balance |
|            |             | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|            |             | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
|            |             | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           |               |
| Actual     |             | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962       | 1           | 34.60             | -                  | -                  | 5.88               | 28.72                            | 4,696           | 6.1                        | 28.72         | -             |
| 1963       | 2           | 42.13             | -                  | -                  | 7.16               | 34.97                            | 4,846           | 7.2                        | 34.97         | -             |
| 1964       | 3           | 26.16             | -                  | -                  | 4.45               | 21.71                            | 5,001           | 4.3                        | 21.71         | -             |
| 1965       | 4           | 21.18             | -                  | -                  | 3.60               | 17.58                            | 5,162           | 3.4                        | 17.58         | -             |
| 1966       | 5           | 18.73             | -                  | -                  | 3.18               | 15.55                            | 5,330           | 2.9                        | 15.55         | -             |
| 1967       | 6           | 14.42             | -                  | -                  | 2.45               | 11.97                            | 5,503           | 2.2                        | 11.97         | -             |
| 1968       | 7           | 15.48             | -                  | -                  | 2.63               | 12.85                            | 5,682           | 2.3                        | 12.85         | -             |
| 1969       | 8           | 10.98             | -                  | -                  | 1.87               | 9.11                             | 5,865           | 1.6                        | 9.11          | -             |
| 1970       | 9           | 11.29             | -                  | -                  | 1.92               | 9.37                             | 6,051           | 1.5                        | 9.37          | -             |
| 1971       | 10          | 9.87              | -                  | -                  | 1.68               | 8.19                             | 6,240           | 1.3                        | 8.19          | -             |
| 1972       | 11          | 9.21              | -                  | -                  | 1.57               | 7.64                             | 6,432           | 1.2                        | 7.64          | -             |
| 1973       | 12          | 8.24              | -                  | -                  | 1.40               | 6.84                             | 6,629           | 1.0                        | 6.84          | -             |
| 1974       | 13          | 9.26              | -                  | -                  | 1.57               | 7.69                             | 6,829           | 1.1                        | 7.69          | -             |
| 1975       | 14          | 11.33             | -                  | -                  | 1.93               | 9.40                             | 7,035           | 1.3                        | 9.40          | -             |
| 1976       | 15          | 13.65             | -                  | -                  | 2.32               | 11.33                            | 7,243           | 1.6                        | 11.33         | -             |
| 1977       | 16          | 7.19              | -                  | -                  | 1.22               | 5.97                             | 7,455           | 0.8                        | 5.97          | -             |
| 1978       | 17          | 4.44              | -                  | -                  | 0.75               | 3.69                             | 7,671           | 0.5                        | 3.69          | -             |
| 1979       | 18          | 4.19              | -                  | -                  | 0.71               | 3.48                             | 7,893           | 0.4                        | 3.48          | -             |
| 1980       | 19          | 5.74              | -                  | -                  | 0.98               | 4.76                             | 8,123           | 0.6                        | 4.76          | -             |
| 1981       | 20          | 7.91              | -                  | -                  | 1.34               | 6.57                             | 8,361           | 0.8                        | 6.57          | -             |
| 1982       | 21          | 7.66              | -                  | -                  | 1.30               | 6.36                             | 8,606           | 0.7                        | 6.36          | -             |
| 1983       | 22          | 10.48             | -                  | -                  | 1.78               | 8.70                             | 8,857           | 1.0                        | 8.70          | -             |
| 1984       | 23          | 13.08             | -                  | -                  | 2.22               | 10.86                            | 9,115           | 1.2                        | 10.86         | -             |
| 1985       | 24          | 10.91             | -                  | -                  | 1.85               | 9.06                             | 9,378           | 1.0                        | 9.06          | -             |
| 1986       | 25          | 8.13              | -                  | -                  | 1.38               | 6.75                             | 9,647           | 0.7                        | 6.75          | -             |
| 1987       |             | *                 | *                  | *                  | *                  | *                                | 9,923           | *                          | *             | *             |
| Pronostico |             | *8                |                    |                    |                    |                                  |                 | *9                         |               |               |
| 2000       | 39          | 5.30              | -                  | -                  | 0.90               | 4.40                             | 13,939          | 0.5                        | 7.00          | -2.60         |
| 2005       | 44          | 5.00              | -                  | -                  | 0.90               | 4.10                             | 15,509          | 0.4                        | 6.20          | -2.10         |
| 2010       | 49          | 4.70              | -                  | -                  | 0.80               | 3.90                             | 17,099          | 0.4                        | 6.80          | -2.90         |
| 2015       | 54          | 4.40              | -                  | -                  | 0.70               | 3.70                             | 18,689          | 0.4                        | 7.50          | -3.80         |
| 2020       | 59          | 4.20              | -                  | -                  | 0.70               | 3.50                             | 20,279          | 0.3                        | 6.10          | -2.60         |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Desperdicio: 17% (4) = {(1)+(2)-(3)} x 17%

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a * x^b$   $a = 42,28$   $b = -0,565621$   $r = 0,83$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9  $y = a * x^b$   $a = 9,13$   $b = -0,811770$   $r = 0,91$   $x = \text{Años en orden}$   $y = \text{Consumo}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (14/46)

| Melón    |               |                               |                                |                                |                                |                                              |                           |                                    |                           |                           |
|----------|---------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|---------------------------|---------------------------|
| Años     | Años en Orden | Oferta Interna                |                                |                                |                                |                                              | Demanda Interna           |                                    |                           | *7<br>Balance<br>(1.000t) |
|          |               | Produc-<br>ción*1<br>(1.000t) | Importa-<br>ción*2<br>(1.000t) | Exporta-<br>ción*2<br>(1.000t) | Desper-<br>dicio*3<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*4<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*5<br>(kg) | *6<br>Demanda<br>(1.000t) |                           |
|          |               | (1)                           | (2)                            | (3)                            | (4)                            | (5)                                          | (6)                       | (7)                                | (8)                       | (9)                       |
| Actual   |               |                               |                                |                                |                                |                                              |                           |                                    |                           |                           |
| 1962     | 1             | 1.30                          | -                              | -                              | 0.18                           | 1.12                                         | 4,696                     | 0.2                                | 1.12                      | -                         |
| 1963     | 2             | 1.55                          | -                              | -                              | 0.22                           | 1.33                                         | 4,846                     | 0.3                                | 1.33                      | -                         |
| 1964     | 3             | 2.15                          | -                              | -                              | 0.30                           | 1.85                                         | 5,001                     | 0.4                                | 1.85                      | -                         |
| 1965     | 4             | 1.69                          | -                              | -                              | 0.24                           | 1.45                                         | 5,162                     | 0.3                                | 1.45                      | -                         |
| 1966     | 5             | 1.18                          | -                              | -                              | 0.17                           | 1.01                                         | 5,330                     | 0.2                                | 1.01                      | -                         |
| 1967     | 6             | 0.00                          | -                              | -                              | 0.00                           | 0.00                                         | 5,503                     | 0.0                                | 0.00                      | -                         |
| 1968     | 7             | 0.91                          | -                              | -                              | 0.13                           | 0.78                                         | 5,682                     | 0.1                                | 0.78                      | -                         |
| 1969     | 8             | 0.72                          | -                              | -                              | 0.10                           | 0.62                                         | 5,865                     | 0.1                                | 0.62                      | -                         |
| 1970     | 9             | 1.59                          | -                              | -                              | 0.22                           | 1.37                                         | 6,051                     | 0.2                                | 1.37                      | -                         |
| 1971     | 10            | 2.21                          | -                              | -                              | 0.31                           | 1.90                                         | 6,240                     | 0.3                                | 1.90                      | -                         |
| 1972     | 11            | 10.46                         | -                              | -                              | 1.46                           | 9.00                                         | 6,432                     | 1.4                                | 9.00                      | -                         |
| 1973     | 12            | 9.23                          | -                              | -                              | 1.29                           | 7.94                                         | 6,629                     | 1.2                                | 7.94                      | -                         |
| 1974     | 13            | 7.86                          | -                              | -                              | 1.10                           | 6.76                                         | 6,829                     | 1.0                                | 6.76                      | -                         |
| 1975     | 14            | 7.31                          | -                              | -                              | 1.02                           | 6.29                                         | 7,035                     | 0.9                                | 6.29                      | -                         |
| 1976     | 15            | 6.55                          | -                              | -                              | 0.92                           | 5.63                                         | 7,243                     | 0.8                                | 5.63                      | -                         |
| 1977     | 16            | 7.13                          | -                              | -                              | 1.00                           | 6.13                                         | 7,455                     | 0.8                                | 6.13                      | -                         |
| 1978     | 17            | 5.19                          | -                              | -                              | 0.73                           | 4.46                                         | 7,671                     | 0.6                                | 4.46                      | -                         |
| 1979     | 18            | 4.98                          | -                              | -                              | 0.70                           | 4.28                                         | 7,893                     | 0.5                                | 4.28                      | -                         |
| 1980     | 19            | 8.23                          | -                              | -                              | 1.15                           | 7.08                                         | 8,123                     | 0.9                                | 7.08                      | -                         |
| 1981     | 20            | 11.44                         | -                              | -                              | 1.60                           | 9.84                                         | 8,361                     | 1.2                                | 9.84                      | -                         |
| 1982     | 21            | 4.83                          | -                              | -                              | 0.68                           | 4.15                                         | 8,606                     | 0.5                                | 4.15                      | -                         |
| 1983     | 22            | 4.70                          | -                              | -                              | 0.66                           | 4.04                                         | 8,857                     | 0.5                                | 4.04                      | -                         |
| 1984     | 23            | 10.47                         | -                              | -                              | 1.47                           | 9.00                                         | 9,115                     | 1.0                                | 9.00                      | -                         |
| 1985     | 24            | 16.76                         | -                              | -                              | 2.35                           | 14.41                                        | 9,378                     | 1.5                                | 14.41                     | -                         |
| 1986     | 25            | 9.80                          | -                              | -                              | 1.37                           | 8.43                                         | 9,647                     | 0.9                                | 8.43                      | -                         |
| 1987     |               | *                             | *                              | *                              | *                              | *                                            | 9,923                     | *                                  | *                         | *                         |
| Forecast |               | *8                            |                                |                                |                                |                                              |                           | *9                                 |                           |                           |
| 2000     | 39            | 11.80                         | -                              | -                              | 1.70                           | 10.10                                        | 13,939                    | 1.1                                | 15.30                     | -5.20                     |
| 2005     | 44            | 13.00                         | -                              | -                              | 1.80                           | 11.20                                        | 15,509                    | 1.2                                | 18.60                     | -7.40                     |
| 2010     | 49            | 14.20                         | -                              | -                              | 2.00                           | 12.20                                        | 17,099                    | 1.3                                | 22.20                     | -10.00                    |
| 2015     | 54            | 15.40                         | -                              | -                              | 2.20                           | 13.20                                        | 18,689                    | 1.3                                | 24.30                     | -11.10                    |
| 2020     | 59            | 16.50                         | -                              | -                              | 2.30                           | 14.20                                        | 20,279                    | 1.4                                | 28.40                     | -14.20                    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Desperdicio: 14% (4) = ((1)+(2)-(3)) x 14%

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*7 (9) = (5) - (8)

\*4 (5) = (1) + (2) - (3) - (4)

\*8  $y = a * x^b$  a = 0,62 b = 0,803065 r = 0,73 x = Años en orden y = Producción

\*9  $y = a * x^b$  a = 0,13 b = 0,580260 r = 0,61 x = Años en orden y = Consumo

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (15/46)

| Pepinillo |               |                               |                                |                                |                                |                                              |                           |                                    |                           |                           |
|-----------|---------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|---------------------------|---------------------------|
| Años      | Años en Orden | Oferta Interna                |                                |                                |                                | Demanda Interna                              |                           |                                    | *7<br>Balance<br>(1.000t) |                           |
|           |               | Produc-<br>ción*1<br>(1.000t) | Importa-<br>ción*2<br>(1.000t) | Exporta-<br>ción*2<br>(1.000t) | Desper-<br>dicio*3<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*4<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*5<br>(kg) |                           | *6<br>Demanda<br>(1.000t) |
|           |               | (1)                           | (2)                            | (3)                            | (4)                            | (5)                                          | (6)                       | (7)                                |                           | (8)                       |
| Actual    |               |                               |                                |                                |                                |                                              |                           |                                    |                           |                           |
| 1975      |               | *                             | *                              | *                              | *                              | *                                            | 7,039                     | *                                  | *                         | *                         |
| 1976      |               | *                             | *                              | *                              | *                              | *                                            | 7,243                     | *                                  | *                         | *                         |
| 1977      | 1             | 9.88                          | -                              | -                              | 1.09                           | 8.79                                         | 7,455                     | 1.2                                | 8.79                      | -                         |
| 1978      | 2             | 0.32                          | -                              | -                              | 0.04                           | 0.28                                         | 7,671                     | 0.0                                | 0.28                      | -                         |
| 1979      | 3             | 3.26                          | -                              | -                              | 0.36                           | 2.90                                         | 7,893                     | 0.4                                | 2.90                      | -                         |
| 1980      | 4             | 4.47                          | -                              | -                              | 0.49                           | 3.98                                         | 8,123                     | 0.5                                | 3.98                      | -                         |
| 1981      | 5             | 5.55                          | -                              | -                              | 0.61                           | 4.94                                         | 8,361                     | 0.6                                | 4.94                      | -                         |
| 1982      | 6             | 1.64                          | -                              | -                              | 0.18                           | 1.46                                         | 8,606                     | 0.2                                | 1.46                      | -                         |
| 1983      | 7             | 3.16                          | -                              | -                              | 0.35                           | 2.81                                         | 8,857                     | 0.3                                | 2.81                      | -                         |
| 1984      | 8             | 5.86                          | -                              | -                              | 0.64                           | 5.22                                         | 9,115                     | 0.6                                | 5.22                      | -                         |
| 1985      | 9             | 9.05                          | -                              | -                              | 1.00                           | 8.05                                         | 9,378                     | 0.9                                | 8.05                      | -                         |
| 1986      | 10            | 2.12                          | -                              | -                              | 0.23                           | 1.89                                         | 9,647                     | 0.2                                | 1.89                      | -                         |
| 1987      | 11            | 2.53                          | -                              | -                              | 0.28                           | 2.25                                         | 9,923                     | 0.2                                | 2.25                      | -                         |
| Forecast  |               | *8                            |                                |                                |                                |                                              |                           | *9                                 |                           |                           |
| 2000      | 24            | 4.30                          | -                              | -                              | 0.50                           | 3.80                                         | 13,939                    | 0.5                                | 7.00                      | -3.20                     |
| 2005      | 29            | 4.30                          | -                              | -                              | 0.50                           | 3.80                                         | 15,509                    | 0.5                                | 7.80                      | -4.00                     |
| 2010      | 34            | 4.30                          | -                              | -                              | 0.50                           | 3.80                                         | 17,099                    | 0.5                                | 8.50                      | -4.70                     |
| 2015      | 39            | 4.30                          | -                              | -                              | 0.50                           | 3.80                                         | 18,689                    | 0.5                                | 9.30                      | -5.50                     |
| 2020      | 44            | 4.30                          | -                              | -                              | 0.50                           | 3.80                                         | 20,279                    | 0.5                                | 10.10                     | -6.30                     |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1977-1987: (7) = (5)/(6)

\*3 Desperdicio: 11% (4) = {(1)+(2)-(3)} x 11%

\*6 1977-1987: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8 Se usó el promedio de 1977 a 1987 para simular producción, en vista de tendencia estacionaria,

Producción:  $y = a + b * \text{LOG}x$   $a = 5,81$   $b = -2,107122$   $x = \text{Años en orden}$   $y = \text{Producción}$

$r = 0,23$  (Nivel de confianza 5%,  $df. = 9$ : 0,602 No correlación)

Consumo per capita:

$y = a + b * \text{LOG}x$   $a = 0,74$   $b = -0,390618$   $x = \text{Años en orden}$   $y = \text{Consumo}$

$r = 0,37$  (Nivel de confianza 5%,  $df. = 9$ : 0,602 No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (16/46)

| Pimiento   |               |                   |                    |                    |                    |                                  |                 |                            |               |          |
|------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|----------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7       |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda | Balance  |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      | (1.000t) |
| Actual     |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)      |
| 1962       |               | -                 | -                  | -                  | -                  | -                                | 4,696           | -                          | -             | -        |
| 1963       |               | -                 | -                  | -                  | -                  | -                                | 4,846           | -                          | -             | -        |
| 1964       |               | -                 | -                  | -                  | -                  | -                                | 5,001           | -                          | -             | -        |
| 1965       |               | -                 | -                  | -                  | -                  | -                                | 5,162           | -                          | -             | -        |
| 1966       |               | -                 | -                  | -                  | -                  | -                                | 5,330           | -                          | -             | -        |
| 1967       |               | -                 | -                  | -                  | -                  | -                                | 5,503           | -                          | -             | -        |
| 1968       |               | -                 | -                  | -                  | -                  | -                                | 5,682           | -                          | -             | -        |
| 1969       |               | -                 | -                  | -                  | -                  | -                                | 5,865           | -                          | -             | -        |
| 1970       |               | -                 | -                  | -                  | -                  | -                                | 6,051           | -                          | -             | -        |
| 1971       |               | -                 | -                  | -                  | -                  | -                                | 6,240           | -                          | -             | -        |
| 1972       |               | -                 | -                  | -                  | -                  | -                                | 6,432           | -                          | -             | -        |
| 1973       |               | -                 | -                  | -                  | -                  | -                                | 6,629           | -                          | -             | -        |
| 1974       |               | -                 | -                  | -                  | -                  | -                                | 6,829           | -                          | -             | -        |
| 1975       |               | -                 | -                  | -                  | -                  | -                                | 7,035           | -                          | -             | -        |
| 1976       | 1             | 2.91              | -                  | -                  | -                  | 2.91                             | 7,243           | 0.4                        | 2.91          | -        |
| 1977       | 2             | 0.52              | -                  | -                  | -                  | 0.52                             | 7,455           | 0.1                        | 0.52          | -        |
| 1978       | 3             | 2.11              | -                  | -                  | -                  | 2.11                             | 7,671           | 0.3                        | 2.11          | -        |
| 1979       | 4             | 2.06              | -                  | -                  | -                  | 2.06                             | 7,893           | 0.3                        | 2.06          | -        |
| 1980       | 5             | 2.59              | -                  | -                  | -                  | 2.59                             | 8,123           | 0.3                        | 2.59          | -        |
| 1981       | 6             | 3.50              | -                  | -                  | -                  | 3.50                             | 8,361           | 0.4                        | 3.50          | -        |
| 1982       | 7             | 2.76              | 0.02               | -                  | -                  | 2.78                             | 8,606           | 0.3                        | 2.78          | -        |
| 1983       | 8             | 3.05              | 0.01               | -                  | -                  | 3.06                             | 8,857           | 0.3                        | 3.06          | -        |
| 1984       | 9             | 8.23              | -                  | -                  | -                  | 8.23                             | 9,115           | 0.9                        | 8.23          | -        |
| 1985       | 10            | 6.31              | -                  | -                  | -                  | 6.31                             | 9,378           | 0.7                        | 6.31          | -        |
| 1986       | 11            | 4.52              | -                  | -                  | -                  | 4.52                             | 9,647           | 0.5                        | 4.52          | -        |
| 1987       | 12            | 7.01              | -                  | -                  | -                  | 7.01                             | 9,923           | 0.7                        | 7.01          | -        |
| Pronostico |               | *8                |                    |                    |                    |                                  | *9              |                            |               |          |
| 2000       | 25            | 13.00             | -                  | -                  | -                  | 13.00                            | 13,939          | 1.2                        | 16.70         | -3.70    |
| 2005       | 30            | 15.50             | -                  | -                  | -                  | 15.50                            | 15,509          | 1.5                        | 23.30         | -7.80    |
| 2010       | 35            | 17.90             | -                  | -                  | -                  | 17.90                            | 17,099          | 1.7                        | 29.10         | -11.20   |
| 2015       | 40            | 20.40             | -                  | -                  | -                  | 20.40                            | 18,689          | 1.9                        | 35.50         | -15.10   |
| 2020       | 45            | 22.90             | -                  | -                  | -                  | 22.90                            | 20,279          | 2.1                        | 42.60         | -19.70   |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1976-1987: (7) = (5)/(6)

\*3 Desperdicio: Insignificante

\*6 1976-1987: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a + bx$   $a = 0,57$   $b = 0,49$   $r = 0,78$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9  $y = a + bx$   $a = 0,15$   $b = 0,04$   $r = 0,70$   $x = \text{Años en orden}$   $y = \text{Consumo}$



Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (17/46)

| Sandfa     |             |                   |                    |                    |                    |                                  |                 |                            |               |               |
|------------|-------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años       | en<br>Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7<br>Balance |
|            |             | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|            |             | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
|            |             | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           |               |
| Actual     |             | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962       | 1           | 9.54              | -                  | -                  | 1.05               | 8.49                             | 4,696           | 1.8                        | 8.49          | -             |
| 1963       | 2           | 9.02              | -                  | -                  | 0.99               | 8.03                             | 4,846           | 1.7                        | 8.03          | -             |
| 1964       | 3           | 9.87              | -                  | -                  | 1.09               | 8.78                             | 5,001           | 1.8                        | 8.78          | -             |
| 1965       | 4           | 9.13              | -                  | -                  | 1.00               | 8.13                             | 5,162           | 1.6                        | 8.13          | -             |
| 1966       | 5           | 8.08              | -                  | -                  | 0.89               | 7.19                             | 5,330           | 1.3                        | 7.19          | -             |
| 1967       | 6           | 19.94             | -                  | -                  | 2.19               | 17.75                            | 5,503           | 3.2                        | 17.75         | -             |
| 1968       | 7           | 8.26              | -                  | -                  | 0.91               | 7.35                             | 5,682           | 1.3                        | 7.35          | -             |
| 1969       | 8           | 5.48              | -                  | -                  | 0.60               | 4.88                             | 5,865           | 0.8                        | 4.88          | -             |
| 1970       | 9           | 6.50              | -                  | -                  | 0.72               | 5.78                             | 6,051           | 1.0                        | 5.78          | -             |
| 1971       | 10          | 7.13              | -                  | -                  | 0.78               | 6.35                             | 6,240           | 1.0                        | 6.35          | -             |
| 1972       | 11          | 4.70              | -                  | -                  | 0.52               | 4.18                             | 6,432           | 0.6                        | 4.18          | -             |
| 1973       | 12          | 8.21              | -                  | -                  | 0.90               | 7.31                             | 6,629           | 1.1                        | 7.31          | -             |
| 1974       | 13          | 9.12              | -                  | -                  | 1.00               | 8.12                             | 6,829           | 1.2                        | 8.12          | -             |
| 1975       | 14          | 14.13             | -                  | -                  | 1.55               | 12.58                            | 7,035           | 1.8                        | 12.58         | -             |
| 1976       | 15          | 20.49             | -                  | -                  | 2.25               | 18.24                            | 7,243           | 2.5                        | 18.24         | -             |
| 1977       | 16          | 15.47             | -                  | -                  | 1.70               | 13.77                            | 7,455           | 1.8                        | 13.77         | -             |
| 1978       | 17          | 29.17             | -                  | -                  | 3.21               | 25.96                            | 7,671           | 3.4                        | 25.96         | -             |
| 1979       | 18          | 18.68             | -                  | -                  | 2.05               | 16.63                            | 7,893           | 2.1                        | 16.63         | -             |
| 1980       | 19          | 31.68             | -                  | -                  | 3.48               | 28.20                            | 8,123           | 3.5                        | 28.20         | -             |
| 1981       | 20          | 33.55             | -                  | -                  | 3.69               | 29.86                            | 8,361           | 3.6                        | 29.86         | -             |
| 1982       | 21          | 14.71             | -                  | -                  | 1.62               | 13.09                            | 8,606           | 1.5                        | 13.09         | -             |
| 1983       | 22          | 14.09             | -                  | -                  | 1.55               | 12.54                            | 8,857           | 1.4                        | 12.54         | -             |
| 1984       | 23          | 26.67             | -                  | -                  | 2.93               | 23.74                            | 9,115           | 2.6                        | 23.74         | -             |
| 1985       | 24          | 35.27             | -                  | -                  | 3.88               | 31.39                            | 9,378           | 3.3                        | 31.39         | -             |
| 1986       | 25          | 62.96             | -                  | -                  | 6.93               | 56.03                            | 9,647           | 5.8                        | 56.03         | -             |
| 1987       | 26          | 92.37             | -                  | -                  | 10.16              | 82.21                            | 9,923           | 8.3                        | 82.21         | -             |
| Pronostico |             | *8                |                    |                    |                    |                                  | *9              |                            |               |               |
| 2000       | 39          | 65.30             | -                  | -                  | 7.20               | 58.10                            | 13,939          | 5.6                        | 78.10         | -20.00        |
| 2005       | 44          | 74.20             | -                  | -                  | 8.20               | 66.00                            | 15,509          | 6.3                        | 97.70         | -31.70        |
| 2010       | 49          | 83.00             | -                  | -                  | 9.10               | 73.90                            | 17,099          | 6.9                        | 118.00        | -44.10        |
| 2015       | 54          | 91.90             | -                  | -                  | 10.10              | 81.80                            | 18,689          | 7.6                        | 142.00        | -60.20        |
| 2020       | 59          | 100.70            | -                  | -                  | 11.10              | 89.60                            | 20,279          | 8.2                        | 166.30        | -76.70        |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1987: (7) = (5)/(6)

\*3 Desperdicio: 11% (4) = {(1)+(2)-(3)} x 11%

\*6 1962-1987: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a + bx$   $a = -3,738$   $b = 1,770$   $r = 0,69$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*9  $y = a + bx$   $a = 0,551$   $b = 0,130$   $r = 0,59$   $x = \text{Años en orden}$   $y = \text{Consumo}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (18/46)

| Tomate   |               |                   |                    |                    |                    |                                  |                 |                            |            |            |
|----------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|------------|------------|
| Años     | Años en Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |            | *7 Balance |
|          |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6 Demanda |            |
|          |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)   |            |
| Actual   |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)        | (9)        |
| 1962     | 1             | 63.64             | -                  | -                  | 10.18              | 53.46                            | 4,696           | 11.4                       | 53.46      | -          |
| 1963     | 2             | 67.92             | -                  | -                  | 10.87              | 57.05                            | 4,846           | 11.8                       | 57.05      | -          |
| 1964     | 3             | 78.65             | -                  | -                  | 12.58              | 66.07                            | 5,001           | 13.2                       | 66.07      | -          |
| 1965     | 4             | 52.95             | -                  | -                  | 8.47               | 44.48                            | 5,162           | 8.6                        | 44.48      | -          |
| 1966     | 5             | 98.50             | -                  | -                  | 15.76              | 82.74                            | 5,330           | 15.5                       | 82.74      | -          |
| 1967     | 6             | 57.42             | -                  | -                  | 9.19               | 48.23                            | 5,503           | 8.8                        | 48.23      | -          |
| 1968     | 7             | 38.59             | -                  | -                  | 6.17               | 32.42                            | 5,682           | 5.7                        | 32.42      | -          |
| 1969     | 8             | 25.19             | -                  | -                  | 4.03               | 21.16                            | 5,865           | 3.6                        | 21.16      | -          |
| 1970     | 9             | 24.19             | -                  | -                  | 3.87               | 20.32                            | 6,051           | 3.4                        | 20.32      | -          |
| 1971     | 10            | 24.44             | -                  | -                  | 3.91               | 20.53                            | 6,240           | 3.3                        | 20.53      | -          |
| 1972     | 11            | 26.56             | -                  | -                  | 4.25               | 22.31                            | 6,432           | 3.5                        | 22.31      | -          |
| 1973     | 12            | 24.49             | -                  | -                  | 3.92               | 20.57                            | 6,629           | 3.1                        | 20.57      | -          |
| 1974     | 13            | 33.33             | -                  | -                  | 5.33               | 28.00                            | 6,829           | 4.1                        | 28.00      | -          |
| 1975     | 14            | 37.24             | -                  | -                  | 5.96               | 31.28                            | 7,035           | 4.4                        | 31.28      | -          |
| 1976     | 15            | 42.78             | -                  | -                  | 6.84               | 35.94                            | 7,243           | 5.0                        | 35.94      | -          |
| 1977     | 16            | 33.87             | -                  | -                  | 5.42               | 28.45                            | 7,455           | 3.8                        | 28.45      | -          |
| 1978     | 17            | 36.74             | -                  | -                  | 5.88               | 30.86                            | 7,671           | 4.0                        | 30.86      | -          |
| 1979     | 18            | 32.30             | -                  | -                  | 5.17               | 27.13                            | 7,893           | 3.4                        | 27.13      | -          |
| 1980     | 19            | 8.15              | -                  | -                  | 1.30               | 6.85                             | 8,123           | 0.8                        | 6.85       | -          |
| 1981     | 20            | 42.31             | -                  | -                  | 6.77               | 35.54                            | 8,361           | 4.3                        | 35.54      | -          |
| 1982     | 21            | 36.78             | -                  | -                  | 5.88               | 30.90                            | 8,606           | 3.6                        | 30.90      | -          |
| 1983     | 22            | 36.00             | -                  | -                  | 5.76               | 30.24                            | 8,857           | 3.4                        | 30.24      | -          |
| 1984     | 23            | 63.98             | -                  | -                  | 10.24              | 53.74                            | 9,115           | 5.9                        | 53.74      | -          |
| 1985     | 24            | 64.68             | -                  | -                  | 10.35              | 54.33                            | 9,378           | 5.8                        | 54.33      | -          |
| 1986     | 25            | 67.51             | -                  | -                  | 10.80              | 56.71                            | 9,647           | 5.9                        | 56.71      | -          |
| 1987     |               | *                 | *                  | *                  | *                  | *                                | 9,923           | *                          | *          | *          |
| Forecast |               | *8                |                    |                    |                    |                                  |                 | *9                         |            |            |
| 2000     | 39            | 30.60             | -                  | -                  | 4.90               | 25.70                            | 13,939          | 2.6                        | 36.20      | -10.50     |
| 2005     | 44            | 29.30             | -                  | -                  | 4.69               | 24.61                            | 15,509          | 2.4                        | 37.20      | -12.59     |
| 2010     | 49            | 28.10             | -                  | -                  | 4.50               | 23.60                            | 17,099          | 2.3                        | 39.30      | -15.70     |
| 2015     | 54            | 27.10             | -                  | -                  | 4.34               | 22.76                            | 18,689          | 2.2                        | 41.10      | -18.34     |
| 2020     | 59            | 26.20             | -                  | -                  | 4.19               | 22.01                            | 20,279          | 2.1                        | 42.60      | -20.59     |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: 16% (4) = ((1)+(2)-(3)) x 16%

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a + b * \text{LOG}x$   $a = 69,204$   $b = -24,290031$   $r = 0,42$

\*5 1962-1986: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1962-1986: (8) = (5) \*9  $y = a * x^b$   $a = 15,060$   $b = -0,481568$   $r = 0,65$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (19/46)

| Zapallo    |               |                               |                                |                                |                                |                                              |                           |                                    |                           |                           |
|------------|---------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|---------------------------|---------------------------|
| Años       | Años en Orden | Oferta Interna                |                                |                                |                                |                                              | Demanda Interna           |                                    |                           | *7<br>Balance<br>(1.000t) |
|            |               | Produc-<br>ción*1<br>(1.000t) | Importa-<br>ción*2<br>(1.000t) | Exporta-<br>ción*2<br>(1.000t) | Desper-<br>dicio*3<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*4<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*5<br>(kg) | *6<br>Demanda<br>(1.000t) |                           |
|            |               | (1)                           | (2)                            | (3)                            | (4)                            | (5)                                          | (6)                       | (7)                                | (8)                       |                           |
| Actual     |               | (1)                           | (2)                            | (3)                            | (4)                            | (5)                                          | (6)                       | (7)                                | (8)                       | (9)                       |
| 1976       |               | *                             | *                              | *                              | *                              | *                                            | 7,243                     | *                                  | *                         | *                         |
| 1977       |               | *                             | *                              | *                              | *                              | *                                            | 7,455                     | *                                  | *                         | *                         |
| 1978       |               | *                             | *                              | *                              | *                              | *                                            | 7,671                     | *                                  | *                         | *                         |
| 1979       |               | *                             | *                              | *                              | *                              | *                                            | 7,893                     | *                                  | *                         | *                         |
| 1980       |               | *                             | *                              | *                              | *                              | *                                            | 8,123                     | *                                  | *                         | *                         |
| 1981       |               | *                             | *                              | *                              | *                              | *                                            | 8,361                     | *                                  | *                         | *                         |
| 1982       | 1             | 5.42                          | -                              | -                              | 0.81                           | 4.61                                         | 8,606                     | 0.5                                | 4.61                      | -                         |
| 1983       | 2             | 30.64                         | -                              | -                              | 4.60                           | 26.04                                        | 8,857                     | 2.9                                | 26.04                     | -                         |
| 1984       | 3             | 27.32                         | -                              | -                              | 4.10                           | 23.22                                        | 9,115                     | 2.5                                | 23.22                     | -                         |
| 1985       | 4             | 23.71                         | -                              | -                              | 3.56                           | 20.15                                        | 9,378                     | 2.1                                | 20.15                     | -                         |
| 1986       |               | *                             | *                              | *                              | *                              | *                                            | 9,647                     | *                                  | *                         | *                         |
| 1987       |               | *                             | *                              | *                              | *                              | *                                            | 9,923                     | *                                  | *                         | *                         |
| Pronostico |               | *8                            |                                |                                |                                |                                              |                           | *8                                 |                           |                           |
| 2000       | 19            | 21.80                         | -                              | -                              | 3.30                           | 18.50                                        | 13,939                    | 2.00                               | 27.90                     | -9.40                     |
| 2005       | 24            | 21.80                         | -                              | -                              | 3.30                           | 18.50                                        | 15,509                    | 2.00                               | 31.00                     | -12.50                    |
| 2010       | 29            | 21.80                         | -                              | -                              | 3.30                           | 18.50                                        | 17,099                    | 2.00                               | 34.20                     | -15.70                    |
| 2015       | 34            | 21.80                         | -                              | -                              | 3.30                           | 18.50                                        | 18,689                    | 2.00                               | 37.40                     | -18.90                    |
| 2020       | 39            | 21.80                         | -                              | -                              | 3.30                           | 18.50                                        | 20,279                    | 2.00                               | 40.60                     | -22.10                    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de La Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: 15%      (4) = {(1)+(2)-(3)} x 15%

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4)

\*5 1982-1985:  $(7) = (5)/(6)$

\*6 1982-1985: (8) = (5)

2000-2020: (8) = (6) x (7)

\*7 (9) = (5) - (8)

\*8 Se aplicaron cifras promedios para el periodo 1982 - 1985, para la producción y el consumo per capita futuro, por razón de tendencia estacionaria.

$$y = a * x^b \quad a = 7,5738 \quad b = 1,097253 \quad x = \text{year in order} \quad y = \text{Production}$$

$r = 0,81$  (Nivel de confianza 5%,  $df. = 2$ :  $r > 0,950$  No correlación)

$y = a * x^b$      $a = 0,7097$      $b = 1,070364$      $x$  = Años en orden     $y$  = Consumo per capita  
 $r = 0,79$  (Nivel de confianza 5%, df. = 2:  $r > 0,950$  No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (20/46)

| Aguacate   |               |                |               |               |               |                          |                 |                      |            |          |
|------------|---------------|----------------|---------------|---------------|---------------|--------------------------|-----------------|----------------------|------------|----------|
|            |               | Oferta Interna |               |               |               |                          | Demanda Interna |                      |            | *7       |
| Años       | Años en Orden | Producción*1   | Importación*2 | Exportación*2 | Desperdicio*3 | Disponibilidad Consumo*4 | Población       | Consumo per Capita*5 | *6 Demanda | Balance  |
|            |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)      | (1.000t)                 | (1.000)         | (kg)                 | (1.000t)   | (1.000t) |
| Actual     |               | (1)            | (2)           | (3)           | (4)           | (5)                      | (6)             | (7)                  | (8)        | (9)      |
| 1962       | 1             | 25.92          | -             | -             | 2.59          | 23.33                    | 4,696           | 5.0                  | 23.33      | -        |
| 1963       | 2             | 29.17          | -             | -             | 2.92          | 26.25                    | 4,846           | 5.4                  | 26.25      | -        |
| 1964       | 3             | 28.78          | -             | -             | 2.88          | 25.90                    | 5,001           | 5.2                  | 25.90      | -        |
| 1965       | 4             | 23.98          | -             | -             | 2.40          | 21.58                    | 5,162           | 4.2                  | 21.58      | -        |
| 1966       | 5             | 23.00          | -             | -             | 2.30          | 20.70                    | 5,330           | 3.9                  | 20.70      | -        |
| 1967       | 6             | 27.40          | -             | -             | 2.74          | 24.66                    | 5,503           | 4.5                  | 24.66      | -        |
| 1968       | 7             | 30.79          | -             | -             | 3.08          | 27.71                    | 5,682           | 4.9                  | 27.71      | -        |
| 1969       | 8             | 23.77          | -             | -             | 2.38          | 21.39                    | 5,865           | 3.6                  | 21.39      | -        |
| 1970       | 9             | 23.36          | -             | -             | 2.34          | 21.02                    | 6,051           | 3.5                  | 21.02      | -        |
| 1971       | 10            | 11.67          | -             | -             | 1.17          | 10.50                    | 6,240           | 1.7                  | 10.50      | -        |
| 1972       | 11            | 27.20          | -             | -             | 2.72          | 24.48                    | 6,432           | 3.8                  | 24.48      | -        |
| 1973       | 12            | 24.32          | -             | -             | 2.43          | 21.89                    | 6,629           | 3.3                  | 21.89      | -        |
| 1974       | 13            | 29.33          | -             | -             | 2.93          | 26.40                    | 6,829           | 3.9                  | 26.40      | -        |
| 1975       | 14            | 31.94          | -             | -             | 3.19          | 28.75                    | 7,035           | 4.1                  | 28.75      | -        |
| 1976       | 15            | 39.21          | -             | -             | 3.92          | 35.29                    | 7,243           | 4.9                  | 35.29      | -        |
| 1977       | 16            | 40.47          | -             | -             | 4.05          | 36.42                    | 7,455           | 4.9                  | 36.42      | -        |
| 1978       | 17            | 31.35          | -             | -             | 3.14          | 28.21                    | 7,671           | 3.7                  | 28.21      | -        |
| 1979       | 18            | 28.99          | -             | -             | 2.90          | 26.09                    | 7,893           | 3.3                  | 26.09      | -        |
| 1980       | 19            | 29.06          | -             | -             | 2.91          | 26.15                    | 8,123           | 3.2                  | 26.15      | -        |
| 1981       | 20            | 30.62          | -             | -             | 3.06          | 27.56                    | 8,361           | 3.3                  | 27.56      | -        |
| 1982       | 21            | 31.08          | -             | -             | 3.11          | 27.97                    | 8,606           | 3.3                  | 27.97      | -        |
| 1983       | 22            | 29.56          | -             | -             | 2.96          | 26.60                    | 8,857           | 3.0                  | 26.60      | -        |
| 1984       | 23            | 32.58          | -             | -             | 3.26          | 29.32                    | 9,115           | 3.2                  | 29.32      | -        |
| 1985       | 24            | 28.38          | -             | -             | 2.84          | 25.54                    | 9,378           | 2.7                  | 25.54      | -        |
| 1986       | 25            | 20.29          | -             | -             | 2.03          | 18.26                    | 9,647           | 1.9                  | 18.26      | -        |
| 1987       |               | *              | *             | *             | *             | *                        | 9,923           | *                    | *          | *        |
| Pronostico |               | *8             | -             | -             |               |                          |                 | *9                   |            |          |
| 2000       | 39            | 28.10          | -             | -             | 2.80          | 25.30                    | 13,939          | 2.8                  | 39.00      | -13.70   |
| 2005       | 44            | 28.10          | -             | -             | 2.80          | 25.30                    | 15,509          | 2.7                  | 41.90      | -16.60   |
| 2010       | 49            | 28.10          | -             | -             | 2.80          | 25.30                    | 17,099          | 2.6                  | 44.50      | -19.20   |
| 2015       | 54            | 28.10          | -             | -             | 2.80          | 25.30                    | 18,689          | 2.5                  | 46.70      | -21.40   |
| 2020       | 59            | 28.10          | -             | -             | 2.80          | 25.30                    | 20,279          | 2.5                  | 50.70      | -25.40   |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*5 1962-1986:  $\langle 7 \rangle = \langle 5 \rangle / \langle 6 \rangle$

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

$$*7 \quad (9) = (5) - (8)$$

\*8. Se aplicaron cifras promedio para el periodo 1962 a 1986 para la producción futura por razones de tendencia estacionaria.

$$y = a + bx \quad a = 25,440 \quad b = 0,204 \quad x = \text{Años en orden} \quad y = \text{producción}$$

$r = 0,26$  (Nivel de confianza 5%,  $df. = 23$ :  $r > 0.391$ , No correlación)

\*9  $y = a + b * \text{LOG}x$      $a = 5,49$      $b = -1,710349$      $x = \text{Años en orden}$      $y = \text{Consumo per capita}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (21/46)

| Banano     |               |                |               |               |                          |                          |                 |                      |            |          |
|------------|---------------|----------------|---------------|---------------|--------------------------|--------------------------|-----------------|----------------------|------------|----------|
|            |               | Oferta Interna |               |               |                          |                          | Demanda Interna |                      |            | *7       |
| Años       | Años en Orden | Producción*1   | Importación*2 | Exportación*2 | Alimento y Desperdicio*3 | Disponibilidad Consumo*4 | Población       | Consumo per Capita*5 | *6 Demanda | Balance  |
|            |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)                 | (1.000t)                 | (1.000)         | (kg)                 | (1.000t)   | (1.000t) |
| Actual     |               | (1)            | (2)           | (3)           | (4)                      | (5)                      | (6)             | (7)                  | (8)        | (9)      |
| 1962       |               | 2,308          | *             | *             | *                        | *                        | 4,696           | *                    | *          | -        |
| 1963       |               | 2,296          | *             | *             | *                        | *                        | 4,846           | *                    | *          | -        |
| 1964       |               | 3,037          | *             | *             | *                        | *                        | 5,001           | *                    | *          | -        |
| 1965       |               | 3,067          | *             | *             | *                        | *                        | 5,162           | *                    | *          | -        |
| 1966       |               | 2,744          | *             | *             | *                        | *                        | 5,330           | *                    | *          | -        |
| 1967       |               | 2,937          | *             | *             | *                        | *                        | 5,503           | *                    | *          | -        |
| 1968       |               | 3,920          | *             | *             | *                        | *                        | 5,682           | *                    | *          | -        |
| 1969       | 1             | 3,870          | -             | 1,190         | 2,224                    | 456                      | 5,865           | 77.7                 | 456        | -        |
| 1970       | 2             | 3,688          | -             | 1,364         | 1,929                    | 395                      | 6,051           | 65.3                 | 395        | -        |
| 1971       | 3             | 3,512          | -             | 1,351         | 1,794                    | 367                      | 6,240           | 58.8                 | 367        | -        |
| 1972       | 4             | 3,296          | -             | 1,407         | 1,568                    | 321                      | 6,432           | 49.9                 | 321        | -        |
| 1973       | 5             | 3,203          | -             | 1,391         | 1,504                    | 308                      | 6,629           | 46.5                 | 308        | -        |
| 1974       | 6             | 3,397          | -             | 1,357         | 1,693                    | 347                      | 6,829           | 50.8                 | 347        | -        |
| 1975       | 7             | 2,569          | -             | 1,353         | 1,009                    | 207                      | 7,035           | 29.4                 | 207        | -        |
| 1976       | 8             | 2,788          | -             | 1,231         | 1,292                    | 265                      | 7,243           | 36.6                 | 265        | -        |
| 1977       | 9             | 2,451          | -             | 1,213         | 1,028                    | 210                      | 7,455           | 28.2                 | 210        | -        |
| 1978       | 10            | 2,152          | -             | 1,224         | 770                      | 158                      | 7,671           | 20.6                 | 158        | -        |
| 1979       | 11            | 2,032          | -             | 1,386         | 536                      | 110                      | 7,893           | 13.9                 | 110        | -        |
| 1980       | 12            | 2,269          | -             | 1,291         | 812                      | 166                      | 8,123           | 20.4                 | 166        | -        |
| 1981       | 13            | 2,010          | -             | 1,230         | 647                      | 133                      | 8,361           | 15.9                 | 133        | -        |
| 1982       | 14            | 1,999          | -             | 1,261         | 613                      | 125                      | 8,606           | 14.5                 | 125        | -        |
| 1983       | 15            | 1,642          | -             | 910           | 608                      | 124                      | 8,857           | 14.0                 | 124        | -        |
| 1984       | 16            | 1,678          | -             | 907           | 640                      | 131                      | 9,115           | 14.4                 | 131        | -        |
| 1985       | 17            | 1,970          | -             | 1,075         | 743                      | 152                      | 9,378           | 16.2                 | 152        | -        |
| 1986       | 18            | 2,316          | -             | 1,400         | 760                      | 156                      | 9,647           | 16.2                 | 156        | -        |
| 1987       |               | *              | *             | *             | *                        | *                        | 9,923           | *                    | *          | *        |
| Pronostico |               | *8             | -             | *10           |                          |                          |                 | *9                   |            |          |
| 2000       | 32            | 1,410          | -             | 1,000         | 340                      | 70                       | 13,939          | 9.9                  | 138        | -68      |
| 2005       | 37            | 1,290          | -             | 1,000         | 240                      | 50                       | 15,509          | 9.0                  | 140        | -90      |
| 2010       | 42            | 1,180          | -             | 1,000         | 150                      | 30                       | 17,099          | 8.2                  | 140        | -110     |
| 2015       | 47            | 1,090          | -             | 1,000         | 70                       | 20                       | 18,689          | 7.6                  | 142        | -122     |
| 2020       | 52            | 1,010          | -             | 1,000         | 10                       | 0                        | 20,279          | 7.1                  | 144        | -144     |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Áreas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Alimento y desperdicio:  $83\% (4) = \{(1)+(2)-(3)\} \times 83\%$

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4)      \*8  $y = a + b * \text{LOG}x$        $a = 4273,6$        $b = -1903,16$        $r = 0,92$

\*5 1969-1986:  $(7) = (5)/(6)$   $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1969-1986: (8) = (5)      \*9  $y = a * x^b$       a = 113,42      b = -0,702452      r = 0,93

2000-2020:  $(8) = (6) \times (7)$   $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

\*7 (9) = (5) - (8)

\*10 Se asume que el volumen de exportación conservaría el nivel del periodo 1984 to 1986.

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (22/46)

| Límon      |               |                          |                           |                           |                           |                                      |                      |                              |                           |                     |
|------------|---------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------------------------------|----------------------|------------------------------|---------------------------|---------------------|
|            |               | Oferta Interna           |                           |                           |                           |                                      | Demanda Interna      |                              |                           | *7                  |
| Años       | Años en Orden | Producción*1<br>(1.000t) | Importación*2<br>(1.000t) | Exportación*2<br>(1.000t) | Desperdicio*3<br>(1.000t) | Disponibilidad Consumo*4<br>(1.000t) | Población<br>(1.000) | Consumo per Capita*5<br>(kg) | *6<br>Demanda<br>(1.000t) | Balance<br>(1.000t) |
|            |               | (1)                      | (2)                       | (3)                       | (4)                       | (5)                                  | (6)                  | (7)                          | (8)                       | (9)                 |
| Actual     |               |                          |                           |                           |                           |                                      |                      |                              |                           |                     |
| 1962       |               | 26.25                    | *                         | *                         | 3.15                      | *                                    | 4,696                | *                            | *                         | *                   |
| 1963       |               | 19.59                    | *                         | *                         | 2.35                      | *                                    | 4,846                | *                            | *                         | *                   |
| 1964       |               | 18.36                    | *                         | *                         | 2.20                      | *                                    | 5,001                | *                            | *                         | *                   |
| 1965       |               | 24.06                    | *                         | *                         | 2.89                      | *                                    | 5,162                | *                            | *                         | *                   |
| 1966       |               | 24.44                    | *                         | *                         | 2.93                      | *                                    | 5,330                | *                            | *                         | *                   |
| 1967       |               | 22.70                    | *                         | *                         | 2.72                      | *                                    | 5,503                | *                            | *                         | *                   |
| 1968       |               | 19.79                    | *                         | *                         | 2.37                      | *                                    | 5,682                | *                            | *                         | *                   |
| 1969       | 1             | 15.32                    | -                         | -                         | 1.84                      | 13.48                                | 5,865                | 2.3                          | 13.48                     | -                   |
| 1970       | 2             | 15.43                    | -                         | -                         | 1.85                      | 13.58                                | 6,051                | 2.2                          | 13.58                     | -                   |
| 1971       | 3             | 13.23                    | -                         | -                         | 1.59                      | 11.64                                | 6,240                | 1.9                          | 11.64                     | -                   |
| 1972       | 4             | 7.85                     | -                         | -                         | 0.94                      | 6.91                                 | 6,432                | 1.1                          | 6.91                      | -                   |
| 1973       | 5             | 8.05                     | -                         | -                         | 0.97                      | 7.08                                 | 6,629                | 1.1                          | 7.08                      | -                   |
| 1974       | 6             | 28.44                    | -                         | -                         | 3.41                      | 25.03                                | 6,829                | 3.7                          | 25.03                     | -                   |
| 1975       | 7             | 37.43                    | -                         | -                         | 4.49                      | 32.94                                | 7,035                | 4.7                          | 32.94                     | -                   |
| 1976       | 8             | 21.11                    | -                         | -                         | 2.53                      | 18.58                                | 7,243                | 2.6                          | 18.58                     | -                   |
| 1977       | 9             | 15.52                    | -                         | -                         | 1.86                      | 13.66                                | 7,455                | 1.8                          | 13.66                     | -                   |
| 1978       | 10            | 15.81                    | -                         | -                         | 1.90                      | 13.91                                | 7,671                | 1.8                          | 13.91                     | -                   |
| 1979       | 11            | 15.70                    | -                         | -                         | 1.88                      | 13.82                                | 7,893                | 1.8                          | 13.82                     | -                   |
| 1980       | 12            | 17.79                    | -                         | 0.28                      | 2.10                      | 15.41                                | 8,123                | 1.9                          | 15.41                     | -                   |
| 1981       | 13            | 16.26                    | -                         | 0.36                      | 1.91                      | 13.99                                | 8,361                | 1.7                          | 13.99                     | -                   |
| 1982       | 14            | 15.81                    | -                         | 0.14                      | 1.88                      | 13.79                                | 8,606                | 1.6                          | 13.79                     | -                   |
| 1983       | 15            | 14.14                    | -                         | 0.04                      | 1.69                      | 12.41                                | 8,857                | 1.4                          | 12.41                     | -                   |
| 1984       | 16            | 16.86                    | -                         | 0.06                      | 2.02                      | 14.78                                | 9,115                | 1.6                          | 14.78                     | -                   |
| 1985       | 17            | 22.02                    | -                         | 0.18                      | 2.62                      | 19.22                                | 9,378                | 2.0                          | 19.22                     | -                   |
| 1986       | 18            | 15.09                    | -                         | -                         | 1.81                      | 13.28                                | 9,647                | 1.4                          | 13.28                     | -                   |
| 1987       |               | 12.16                    | *                         | *                         | *                         | *                                    | 9,923                | *                            | *                         | *                   |
| Pronóstico |               | *8                       |                           |                           |                           |                                      |                      | *8                           |                           |                     |
| 2000       | 32            | 17.3                     | -                         | -                         | 2.10                      | 15.20                                | 13,939               | 2.0                          | 27.90                     | -12.70              |
| 2005       | 37            | 17.3                     | -                         | -                         | 2.10                      | 15.20                                | 15,509               | 2.0                          | 31.00                     | -15.80              |
| 2010       | 42            | 17.3                     | -                         | -                         | 2.10                      | 15.20                                | 17,099               | 2.0                          | 34.20                     | -19.00              |
| 2015       | 47            | 17.3                     | -                         | -                         | 2.10                      | 15.20                                | 18,689               | 2.0                          | 37.40                     | -22.20              |
| 2020       | 52            | 17.3                     | -                         | -                         | 2.10                      | 15.20                                | 20,279               | 2.0                          | 40.60                     | -25.40              |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1969-1986:  $(7) = (5)/(6)$

\*3 Desperdicio: 12% (4) = {(1)+(2)-(3)} x 12%

\*6 1969-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

$$*4. (5) = (1) + (2) - (3) - (4)$$

\*7 (9) = (5) - (8)

\*8 Se aplicaron cifras promedios para el período 1962 - 1986, para la producción y el consumo futuros, por razones de tendencia estacionaria

Producción:  $y = a * x^b$   $a = 13,342$   $b = 0,097332$   $x = \text{Años en orde}$   $y = \text{producción}$   
 $r = 0,21$  (Significance level 5%, df. = 16:  $r > 0.468$ , No correlation)

Consumo per capita

$y = a + bx$      $a = 2,473$      $b = -0,046$      $x = \text{Años en orde}$      $y = \text{producción}$   
 $r = 0,28$  (Nivel de confianza 5%,  $df. = 16$ :  $r > 0.468$ , No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (23/46)

| Mandarina y Naranja |               |                   |                    |                    |                    |                                  |                 |                            |               |            |
|---------------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|------------|
| Años                | Años en Orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7 Balance |
|                     |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |            |
|                     |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |            |
| Actual              |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)        |
| 1962                | 1             | 148.80            | -                  | -                  | 14.88              | 133.92                           | 4,696           | 28.5                       | 133.92        | -          |
| 1963                | 2             | 144.30            | -                  | -                  | 14.43              | 129.87                           | 4,846           | 26.8                       | 129.87        | -          |
| 1964                | 3             | 138.37            | -                  | -                  | 13.84              | 124.53                           | 5,001           | 24.9                       | 124.53        | -          |
| 1965                | 4             | 178.15            | -                  | -                  | 17.82              | 160.33                           | 5,162           | 31.1                       | 160.33        | -          |
| 1966                | 5             | 175.98            | -                  | -                  | 17.60              | 158.38                           | 5,330           | 29.7                       | 158.38        | -          |
| 1967                | 6             | 191.85            | -                  | -                  | 19.19              | 172.66                           | 5,503           | 31.4                       | 172.66        | -          |
| 1968                | 7             | 156.74            | -                  | -                  | 15.67              | 141.07                           | 5,682           | 24.8                       | 141.07        | -          |
| 1969                | 8             | 165.93            | -                  | -                  | 16.59              | 149.34                           | 5,865           | 25.5                       | 149.34        | -          |
| 1970                | 9             | 164.00            | -                  | -                  | 16.40              | 147.60                           | 6,051           | 24.4                       | 147.60        | -          |
| 1971                | 10            | 182.56            | -                  | -                  | 18.26              | 164.30                           | 6,240           | 26.3                       | 164.30        | -          |
| 1972                | 11            | 163.06            | -                  | -                  | 16.31              | 146.75                           | 6,432           | 22.8                       | 146.75        | -          |
| 1973                | 12            | 173.05            | -                  | -                  | 17.31              | 155.74                           | 6,629           | 23.5                       | 155.74        | -          |
| 1974                | 13            | 256.84            | -                  | -                  | 25.68              | 231.16                           | 6,829           | 33.8                       | 231.16        | -          |
| 1975                | 14            | 302.72            | -                  | -                  | 30.27              | 272.45                           | 7,035           | 38.7                       | 272.45        | -          |
| 1976                | 15            | 353.77            | -                  | -                  | 35.38              | 318.39                           | 7,243           | 44.0                       | 318.39        | -          |
| 1977                | 16            | 574.87            | -                  | -                  | 57.49              | 517.38                           | 7,455           | 69.4                       | 517.38        | -          |
| 1978                | 17            | 525.90            | -                  | 0.21               | 52.57              | 473.12                           | 7,671           | 61.7                       | 473.12        | -          |
| 1979                | 18            | 532.09            | -                  | 0.43               | 53.17              | 478.49                           | 7,893           | 60.6                       | 478.49        | -          |
| 1980                | 19            | 564.34            | -                  | 0.03               | 56.43              | 507.88                           | 8,123           | 62.5                       | 507.88        | -          |
| 1981                | 20            | 560.17            | -                  | 0.36               | 55.98              | 503.83                           | 8,361           | 60.3                       | 503.83        | -          |
| 1982                | 21            | 534.02            | -                  | 0.04               | 53.40              | 480.58                           | 8,606           | 55.8                       | 480.58        | -          |
| 1983                | 22            | 384.25            | -                  | -                  | 38.43              | 345.82                           | 8,857           | 39.0                       | 345.82        | -          |
| 1984                | 23            | 303.04            | -                  | -                  | 30.30              | 272.74                           | 9,115           | 29.9                       | 272.74        | -          |
| 1985                | 24            | 265.03            | -                  | -                  | 26.50              | 238.53                           | 9,378           | 25.4                       | 238.53        | -          |
| 1986                |               | 84.05             | *                  | *                  | *                  | *                                | 9,647           | *                          | *             | *          |
| 1987                |               | 11.94             | *                  | *                  | *                  | *                                | 9,923           | *                          | *             | *          |
| Pronostico          |               | *8                |                    |                    |                    |                                  | *9              |                            |               |            |
| 2000                | 39            | 492.10            | -                  | -                  | 49.20              | 442.90                           | 13,939          | 47.6                       | 663.50        | -220.60    |
| 2005                | 44            | 520.30            | -                  | -                  | 52.00              | 468.30                           | 15,509          | 48.9                       | 758.40        | -290.10    |
| 2010                | 49            | 546.80            | -                  | -                  | 54.70              | 492.10                           | 17,099          | 50.1                       | 856.70        | -364.60    |
| 2015                | 54            | 571.90            | -                  | -                  | 57.20              | 514.70                           | 18,689          | 51.2                       | 956.90        | -442.20    |
| 2020                | 59            | 595.80            | -                  | -                  | 59.60              | 536.20                           | 20,279          | 52.2                       | 1,058.60      | -522.40    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: 10% (4) = ((1)+(2)-(3)) x 10%  
Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$   $a = 90,511$   $b = 0,462152$   $r = 0,74$

\*5 1962-1985: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{producción}$

\*6 1962-1985: (8) = (5) \*9  $y = a * x^b$   $a = 21,012$   $b = 0,223111$   $r = 0,50$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

\*7 (9) = (8) - (5)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (24/46)

| Mango    |               |                   |                    |                    |                    |                                  |                 |                            |               |               |
|----------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años     | Años en orden | Oferta Interna    |                    |                    |                    |                                  | Demanda Interna |                            |               | *7<br>Balance |
|          |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|          |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
| Actual   |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962     | 1             | 17.83             | -                  | -                  | 5.71               | 12.12                            | 4,696           | 2.6                        | 12.12         | -             |
| 1963     | 2             | 14.90             | -                  | -                  | 4.77               | 10.13                            | 4,846           | 2.1                        | 10.13         | -             |
| 1964     | 3             | 13.99             | -                  | -                  | 4.48               | 9.51                             | 5,001           | 1.9                        | 9.51          | -             |
| 1965     | 4             | 20.42             | -                  | -                  | 6.53               | 13.89                            | 5,162           | 2.7                        | 13.89         | -             |
| 1966     | 5             | 19.87             | -                  | -                  | 6.36               | 13.51                            | 5,330           | 2.5                        | 13.51         | -             |
| 1967     | 6             | 15.72             | -                  | -                  | 5.03               | 10.69                            | 5,503           | 1.9                        | 10.69         | -             |
| 1968     | 7             | 12.20             | -                  | -                  | 3.90               | 8.30                             | 5,682           | 1.5                        | 8.30          | -             |
| 1969     | 8             | 12.01             | -                  | -                  | 3.84               | 8.17                             | 5,865           | 1.4                        | 8.17          | -             |
| 1970     | 9             | 10.34             | -                  | -                  | 3.31               | 7.03                             | 6,051           | 1.2                        | 7.03          | -             |
| 1971     | 10            | 8.51              | -                  | -                  | 2.72               | 5.79                             | 6,240           | 0.9                        | 5.79          | -             |
| 1972     | 11            | 6.72              | -                  | -                  | 2.15               | 4.57                             | 6,432           | 0.7                        | 4.57          | -             |
| 1973     | 12            | 9.24              | -                  | -                  | 2.96               | 6.28                             | 6,629           | 0.9                        | 6.28          | -             |
| 1974     | 13            | 58.63             | -                  | -                  | 18.76              | 39.87                            | 6,829           | 5.8                        | 39.87         | -             |
| 1975     | 14            | 59.39             | -                  | -                  | 19.00              | 40.39                            | 7,035           | 5.7                        | 40.39         | -             |
| 1976     | 15            | 33.02             | -                  | -                  | 10.57              | 22.45                            | 7,243           | 3.1                        | 22.45         | -             |
| 1977     | 16            | 21.81             | -                  | -                  | 6.98               | 14.83                            | 7,455           | 2.0                        | 14.83         | -             |
| 1978     | 17            | 26.20             | -                  | -                  | 8.38               | 17.82                            | 7,671           | 2.3                        | 17.82         | -             |
| 1979     | 18            | 25.84             | -                  | -                  | 8.27               | 17.57                            | 7,893           | 2.2                        | 17.57         | -             |
| 1980     | 19            | 25.72             | -                  | -                  | 8.23               | 17.49                            | 8,123           | 2.2                        | 17.49         | -             |
| 1981     | 20            | 24.50             | -                  | -                  | 7.84               | 16.66                            | 8,361           | 2.0                        | 16.66         | -             |
| 1982     | 21            | 22.39             | -                  | -                  | 7.16               | 15.23                            | 8,606           | 1.8                        | 15.23         | -             |
| 1983     | 22            | 20.13             | -                  | -                  | 6.44               | 13.69                            | 8,857           | 1.5                        | 13.69         | -             |
| 1984     | 23            | 20.22             | -                  | -                  | 6.47               | 13.75                            | 9,115           | 1.5                        | 13.75         | -             |
| 1985     | 24            | 26.87             | -                  | -                  | 8.60               | 18.27                            | 9,378           | 1.9                        | 18.27         | -             |
| 1986     | 25            | 13.72             | -                  | -                  | 4.39               | 9.33                             | 9,647           | 1.0                        | 9.33          | -             |
| 1987     |               | *                 | *                  | *                  | *                  | *                                | 9,923           | *                          | *             | *             |
| Forecast |               | *8                |                    |                    |                    |                                  |                 | *8                         |               |               |
| 2000     | 39            | 21.60             | -                  | -                  | 6.90               | 14.70                            | 13,939          | 2.1                        | 29.30         | -14.60        |
| 2005     | 44            | 21.60             | -                  | -                  | 6.90               | 14.70                            | 15,509          | 2.1                        | 32.60         | -17.90        |
| 2010     | 49            | 21.60             | -                  | -                  | 6.90               | 14.70                            | 17,099          | 2.1                        | 35.90         | -21.20        |
| 2015     | 54            | 21.60             | -                  | -                  | 6.90               | 14.70                            | 18,689          | 2.1                        | 39.20         | -24.50        |
| 2020     | 59            | 21.60             | -                  | -                  | 6.90               | 14.70                            | 20,279          | 2.1                        | 42.60         | -27.90        |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Desperdicio: 32% (4) = ((1)+(2)-(3)) x 32%

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8 Se aplicaron cifras promedio para el periodo 1962 a 1986, para la producción y el consumo per capita futuro, por razones de tendencia estacionaria.

- Producción:  $y = a + EXP(x*b)$   $a = 13,784$   $b = 0,023731$   $x = \text{Años en orden}$   $y = \text{Producción}$   
 $r = 0,33$  (Nivel de confianza 5%, df. = 23:  $r > 0,391$  No correlación)

- Consumo per capita:  $y = a * x^b$   $a = 2,224$   $b = -0,073602$   $x = \text{Años en orden}$   $y = \text{Consumo}$   
 $r = 0,12$  (Nivel de confianza 5%, df. = 23:  $r > 0,391$  No correlación)



Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (25/46)

| Papaya     |               |                |               |               |               |                          |           |                              |          |
|------------|---------------|----------------|---------------|---------------|---------------|--------------------------|-----------|------------------------------|----------|
|            |               | Oferta Interna |               |               |               | Demanda Interna          |           |                              | *7       |
| Años       | Años en Orden | Producción*1   | Importación*2 | Exportación*2 | Desperdicio*3 | Disponibilidad Consumo*4 | Población | Consumo per Demanda Capita*5 | Balance  |
|            |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)      | (1.000t)                 | (1.000)   | (kg)                         | (1.000t) |
|            |               | (1)            | (2)           | (3)           | (4)           | (5)                      | (6)       | (7)                          | (8)      |
|            |               | (9)            |               |               |               |                          |           |                              |          |
| Actual     |               | *              | -             | -             | *             | *                        | 4,696     | *                            | *        |
| 1962       |               | *              | -             | -             | *             | *                        | 4,846     | *                            | *        |
| 1963       |               | *              | -             | -             | *             | *                        | 5,001     | *                            | *        |
| 1964       |               | *              | -             | -             | *             | *                        | 5,162     | *                            | *        |
| 1965       |               | *              | -             | -             | *             | *                        | 5,330     | *                            | *        |
| 1966       |               | *              | -             | -             | *             | *                        | 5,503     | *                            | *        |
| 1967       |               | *              | -             | -             | *             | *                        | 5,682     | *                            | *        |
| 1968       |               | *              | -             | -             | *             | *                        | 5,865     | *                            | *        |
| 1969       |               | *              | -             | -             | *             | *                        | 6,051     | *                            | *        |
| 1970       |               | *              | -             | -             | *             | *                        | 6,240     | *                            | *        |
| 1971       |               | *              | -             | -             | *             | *                        | 6,432     | *                            | *        |
| 1972       |               | *              | -             | -             | *             | *                        | 6,629     | *                            | *        |
| 1973       |               | *              | -             | -             | *             | *                        | 6,829     | *                            | *        |
| 1974       |               | *              | -             | -             | *             | *                        | 7,035     | *                            | *        |
| 1975       |               | *              | -             | -             | *             | *                        | 7,243     | 2.5                          | 18.08    |
| 1976       | 1             | 21.02          | -             | -             | 2.94          | 18.08                    | 7,455     | 2.5                          | 18.52    |
| 1977       | 2             | 21.53          | -             | -             | 3.01          | 18.52                    | 7,671     | 2.3                          | 17.82    |
| 1978       | 3             | 20.72          | -             | -             | 2.90          | 17.82                    | 7,893     | 1.9                          | 14.85    |
| 1979       | 4             | 17.27          | -             | -             | 2.42          | 14.85                    | 8,123     | 2.1                          | 17.43    |
| 1980       | 5             | 20.27          | -             | -             | 2.84          | 17.43                    | 8,361     | 2.5                          | 20.98    |
| 1981       | 6             | 24.39          | -             | -             | 3.41          | 20.98                    | 8,606     | 2.4                          | 21.07    |
| 1982       | 7             | 24.50          | -             | -             | 3.43          | 21.07                    | 8,857     | 2.2                          | 19.40    |
| 1983       | 8             | 22.56          | -             | -             | 3.16          | 19.40                    | 9,115     | 2.3                          | 21.25    |
| 1984       | 9             | 24.71          | -             | -             | 3.46          | 21.25                    | 9,378     | 2.8                          | 26.50    |
| 1985       | 10            | 30.81          | -             | -             | 4.31          | 26.50                    | 9,647     | 1.2                          | 11.95    |
| 1986       | 11            | 13.90          | -             | -             | 1.95          | 11.95                    | 9,923     | 1.3                          | 13.00    |
| 1987       | 12            | 15.12          | -             | -             | 2.12          | 13.00                    |           |                              |          |
| Pronostico |               | *8             |               |               |               |                          | *9        |                              |          |
| 2000       | 32            | 21.4           | -             | -             | 3.00          | 18.40                    | 13,939    | 3.2                          | 44.60    |
| 2005       | 37            | 21.4           | -             | -             | 3.00          | 18.40                    | 15,509    | 3.3                          | 51.20    |
| 2010       | 42            | 21.4           | -             | -             | 3.00          | 18.40                    | 17,099    | 3.4                          | 58.10    |
| 2015       | 47            | 21.4           | -             | -             | 3.00          | 18.40                    | 18,689    | 3.5                          | 65.40    |
| 2020       | 52            | 21.4           | -             | -             | 3.00          | 18.40                    | 20,279    | 3.5                          | 71.00    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1976-1987: (7) = (5)/(6)

\*3 Desperdicio: 14% (4) = {(1)+(2)-(3)} x 14%

\*6 1976-1987: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8 Se aplicaron cifras promedio para el periodo 1976 a 1986, para la producción en vista de tendencia estacionaria

$y = a + \text{EXP}(x \cdot b)$   $a = 22,242$   $b = -0,009329$   $x = \text{Años en orden}$   $y = \text{Producción}$

$r = 0,15$  (Nivel de confianza 5%,  $df = 10$ :  $r > 0,576$  No correlación)

\*9  $y = a + b \cdot \text{LOG}x$   $a = 0,6$   $b = 1,687233$   $r = 0,66$   $x = \text{Años en orden}$   $y = \text{Consumo}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (26/46)

| Piña       |               |                   |                    |                    |                    |                                  |                |                            |               |          |        |
|------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|----------------|----------------------------|---------------|----------|--------|
|            |               | Oferta Interna    |                    |                    |                    | Demanda Interna                  |                |                            | *7            |          |        |
| Años       | Años en Orden | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción | Consumo<br>per<br>Capita*5 | *6<br>Demanda | Balance  |        |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)        | (kg)                       | (1.000t)      | (1.000t) |        |
| Actual     |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)            | (7)                        | (8)           | (9)      |        |
|            | 1962          | 49.69             | *                  | *                  | *                  | *                                | 4,696          | *                          | *             | *        |        |
|            | 1963          | 48.72             | *                  | *                  | *                  | *                                | 4,846          | *                          | *             | *        |        |
|            | 1964          | 51.28             | *                  | *                  | *                  | *                                | 5,001          | *                          | *             | *        |        |
|            | 1965          | 54.93             | *                  | *                  | *                  | *                                | 5,162          | *                          | *             | *        |        |
|            | 1966          | 62.34             | *                  | *                  | *                  | *                                | 5,330          | *                          | *             | *        |        |
|            | 1967          | 55.29             | *                  | *                  | *                  | *                                | 5,503          | *                          | *             | *        |        |
|            | 1968          | 55.12             | *                  | *                  | *                  | *                                | 5,682          | *                          | *             | *        |        |
|            | 1969          | 57.29             | *                  | *                  | *                  | *                                | 5,865          | *                          | *             | *        |        |
|            | 1970          | 59.09             | *                  | *                  | *                  | *                                | 6,051          | *                          | *             | *        |        |
|            | 1971          | 55.96             | *                  | *                  | *                  | *                                | 6,240          | *                          | *             | *        |        |
|            | 1972          | 73.07             | *                  | *                  | *                  | *                                | 6,432          | *                          | *             | *        |        |
|            | 1973          | 44.60             | *                  | *                  | *                  | *                                | 6,629          | *                          | *             | *        |        |
|            | 1974          | 97.65             | *                  | *                  | *                  | *                                | 6,829          | *                          | *             | *        |        |
|            | 1975          | 233.46            | *                  | *                  | *                  | *                                | 7,035          | *                          | *             | *        |        |
|            | 1976          | 116.21            | *                  | *                  | *                  | *                                | 7,243          | *                          | *             | *        |        |
|            | 1977          | 118.12            | *                  | *                  | *                  | *                                | 7,455          | *                          | *             | *        |        |
|            | 1978          | 1                 | 125.36             | -                  | 0.78               | 47.34                            | 77.24          | 7,671                      | 10.1          | 77.24    | -      |
|            | 1979          | 2                 | 124.98             | -                  | 0.76               | 47.20                            | 77.02          | 7,893                      | 9.8           | 77.02    | -      |
|            | 1980          | 3                 | 135.02             | -                  | 0.64               | 51.06                            | 83.32          | 8,123                      | 10.3          | 83.32    | -      |
|            | 1981          | 4                 | 140.19             | -                  | 0.80               | 52.97                            | 86.42          | 8,361                      | 10.3          | 86.42    | -      |
|            | 1982          | 5                 | 136.75             | -                  | 0.52               | 51.77                            | 84.46          | 8,606                      | 9.8           | 84.46    | -      |
|            | 1983          | 6                 | 92.29              | -                  | 0.27               | 34.97                            | 57.05          | 8,857                      | 6.4           | 57.05    | -      |
|            | 1984          | 7                 | 65.07              | -                  | 0.45               | 24.56                            | 40.06          | 9,115                      | 4.4           | 40.06    | -      |
|            | 1985          | 8                 | 70.07              | -                  | 0.41               | 26.47                            | 43.19          | 9,378                      | 4.6           | 43.19    | -      |
|            | 1986          | 9                 | 33.29              | -                  | 0.90               | 12.31                            | 20.08          | 9,647                      | 2.1           | 20.08    | -      |
|            | 1987          |                   | 30.97              | *                  | *                  | *                                | *              | 9,923                      | *             | *        | *      |
| Pronostico |               | *8                |                    |                    |                    |                                  |                | *9                         |               |          |        |
|            | 2000          | 23                | 43.20              | -                  | 0.90               | 16.10                            | 26.20          | 13,939                     | 2.6           | 36.20    | -10.00 |
|            | 2005          | 28                | 39.50              | -                  | 0.90               | 14.67                            | 23.93          | 15,509                     | 2.3           | 35.70    | -11.77 |
|            | 2010          | 33                | 36.70              | -                  | 0.90               | 13.60                            | 22.20          | 17,099                     | 2.1           | 35.90    | -13.70 |
|            | 2015          | 38                | 34.40              | -                  | 0.90               | 12.73                            | 20.77          | 18,689                     | 1.9           | 35.50    | -14.73 |
|            | 2020          | 43                | 32.50              | -                  | 0.90               | 12.01                            | 19.59          | 20,279                     | 1.8           | 36.50    | -16.91 |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: 38% (4) = {(1)+(2)-(3)} x 38%

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$   $a = 178,91$   $b = -0,453158$   $r = 0,67$

\*5 1978-1986: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1978-1986: (8) = (5) \*9  $y = a * x^b$   $a = 14,959$   $b = -0,562451$   $r = 0,72$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (27/46)

| Plátano    |             |                   |                    |                    |                                  |                                  |                 |                            |               |               |
|------------|-------------|-------------------|--------------------|--------------------|----------------------------------|----------------------------------|-----------------|----------------------------|---------------|---------------|
| Años       | en<br>Orden | Oferta Interna    |                    |                    |                                  |                                  | Demanda Interna |                            |               | *7<br>Balance |
|            |             | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Alimento y<br>Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |               |
|            |             | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |               |
| Actual     |             | (1)               | (2)                | (3)                | (4)                              | (5)                              | (6)             | (7)                        | (8)           | (9)           |
| 1962       | 1           | 340               | -                  | -                  | 173                              | 167                              | 4,696           | 35.6                       | 167           | -             |
| 1963       | 2           | 365               | -                  | -                  | 186                              | 179                              | 4,846           | 36.9                       | 179           | -             |
| 1964       | 3           | 463               | -                  | -                  | 236                              | 227                              | 5,001           | 45.4                       | 227           | -             |
| 1965       | 4           | 598               | -                  | -                  | 305                              | 293                              | 5,162           | 56.8                       | 293           | -             |
| 1966       | 5           | 658               | -                  | -                  | 336                              | 322                              | 5,330           | 60.4                       | 322           | -             |
| 1967       | 6           | 402               | -                  | -                  | 205                              | 197                              | 5,503           | 35.8                       | 197           | -             |
| 1968       | 7           | 484               | -                  | -                  | 247                              | 237                              | 5,682           | 41.7                       | 237           | -             |
| 1969       | 8           | 445               | -                  | -                  | 227                              | 218                              | 5,865           | 37.2                       | 218           | -             |
| 1970       | 9           | 449               | -                  | -                  | 229                              | 220                              | 6,051           | 36.4                       | 220           | -             |
| 1971       | 10          | 440               | -                  | -                  | 224                              | 216                              | 6,240           | 34.6                       | 216           | -             |
| 1972       | 11          | 436               | -                  | -                  | 222                              | 214                              | 6,432           | 33.3                       | 214           | -             |
| 1973       | 12          | 447               | -                  | -                  | 228                              | 219                              | 6,629           | 33.0                       | 219           | -             |
| 1974       | 13          | 771               | -                  | -                  | 393                              | 378                              | 6,829           | 55.4                       | 378           | -             |
| 1975       | 14          | 821               | -                  | -                  | 419                              | 402                              | 7,035           | 57.1                       | 402           | -             |
| 1976       | 15          | 895               | -                  | -                  | 456                              | 439                              | 7,243           | 60.6                       | 439           | -             |
| 1977       | 16          | 770               | -                  | -                  | 393                              | 377                              | 7,455           | 50.6                       | 377           | -             |
| 1978       | 17          | 796               | -                  | -                  | 406                              | 390                              | 7,671           | 50.8                       | 390           | -             |
| 1979       | 18          | 673               | -                  | -                  | 343                              | 330                              | 7,893           | 41.8                       | 330           | -             |
| 1980       | 19          | 751               | -                  | -                  | 383                              | 368                              | 8,123           | 45.3                       | 368           | -             |
| 1981       | 20          | 761               | -                  | -                  | 388                              | 373                              | 8,361           | 44.6                       | 373           | -             |
| 1982       | 21          | 754               | -                  | -                  | 385                              | 369                              | 8,606           | 42.9                       | 369           | -             |
| 1983       | 22          | 687               | -                  | -                  | 350                              | 337                              | 8,857           | 38.0                       | 337           | -             |
| 1984       | 23          | 744               | -                  | -                  | 379                              | 365                              | 9,115           | 40.0                       | 365           | -             |
| 1985       | 24          | 946               | -                  | -                  | 482                              | 464                              | 9,378           | 49.5                       | 464           | -             |
| 1986       | 25          | 776               | -                  | -                  | 396                              | 380                              | 9,647           | 39.4                       | 380           | -             |
| 1987       | *           | *                 | *                  | *                  | *                                | *                                | 9,923           | *                          | *             | *             |
| Pronostico |             | *8                |                    |                    |                                  |                                  |                 | *9                         |               |               |
| 2000       | 39          | 870               | -                  | -                  | 440                              | 430                              | 13,939          | 44.0                       | 610           | -180          |
| 2005       | 44          | 900               | -                  | -                  | 460                              | 440                              | 15,509          | 43.0                       | 670           | -230          |
| 2010       | 49          | 920               | -                  | -                  | 470                              | 450                              | 17,099          | 41.0                       | 700           | -250          |
| 2015       | 54          | 950               | -                  | -                  | 480                              | 470                              | 18,689          | 41.0                       | 770           | -300          |
| 2020       | 59          | 970               | -                  | -                  | 490                              | 480                              | 20,279          | 41.0                       | 830           | -350          |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1962-1986: (7) = (5)/(6)

\*3 Alimento y desperdicio: 51% (4) = ((1)+(2)-(3)) x 51%

\*6 1962-1986: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8  $y = a * x^b$   $a = 311,50$   $b = 0,282564$   $r = 0,76$

$x$  = Años en orden  $y$  = Producción

\*9 Se aplicaron cifras promedio para el periodo 1962 a 1986 para consumo futuro en vista de tendencia estacionaria.

$y = a * x^b$   $a = 39,893$   $b = 0,03564$   $x$  = Años en orden  $y$  = Consumo per capita

$r = 0,15$  (Nivel de confianza 5%, df.= 23: 0,391 No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (28/46)

| Toronja    |                     |                   |                    |                    |                    |                                  |                |                            |               |               |
|------------|---------------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|----------------|----------------------------|---------------|---------------|
| Años       | Year<br>in<br>Order | Domestic Supply   |                    |                    |                    | Domestic Demand                  |                |                            | *7<br>Balance |               |
|            |                     | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción | Consumo<br>per<br>Capita*5 |               | *6<br>Demanda |
|            |                     | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)        | (kg)                       |               | (1.000t)      |
| Actual     |                     | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)            | (7)                        | (8)           | (9)           |
| 1972       |                     | *                 | *                  | *                  | *                  | *                                | 6,432          | *                          | *             | *             |
| 1973       |                     | *                 | *                  | *                  | *                  | *                                | 6,629          | *                          | *             | *             |
| 1974       | 1                   | 31.18             | -                  | -                  | 3.12               | 28.06                            | 6,829          | 4.1                        | 28.06         | -             |
| 1975       | 2                   | 38.93             | -                  | -                  | 3.89               | 35.04                            | 7,035          | 5.0                        | 35.04         | -             |
| 1976       | 3                   | 33.74             | -                  | -                  | 3.37               | 30.37                            | 7,243          | 4.2                        | 30.37         | -             |
| 1977       | 4                   | 97.87             | -                  | -                  | 9.79               | 88.08                            | 7,455          | 11.8                       | 88.08         | -             |
| 1978       | 5                   | 56.55             | -                  | -                  | 5.66               | 50.89                            | 7,671          | 6.6                        | 50.89         | -             |
| 1979       | 6                   | 56.73             | -                  | -                  | 5.67               | 51.06                            | 7,893          | 6.5                        | 51.06         | -             |
| 1980       | 7                   | 58.36             | -                  | -                  | 5.84               | 52.52                            | 8,123          | 6.5                        | 52.52         | -             |
| 1981       | 8                   | 59.20             | -                  | -                  | 5.92               | 53.28                            | 8,361          | 6.4                        | 53.28         | -             |
| 1982       | 9                   | 53.83             | -                  | -                  | 5.38               | 48.45                            | 8,606          | 5.6                        | 48.45         | -             |
| 1983       | 10                  | 41.19             | -                  | -                  | 4.12               | 37.07                            | 8,857          | 4.2                        | 37.07         | -             |
| 1984       | 11                  | 36.65             | -                  | -                  | 3.67               | 32.98                            | 9,115          | 3.6                        | 32.98         | -             |
| 1985       | 12                  | 29.63             | -                  | -                  | 2.96               | 26.67                            | 9,378          | 2.8                        | 26.67         | -             |
| 1986       |                     | 13.34             | *                  | *                  | *                  | *                                | 9,647          | *                          | *             | -             |
| 1987       |                     | 12.75             | *                  | *                  | *                  | *                                | 9,923          | *                          | *             | -             |
| Pronostico |                     | *8                |                    |                    |                    |                                  |                | *9                         |               |               |
| 2000       | 27                  | 49.00             | -                  | -                  | 5.00               | 44.00                            | 13,939         | 5.6                        | 78.00         | -34.00        |
| 2005       | 32                  | 49.00             | -                  | -                  | 5.00               | 44.00                            | 15,509         | 5.6                        | 87.00         | -43.00        |
| 2010       | 37                  | 49.00             | -                  | -                  | 5.00               | 44.00                            | 17,099         | 5.6                        | 96.00         | -52.00        |
| 2015       | 42                  | 49.00             | -                  | -                  | 5.00               | 44.00                            | 18,689         | 5.6                        | 105.00        | -61.00        |
| 2020       | 47                  | 49.00             | -                  | -                  | 5.00               | 44.00                            | 20,279         | 5.6                        | 114.00        | -70.00        |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 1974-1987: (7) = (5)/(6)

\*3 Desperdicio: 10% (4) = ((1)+(2)-(3)) x 10%

\*6 1974-1987: (8) = (5)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984. 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4)

\*7 (9) = (5) - (8)

\*8 Se aplicaron cifras promedio para el periodo 1974 a 1985, para la producción y el consumo per, capita, por razones de tendencia estacionaria

Producción:  $y = a * x^b$   $a = 41,459$   $b = 0,071170$

$r = 0,15$  (Nivel de confianza 5%, df. = 10:  $r > 0,576$  No correlación)

Consumo per capita:

$y = a + EXP(x*b)$   $a = 6,726$   $b = -0,03835$   $x = \text{Años en orden}$   $y = \text{Consumo}$

$r = 0,37$  (Nivel de confianza 5%, df. = 10:  $r > 0,576$  No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (29/46)

| Uva        |             |                   |                    |                    |                    |                                  |                |                            |               |
|------------|-------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|----------------|----------------------------|---------------|
| Años       | en<br>Orden | Oferta Interna    |                    |                    |                    | Demanda Interna                  |                |                            | *7<br>Balance |
|            |             | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción | Consumo<br>per<br>Capita*5 |               |
|            |             | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000t)                         | (1.000)        | (kg)<br>(1.000t)           |               |
| Actual     |             | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)            | (7)                        | (8)           |
| 1962       |             | 0.18              | *                  | *                  | *                  | *                                | 4,696          | *                          | *             |
| 1963       |             | 0.16              | *                  | *                  | *                  | *                                | 4,846          | *                          | *             |
| 1964       |             | 0.14              | *                  | *                  | *                  | *                                | 5,001          | *                          | *             |
| 1965       |             | 0.48              | *                  | *                  | *                  | *                                | 5,162          | *                          | *             |
| 1966       |             | 0.41              | *                  | *                  | *                  | *                                | 5,330          | *                          | *             |
| 1967       |             | 0.49              | *                  | *                  | *                  | *                                | 5,503          | *                          | *             |
| 1968       |             | 0.94              | *                  | *                  | *                  | *                                | 5,682          | *                          | *             |
| 1969       | 1           | 1.29              | 0.34               | -                  | 0.33               | 1.30                             | 5,865          | 0.22                       | 1.30          |
| 1970       | 2           | 1.20              | 0.49               | -                  | 0.34               | 1.35                             | 6,051          | 0.22                       | 1.35          |
| 1971       | 3           | 2.03              | 0.50               | -                  | 0.51               | 2.02                             | 6,240          | 0.32                       | 2.02          |
| 1972       | 4           | 1.15              | 0.54               | -                  | 0.34               | 1.35                             | 6,432          | 0.21                       | 1.35          |
| 1973       | 5           | 0.69              | 0.58               | -                  | 0.25               | 1.02                             | 6,629          | 0.15                       | 1.02          |
| 1974       | 6           | 0.79              | 0.44               | -                  | 0.25               | 0.98                             | 6,829          | 0.14                       | 0.98          |
| 1975       | 7           | 0.64              | 0.44               | -                  | 0.22               | 0.86                             | 7,035          | 0.12                       | 0.86          |
| 1976       | 8           | 0.57              | 0.22               | -                  | 0.16               | 0.63                             | 7,243          | 0.09                       | 0.63          |
| 1977       | 9           | 0.43              | 0.22               | -                  | 0.13               | 0.52                             | 7,455          | 0.07                       | 0.52          |
| 1978       | 10          | 0.40              | 1.51               | -                  | 0.38               | 1.53                             | 7,671          | 0.20                       | 1.53          |
| 1979       | 11          | 0.39              | 0.59               | -                  | 0.20               | 0.78                             | 7,893          | 0.10                       | 0.78          |
| 1980       | 12          | 0.42              | 0.53               | -                  | 0.19               | 0.76                             | 8,123          | 0.09                       | 0.76          |
| 1981       | 13          | 0.46              | 0.32               | -                  | 0.16               | 0.62                             | 8,361          | 0.07                       | 0.62          |
| 1982       | 14          | 0.48              | 0.18               | -                  | 0.13               | 0.53                             | 8,606          | 0.06                       | 0.53          |
| 1983       | 15          | 0.45              | -                  | -                  | 0.09               | 0.36                             | 8,857          | 0.04                       | 0.36          |
| 1984       | 16          | 0.44              | -                  | -                  | 0.09               | 0.35                             | 9,115          | 0.04                       | 0.35          |
| 1985       | 17          | 0.21              | -                  | -                  | 0.04               | 0.17                             | 9,378          | 0.02                       | 0.17          |
| 1986       | 18          | 0.20              | -                  | -                  | 0.04               | 0.16                             | 9,647          | 0.02                       | 0.16          |
| 1987       |             | 0.21              | *                  | *                  | *                  | *                                | 9,923          | *                          | *             |
| Pronostico |             | *8                |                    |                    |                    |                                  |                | *9                         |               |
| 2000       | 32          | 0.22              | -                  | -                  | 0.04               | 0.18                             | 13,939         | 0.03                       | 0.42          |
| 2005       | 37          | 0.20              | -                  | -                  | 0.04               | 0.16                             | 15,509         | 0.03                       | 0.47          |
| 2010       | 42          | 0.18              | -                  | -                  | 0.04               | 0.14                             | 17,099         | 0.02                       | 0.34          |
| 2015       | 47          | 0.17              | -                  | -                  | 0.03               | 0.14                             | 18,689         | 0.02                       | 0.37          |
| 2020       | 52          | 0.16              | -                  | -                  | 0.03               | 0.13                             | 20,279         | 0.02                       | 0.41          |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: assumed at 20% (4) = ((1)+(2)-(3)) x 20%

\*4 (5) = (1) + (2) - (3) - (4)

\*8  $y = a * x^b$   $a = 2,131$

$b = -0,654497$   $r = 0,87$

\*5 1969-1986: (7) = (5)/(6)

$x =$  Años en orden

$y =$  Producción

\*6 1969-1986: (8) = (5)

\*9  $y = a * x^b$   $a = 0,480$

$b = -0,814044$   $r = 0,80$

2000-2020: (8) = (6) x (7)

$x =$  Años en orden

$y =$  Consumo per capita

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (30/46)

| Ajonjolí   |               |                   |                    |                    |                                 |                                  |                 |                            |               |            |
|------------|---------------|-------------------|--------------------|--------------------|---------------------------------|----------------------------------|-----------------|----------------------------|---------------|------------|
| Años       | Años en Orden | Oferta Interna    |                    |                    |                                 |                                  | Demanda Interna |                            |               | *7 Balance |
|            |               | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Semilla<br>y Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción  | Consumo<br>per<br>Capita*5 | *6<br>Demanda |            |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)                        | (1.000t)                         | (1.000)         | (kg)                       | (1.000t)      |            |
| Actual     |               | (1)               | (2)                | (3)                | (4)                             | (5)                              | (6)             | (7)                        | (8)           | (9)        |
| 1962       | 1             | 0.58              | *                  | *                  | 0.03                            | 0.55                             | 4,696           | 0.117                      | 0.55          | -          |
| 1963       | 2             | 0.59              | *                  | *                  | 0.03                            | 0.56                             | 4,846           | 0.116                      | 0.56          | -          |
| 1964       | 3             | 0.92              | *                  | *                  | 0.05                            | 0.87                             | 5,001           | 0.174                      | 0.87          | -          |
| 1965       | 4             | 1.82              | *                  | *                  | 0.09                            | 1.73                             | 5,162           | 0.335                      | 1.73          | -          |
| 1966       | 5             | 2.25              | *                  | *                  | 0.11                            | 2.14                             | 5,330           | 0.402                      | 2.14          | -          |
| 1967       | 6             | 1.12              | *                  | *                  | 0.06                            | 1.06                             | 5,503           | 0.193                      | 1.06          | -          |
| 1968       | 7             | 1.97              | *                  | *                  | 0.10                            | 1.87                             | 5,682           | 0.329                      | 1.87          | -          |
| 1969       | 8             | 1.68              | -                  | -                  | 0.08                            | 1.60                             | 5,865           | 0.273                      | 1.60          | -          |
| 1970       | 9             | 2.26              | -                  | -                  | 0.11                            | 2.15                             | 6,051           | 0.355                      | 2.15          | -          |
| 1971       | 10            | 1.89              | -                  | -                  | 0.09                            | 1.80                             | 6,240           | 0.288                      | 1.80          | -          |
| 1972       | 11            | 2.09              | -                  | -                  | 0.10                            | 1.99                             | 6,432           | 0.309                      | 1.99          | -          |
| 1973       | 12            | 0.89              | -                  | -                  | 0.04                            | 0.85                             | 6,629           | 0.128                      | 0.85          | -          |
| 1974       | 13            | 1.67              | -                  | -                  | 0.08                            | 1.59                             | 6,829           | 0.233                      | 1.59          | -          |
| 1975       | 14            | 2.83              | -                  | -                  | 0.14                            | 2.69                             | 7,035           | 0.382                      | 2.69          | -          |
| 1976       | 15            | 2.12              | -                  | -                  | 0.11                            | 2.01                             | 7,243           | 0.278                      | 2.01          | -          |
| 1977       | 16            | 0.71              | -                  | -                  | 0.04                            | 0.67                             | 7,455           | 0.090                      | 0.67          | -          |
| 1978       | 17            | 0.45              | -                  | -                  | 0.02                            | 0.43                             | 7,671           | 0.056                      | 0.43          | -          |
| 1979       | 18            | 0.55              | -                  | -                  | 0.03                            | 0.52                             | 7,893           | 0.066                      | 0.52          | -          |
| 1980       | 19            | 0.53              | -                  | -                  | 0.03                            | 0.50                             | 8,123           | 0.062                      | 0.50          | -          |
| 1981       | 20            | 0.18              | -                  | -                  | 0.01                            | 0.17                             | 8,361           | 0.020                      | 0.17          | -          |
| 1982       | 21            | 0.14              | -                  | -                  | 0.01                            | 0.13                             | 8,606           | 0.015                      | 0.13          | -          |
| 1983       | 22            | 0.03              | -                  | -                  | 0.00                            | 0.03                             | 8,857           | 0.003                      | 0.03          | -          |
| 1984       | 23            | -                 | -                  | -                  | -                               | -                                | 9,115           | -                          | -             | -          |
| 1985       | 24            | 0.03              | -                  | -                  | 0.00                            | 0.03                             | 9,378           | 0.003                      | 0.03          | -          |
| 1986       | 25            | 0.12              | -                  | -                  | 0.01                            | 0.11                             | 9,647           | 0.011                      | 0.11          | -          |
| 1987       |               | 0.04              | *                  | *                  | *                               | *                                | 9,923           | *                          | *             | *          |
| Pronostico |               | *8                |                    |                    |                                 |                                  |                 | *9                         |               |            |
| 2000       | 39            | 0.30              | -                  | -                  | 0.02                            | 0.28                             | 13,939          | 0.03                       | 0.42          | -0.14      |
| 2005       | 44            | 0.30              | -                  | -                  | 0.02                            | 0.28                             | 15,509          | 0.02                       | 0.31          | -0.03      |
| 2010       | 49            | 0.20              | -                  | -                  | 0.01                            | 0.19                             | 17,099          | 0.02                       | 0.34          | -0.15      |
| 2015       | 54            | 0.20              | -                  | -                  | 0.01                            | 0.19                             | 18,689          | 0.02                       | 0.37          | -0.18      |
| 2020       | 59            | 0.20              | -                  | -                  | 0.01                            | 0.19                             | 20,279          | 0.02                       | 0.41          | -0.22      |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Semilla y desperdicio: se asume el (4) = ((1)+(2)-(3)) x 12%

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$  a = 3,0420

\*5 1962-1986: (7) = (5)/(6) x = Años en orden

\*6 1962-1986: (8) = (5) \*9  $y = a * x^b$  a = 0,7603

2000-2020: (8) = (6) x (7) x = Años en orden

\*7 (9) = (5) - (8)

b = -0,655159 r = 0,42

y = Producción

b = -0,907084 r = 0,51

y = Consumo per capita

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (31/46)

| Aceite de Coco |    |                                  |                           |                              |                           |                           |                                      |                      |                              |                       |                |
|----------------|----|----------------------------------|---------------------------|------------------------------|---------------------------|---------------------------|--------------------------------------|----------------------|------------------------------|-----------------------|----------------|
| Años en Orden  |    | Oferta Interna                   |                           |                              |                           |                           | Demanda Interna                      |                      |                              | Balance               |                |
|                |    | Producción de Coco*1<br>(1.000t) | Desperdicio*2<br>(1.000t) | Aceite de Coco*3<br>(1.000t) | Importación*4<br>(1.000t) | Exportación*4<br>(1.000t) | Disponibilidad Consumo*5<br>(1.000t) | Población<br>(1.000) | Consumo per Capita*6<br>(kg) | Demanda*7<br>(1.000t) | *9<br>(1.000t) |
| Actual         |    | (1)                              | (2)                       | (3)                          | (4)                       | (5)                       | (6)                                  | (7)                  | (8)                          |                       |                |
| 1971           |    | *                                | *                         | *                            | *                         | *                         | *                                    | 6,240                | *                            | *                     | *              |
| 1972           |    | *                                | *                         | *                            | *                         | *                         | *                                    | 6,432                | *                            | *                     | *              |
| 1973           |    | *                                | *                         | *                            | *                         | *                         | *                                    | 6,629                | *                            | *                     | *              |
| 1974           | 1  | 52.69                            | 0.53                      | 7.12                         | -                         | -                         | 7.12                                 | 6,829                | 1.0                          | 7.12                  | -              |
| 1975           | 2  | 28.31                            | 0.28                      | 3.83                         | 1.07                      | -                         | 4.90                                 | 7,035                | 0.7                          | 4.90                  | -              |
| 1976           | 3  | 29.95                            | 0.30                      | 4.05                         | 8.67                      | -                         | 12.72                                | 7,243                | 1.8                          | 12.72                 | -              |
| 1977           | 4  | 44.74                            | 0.45                      | 6.05                         | 1.37                      | -                         | 7.42                                 | 7,455                | 1.0                          | 7.42                  | -              |
| 1978           | 5  | 62.61                            | 0.63                      | 8.46                         | 1.71                      | -                         | 10.17                                | 7,671                | 1.3                          | 10.17                 | -              |
| 1979           | 6  | 62.66                            | 0.63                      | 8.47                         | 0.10                      | -                         | 8.57                                 | 7,893                | 1.1                          | 8.57                  | -              |
| 1980           | 7  | 78.48                            | 0.78                      | 10.61                        | 0.05                      | -                         | 10.66                                | 8,123                | 1.3                          | 10.66                 | -              |
| 1981           | 8  | 79.25                            | 0.79                      | 10.71                        | 0.54                      | -                         | 11.25                                | 8,361                | 1.3                          | 11.25                 | -              |
| 1982           | 9  | 71.39                            | 0.71                      | 9.65                         | 1.01                      | -                         | 10.66                                | 8,606                | 1.2                          | 10.66                 | -              |
| 1983           | 10 | 63.03                            | 0.63                      | 8.52                         | 0.50                      | -                         | 9.02                                 | 8,857                | 1.0                          | 9.02                  | -              |
| 1984           | 11 | 54.74                            | 0.55                      | 7.40                         | -                         | -                         | 7.40                                 | 9,115                | 0.8                          | 7.40                  | -              |
| 1985           | 12 | 38.33                            | 0.38                      | 5.18                         | 0.50                      | -                         | 5.68                                 | 9,378                | 0.6                          | 5.68                  | -              |
| 1986           | 13 | 31.93                            | 0.32                      | 4.31                         | 1.50                      | -                         | 5.81                                 | 9,647                | 0.6                          | 5.81                  | -              |
| 1987           |    | 34.64                            | 0.35                      | 4.68                         | *                         | *                         | *                                    | 9,923                | *                            | *                     | *              |
| Pronostico     |    | *9                               |                           |                              |                           |                           |                                      |                      | *9                           |                       |                |
| 2000           | 27 | 54.00                            | 0.50                      | 7.30                         | -                         | -                         | 7.30                                 | 13,939               | 1.1                          | 15.30                 | -8.00          |
| 2005           | 32 | 54.00                            | 0.50                      | 7.30                         | -                         | -                         | 7.30                                 | 15,509               | 1.1                          | 17.10                 | -9.80          |
| 2010           | 37 | 54.00                            | 0.50                      | 7.30                         | -                         | -                         | 7.30                                 | 17,099               | 1.1                          | 18.80                 | -11.50         |
| 2015           | 42 | 54.00                            | 0.50                      | 7.30                         | -                         | -                         | 7.30                                 | 18,689               | 1.1                          | 20.60                 | -13.30         |
| 2020           | 47 | 54.00                            | 0.50                      | 7.30                         | -                         | -                         | 7.30                                 | 20,279               | 1.1                          | 22.30                 | -15.00         |

\*1 Fuente: MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1987.

\*2 Desperdicio: 1% of (1) Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*3 (3) = ((1)-(2)) x 0.21 x 0.65

Factores de conversión - Copra: 21% de coco - Aceite de coco: 65% de copra

Fuente: FAO, Factores de Conversión técnica para productos agrícolas primarios, 1960.

\*4 Fuente: FAO, Anuario Comercial, 1974-1986. \*7 1974-1986: (9) = (6)

\*5 (6) = (3) + (4) - (5) 2000-2020: (9) = (7) x (8)

\*6 1974-1986: (8) = (6)/(7) \*8 (10) = (6) - (9)

\*9 Se aplicaron cifras promedio para el periodo 1974 a 1986, para producción y consumo per capita futuros, por razón de tendencia estacionaria

- Producción:  $y = a * x^b$   $a = 40,72$   $b = 0,126516$   $x = \text{Años en orden}$   $y = \text{Producción}$   
 $r = 0,27$  (Nivel de confianza 5%, df. = 11:  $r > 0,553$  No correlación)

- Consumo per capita:  $y = a + EXP(x*b)$   $a = 1,32$   $b = -0,038860$   $x = \text{Años en orden}$   $y = \text{Consumo}$   
 $r = 0,46$  (Nivel de confianza 5%, df. = 11:  $r > 0,553$  No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (32/46)

| Aceite de Palma |               |                                   |                           |                               |                           |                           |                                      |                      |                              |                       |                     |
|-----------------|---------------|-----------------------------------|---------------------------|-------------------------------|---------------------------|---------------------------|--------------------------------------|----------------------|------------------------------|-----------------------|---------------------|
|                 |               | Oferta Interna                    |                           |                               |                           |                           | Demanda Interna                      |                      |                              | *9                    |                     |
| Años            | Años en Orden | Producción de Palma*1<br>(1.000t) | Desperdicio*2<br>(1.000t) | Aceite de Palma*3<br>(1.000t) | Importación*4<br>(1.000t) | Exportación*4<br>(1.000t) | Disponibilidad Consumo*5<br>(1.000t) | Población<br>(1.000) | Consumo per Capita*6<br>(kg) | Demanda*7<br>(1.000t) | Balance<br>(1.000t) |
|                 |               | (1)                               | (2)                       | (3)                           | (4)                       | (5)                       | (6)                                  | (7)                  | (8)                          |                       |                     |
| Actual          |               | *                                 | *                         | *                             | *                         | *                         | *                                    |                      | *                            | *                     | *                   |
| 1968            |               | *                                 | *                         | *                             | *                         | *                         | *                                    | 5,682                | *                            | *                     | *                   |
| 1969            |               | *                                 | *                         | *                             | *                         | *                         | *                                    | 5,865                | *                            | *                     | *                   |
| 1970            |               | *                                 | *                         | *                             | *                         | *                         | *                                    | 6,051                | *                            | *                     | *                   |
| 1971            | 1             | 11.65                             | -                         | 2.41                          | 4.11                      | -                         | 6.52                                 | 6,240                | 1.0                          | 6.52                  | -                   |
| 1972            | 2             | 14.93                             | -                         | 3.09                          | 10.20                     | -                         | 13.29                                | 6,432                | 2.1                          | 13.29                 | -                   |
| 1973            | 3             | 13.16                             | -                         | 2.72                          | 4.71                      | -                         | 7.43                                 | 6,629                | 1.1                          | 7.43                  | -                   |
| 1974            | 4             | 17.01                             | -                         | 3.52                          | 5.72                      | -                         | 9.24                                 | 6,829                | 1.4                          | 9.24                  | -                   |
| 1975            | 5             | 14.19                             | -                         | 2.94                          | 1.02                      | -                         | 3.96                                 | 7,035                | 0.6                          | 3.96                  | -                   |
| 1976            | 6             | 18.65                             | -                         | 3.86                          | 10.40                     | -                         | 14.26                                | 7,243                | 2.0                          | 14.26                 | -                   |
| 1977            | 7             | 128.84                            | -                         | 26.67                         | 11.01                     | -                         | 37.68                                | 7,455                | 5.1                          | 37.68                 | -                   |
| 1978            | 8             | 128.84                            | -                         | 26.67                         | 2.50                      | -                         | 29.17                                | 7,671                | 3.8                          | 29.17                 | -                   |
| 1979            | 9             | 168.85                            | -                         | 34.95                         | 7.40                      | -                         | 42.35                                | 7,893                | 5.4                          | 42.35                 | -                   |
| 1980            | 10            | 251.24                            | -                         | 52.01                         | 0.90                      | -                         | 52.91                                | 8,123                | 6.5                          | 52.91                 | -                   |
| 1981            | 11            | 307.01                            | -                         | 63.55                         | 1.00                      | -                         | 64.55                                | 8,361                | 7.7                          | 64.55                 | -                   |
| 1982            | 12            | 317.21                            | -                         | 65.66                         | 2.50                      | -                         | 68.16                                | 8,606                | 7.9                          | 68.16                 | -                   |
| 1983            | 13            | 360.43                            | -                         | 74.61                         | 0.08                      | -                         | 74.69                                | 8,857                | 8.4                          | 74.69                 | -                   |
| 1984            | 14            | 376.24                            | -                         | 77.88                         | 0.02                      | -                         | 77.90                                | 9,115                | 8.6                          | 77.90                 | -                   |
| 1985            | 15            | 460.74                            | -                         | 95.37                         | -                         | 0.03                      | 95.34                                | 9,378                | 10.2                         | 95.34                 | -                   |
| 1986            | 16            | 657.74                            | -                         | 136.15                        | -                         | -                         | 136.15                               | 9,647                | 14.1                         | 136.15                | -                   |
| 1987            |               | *                                 | *                         | *                             | *                         | *                         | *                                    | 9,923                | *                            | *                     | *                   |
| Pronostico      |               |                                   |                           |                               |                           |                           |                                      |                      |                              |                       |                     |
| 2000            | 30            | 499.00                            | -                         | 103.00                        | -                         | -                         | 103.00                               | 13,939               | 11.00                        | 153.00                | -50.00              |
| 2005            | 35            | 529.00                            | -                         | 110.00                        | -                         | -                         | 110.00                               | 15,509               | 12.00                        | 186.00                | -76.00              |
| 2010            | 40            | 556.00                            | -                         | 115.00                        | -                         | -                         | 115.00                               | 17,099               | 13.00                        | 222.00                | -107.00             |
| 2015            | 45            | 580.00                            | -                         | 120.00                        | -                         | -                         | 120.00                               | 18,689               | 13.00                        | 243.00                | -123.00             |
| 2020            | 50            | 601.00                            | -                         | 124.00                        | -                         | -                         | 124.00                               | 20,279               | 14.00                        | 284.00                | -160.00             |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Desperdicio: Insignificante Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*3 Incluye aceite de palma y aceite de almendra (3) = ((1)-(2)) x 0.207

Las tasas de extrac. de las procesad. se asumieron as

Aceite de palma: 18.5% de aceite por racimo

Almendra: 45 % del racimo

Aceite de almendra: 4.9 % de la almendra

Ac.Palma+Ac.Almendr 20.7 % por racimo

(Fuente: C. W. S. Hartley, The Oil Palm, 1970.)

\*4 Fuente: FAO, Anuario Comercial, 1974-1986.

\*5 (6) = (3) + (4) - (5)

\*6 1971-1986: (8) = (6)/(7)

\*7 1971-1986: (9) = (6)

2000-2020: (9) = (7) x (8)

\*8 (10) = (6) - (9)

\*9  $y = a + b * \text{LOG}x$   $a = -179,18$   $b = 458,96$   $r = 0,80$

$x = \text{Años en orden}$   $y = \text{Producción}$

\*10  $y = a + b * \text{LOG}x$   $a = -2,47$   $b = 9,41$   $r = 0,82$

$x = \text{Años en orden}$   $y = \text{Consumo per capita}$



Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (33/46)

| Manf en Grano |               |                   |                                 |                                 |                                  |                    |                                  |                |                            |           |           |
|---------------|---------------|-------------------|---------------------------------|---------------------------------|----------------------------------|--------------------|----------------------------------|----------------|----------------------------|-----------|-----------|
|               |               | Oferta Interna    |                                 |                                 |                                  |                    | Demanda Interna                  |                |                            |           |           |
| Años          | Años en Orden | Produc-<br>ción*1 | Semilla<br>y Desper-<br>dicio*2 | Importación                     |                                  | Exporta-<br>ción*3 | Disponi-<br>bilidad<br>Consumo*5 | Pobla-<br>ción | Consumo<br>per<br>Capita*6 | Demand *7 | Balance*8 |
|               |               | (1.000t)          | (1.000t)                        | Aceite<br>de Maní*3<br>(1.000t) | Equivale<br>en Grano*4<br>(1.000 | (1.000t)           | (1.000t)                         | (1.000)        | (kg)                       | (1.000t)  | (1.000t)  |
|               |               | (1)               | (2)                             | (3)                             | (4)                              | (5)                | (6)                              | (7)            | (8)                        | (9)       | (10)      |
| Actual        |               |                   |                                 |                                 |                                  |                    |                                  |                |                            |           |           |
| 1962          |               | 5.26              | *                               | *                               | *                                | *                  | *                                | 4,696          | *                          | *         | *         |
| 1963          |               | 8.00              | *                               | *                               | *                                | *                  | *                                | 4,846          | *                          | *         | *         |
| 1964          |               | 9.74              | *                               | *                               | *                                | *                  | *                                | 5,001          | *                          | *         | *         |
| 1965          |               | 10.97             | *                               | *                               | *                                | *                  | *                                | 5,162          | *                          | *         | *         |
| 1966          |               | 11.82             | *                               | *                               | *                                | *                  | *                                | 5,330          | *                          | *         | *         |
| 1967          |               | 8.89              | *                               | *                               | *                                | *                  | *                                | 5,503          | *                          | *         | *         |
| 1968          |               | 6.13              | *                               | *                               | *                                | *                  | *                                | 5,682          | *                          | *         | *         |
| 1969          | 1             | 5.36              | 0.75                            | -                               | -                                | -                  | 4.61                             | 5,865          | 0.8                        | 4.61      | -         |
| 1970          | 2             | 5.27              | 0.74                            | -                               | -                                | -                  | 4.53                             | 6,051          | 0.7                        | 4.53      | -         |
| 1971          | 3             | 9.84              | 1.38                            | -                               | -                                | -                  | 8.46                             | 6,240          | 1.4                        | 8.46      | -         |
| 1972          | 4             | 10.79             | 1.51                            | -                               | -                                | -                  | 9.28                             | 6,432          | 1.4                        | 9.28      | -         |
| 1973          | 5             | 12.54             | 1.76                            | -                               | -                                | -                  | 10.78                            | 6,629          | 1.6                        | 10.78     | -         |
| 1974          | 6             | 17.18             | 2.41                            | -                               | -                                | -                  | 14.77                            | 6,829          | 2.2                        | 14.77     | -         |
| 1975          | 7             | 11.42             | 1.60                            | 0.05                            | 0.14                             | -                  | 9.96                             | 7,035          | 1.4                        | 9.96      | -         |
| 1976          | 8             | 7.92              | 1.11                            | 0.25                            | 0.71                             | -                  | 7.52                             | 7,243          | 1.0                        | 7.52      | -         |
| 1977          | 9             | 8.40              | 1.18                            | 0.20                            | 0.57                             | -                  | 7.79                             | 7,455          | 1.0                        | 7.79      | -         |
| 1978          | 10            | 9.26              | 1.30                            | 0.11                            | 0.31                             | -                  | 8.27                             | 7,671          | 1.1                        | 8.27      | -         |
| 1979          | 11            | 17.13             | 2.40                            | -                               | -                                | -                  | 14.73                            | 7,893          | 1.9                        | 14.73     | -         |
| 1980          | 12            | 13.64             | 1.91                            | -                               | -                                | -                  | 11.73                            | 8,123          | 1.4                        | 11.73     | -         |
| 1981          | 13            | 12.67             | 1.77                            | -                               | -                                | -                  | 10.90                            | 8,361          | 1.3                        | 10.90     | -         |
| 1982          | 14            | 5.51              | 0.77                            | 0.02                            | 0.06                             | -                  | 4.80                             | 8,606          | 0.6                        | 4.80      | -         |
| 1983          | 15            | 5.10              | 0.71                            | -                               | -                                | -                  | 4.39                             | 8,857          | 0.5                        | 4.39      | -         |
| 1984          | 16            | 5.94              | 0.83                            | -                               | -                                | -                  | 5.11                             | 9,115          | 0.6                        | 5.11      | -         |
| 1985          | 17            | 7.68              | 1.08                            | -                               | -                                | -                  | 6.60                             | 9,378          | 0.7                        | 6.60      | -         |
| 1986          | 18            | 8.04              | 1.13                            | -                               | -                                | -                  | 6.91                             | 9,647          | 0.7                        | 6.91      | -         |
| 1987          |               | 6.43              | *                               | *                               | *                                | *                  | *                                | 9,923          | *                          | *         | *         |
| Pronostico    |               | *9                |                                 |                                 |                                  |                    |                                  | *9             |                            |           |           |
| 2000          | 32            | 9.60              | 1.30                            | -                               | -                                | -                  | 8.30                             | 13,939         | 1.10                       | 15.30     | -7.00     |
| 2005          | 37            | 9.60              | 1.30                            | -                               | -                                | -                  | 8.30                             | 15,509         | 1.10                       | 17.10     | -8.80     |
| 2010          | 42            | 9.60              | 1.30                            | -                               | -                                | -                  | 8.30                             | 17,099         | 1.10                       | 18.80     | -10.50    |
| 2015          | 47            | 9.60              | 1.30                            | -                               | -                                | -                  | 8.30                             | 18,689         | 1.10                       | 20.60     | -12.30    |
| 2020          | 52            | 9.60              | 1.30                            | -                               | -                                | -                  | 8.30                             | 20,279         | 1.10                       | 22.30     | -14.00    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Semilla y desperdicio: 14% (2) = (1) x 14%

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*3 Fuente: FAO, Anuario Comercial, 1974-1986.

\*6 1969-1986: (8) = (6)/(7)

\*4 Las tasas de extracción de aceite cru (4) = (3)/0.35

\*7 1969-1986: (9) = (6)

Fuente: FAO, Factores de conversión técnico para prod. agr. primarios, 196 2000-2020: (9) = (7) x (8)

\*5 (6) = (1) - (2) + (4) - (5)

\*8 (10) = (6) - (9)

\*9 Se aplicaron cifras promedio para el periodo 1969 a 1986, para producción y consumo per, futuro, por razones de tendencia estacionaria

Producción:  $y = a * x^b$   $a = 7,97$   $b = 0,058125$   $x = \text{Años en orde y} = \text{Producción}$

$r = 0,12$  (Nivel de confianza 5%, df. = 16:  $r > 0,468$  No correlación)

Consumo per capita:

$y = a + \text{EXP}(x*b)$   $a = 1,46$   $b = -0,036221$   $x = \text{Años en orden}$   $y = \text{Consumo per capita}$

$r = 0,45$  (Nivel de confianza 5%, df. = 16:  $r > 0,468$  No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (34/46)

| Soya en Grano |            |                               |                                             |                            |                                          |                            |                                              |                           |                         |                     |               |         |
|---------------|------------|-------------------------------|---------------------------------------------|----------------------------|------------------------------------------|----------------------------|----------------------------------------------|---------------------------|-------------------------|---------------------|---------------|---------|
| Años          | Año en Ord | Oferta Interna                |                                             |                            |                                          |                            | Demanda Interna                              |                           |                         |                     | *8<br>Balance |         |
|               |            | Produc-<br>ción*1<br>(1.000t) | Semilla<br>y desper-<br>dicio*2<br>(1.000t) | Importación*4              |                                          | Export<br>ción*<br>(1.000) | Disponi-<br>bilidad<br>Consumo*5<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo *7              |                     |               |         |
|               |            |                               |                                             | Soya d<br>Grano<br>(1.000) | Soya de<br>Aceite Total<br>(1.000t) (*3) |                            |                                              |                           | per<br>Capita*6<br>(kg) | Demanda<br>(1.000t) |               |         |
|               |            |                               |                                             | (1)                        | (2)                                      |                            |                                              |                           | (3)                     | (4)                 |               | (5)     |
| Actual        |            |                               |                                             |                            |                                          |                            |                                              |                           |                         |                     |               |         |
| 1962          |            | -                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 4,696                   | *                   | *             | *       |
| 1963          |            | -                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 4,846                   | *                   | *             | *       |
| 1964          |            | -                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 5,001                   | *                   | *             | *       |
| 1965          |            | -                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 5,162                   | *                   | *             | *       |
| 1966          |            | -                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 5,330                   | *                   | *             | *       |
| 1967          |            | -                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 5,503                   | *                   | *             | *       |
| 1968          |            | 0.48                          | *                                           | *                          | *                                        | *                          | *                                            | *                         | 5,682                   | *                   | *             | *       |
| 1969          | 1          | 0.47                          | 0.03                                        | -                          | 11.58                                    | 64.33                      | -                                            | 64.77                     | 5,865                   | 11.0                | 64.77         | -       |
| 1970          | 2          | 0.60                          | 0.04                                        | -                          | 9.08                                     | 50.44                      | -                                            | 51.00                     | 6,051                   | 8.4                 | 51.00         | -       |
| 1971          | 3          | 1.09                          | 0.07                                        | -                          | 16.15                                    | 89.72                      | -                                            | 90.74                     | 6,240                   | 14.5                | 90.74         | -       |
| 1972          | 4          | 0.85                          | 0.05                                        | -                          | 18.43                                    | 102.39                     | -                                            | 103.19                    | 6,432                   | 16.0                | 103.19        | -       |
| 1973          | 5          | 1.54                          | 0.09                                        | -                          | 13.44                                    | 74.67                      | -                                            | 76.12                     | 6,629                   | 11.5                | 76.12         | -       |
| 1974          | 6          | 4.38                          | 0.26                                        | -                          | 8.73                                     | 48.50                      | -                                            | 52.62                     | 6,829                   | 7.7                 | 52.62         | -       |
| 1975          | 7          | 12.32                         | 0.74                                        | -                          | 15.59                                    | 86.61                      | -                                            | 98.19                     | 7,035                   | 14.0                | 98.19         | -       |
| 1976          | 8          | 17.20                         | 1.03                                        | 0.08                       | 16.16                                    | 89.86                      | -                                            | 106.03                    | 7,243                   | 14.6                | 106.03        | -       |
| 1977          | 9          | 19.27                         | 1.16                                        | -                          | 21.52                                    | 119.56                     | -                                            | 137.67                    | 7,455                   | 18.5                | 137.67        | -       |
| 1978          | 10         | 25.39                         | 1.52                                        | 0.50                       | 21.17                                    | 118.11                     | -                                            | 141.98                    | 7,671                   | 18.5                | 141.98        | -       |
| 1979          | 11         | 29.90                         | 1.79                                        | 0.20                       | 19.56                                    | 108.87                     | -                                            | 136.98                    | 7,893                   | 17.4                | 136.98        | -       |
| 1980          | 12         | 33.55                         | 2.01                                        | 0.15                       | 30.01                                    | 166.87                     | -                                            | 198.41                    | 8,123                   | 24.4                | 198.41        | -       |
| 1981          | 13         | 33.18                         | 1.99                                        | 16.57                      | 25.73                                    | 159.51                     | -                                            | 190.70                    | 8,361                   | 22.8                | 190.70        | -       |
| 1982          | 14         | 37.42                         | 2.25                                        | 15.51                      | 35.58                                    | 213.18                     | -                                            | 248.35                    | 8,606                   | 28.9                | 248.35        | -       |
| 1983          | 15         | 14.07                         | 0.84                                        | 29.50                      | 65.37                                    | 392.67                     | -                                            | 405.90                    | 8,857                   | 45.8                | 405.90        | -       |
| 1984          | 16         | 47.48                         | 2.85                                        | 35.51                      | 50.25                                    | 314.68                     | -                                            | 359.31                    | 9,115                   | 39.4                | 359.31        | -       |
| 1985          | 17         | 62.89                         | 3.77                                        | -                          | 34.98                                    | 194.33                     | -                                            | 253.45                    | 9,378                   | 27.0                | 253.45        | -       |
| 1986          | 18         | 76.26                         | 4.58                                        | -                          | 28.00                                    | 155.56                     | -                                            | 227.24                    | 9,647                   | 23.6                | 227.24        | -       |
| 1987          |            | *                             | *                                           | *                          | *                                        | *                          | *                                            | *                         | 9,923                   | *                   | *             | *       |
| Pronostico    |            | *9                            |                                             |                            |                                          |                            | *10                                          |                           |                         |                     |               |         |
| 2000          | 32         | 108.00                        | 6.00                                        | -                          | -                                        | -                          | -                                            | 102.00                    | 13,939                  | 33.00               | 460.00        | -358.00 |
| 2005          | 37         | 127.00                        | 8.00                                        | -                          | -                                        | -                          | -                                            | 119.00                    | 15,509                  | 34.00               | 527.00        | -408.00 |
| 2010          | 42         | 146.00                        | 9.00                                        | -                          | -                                        | -                          | -                                            | 137.00                    | 17,099                  | 35.00               | 598.00        | -461.00 |
| 2015          | 47         | 164.00                        | 10.00                                       | -                          | -                                        | -                          | -                                            | 154.00                    | 18,689                  | 36.00               | 673.00        | -519.00 |
| 2020          | 52         | 183.00                        | 11.00                                       | -                          | -                                        | -                          | -                                            | 172.00                    | 20,279                  | 37.00               | 750.00        | -578.00 |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Semilla y desperdicio: (2) = (1) x 6%  
(Fuente: FAO, Hoja de Balance Nutricionales, 1979-1981 Promedio, 1984.)

\*3 Equivalente en soya grano (5) = (3) + (4)/0.18  
Tasa de extracción de aceite crudo: 18%  
(Fuente: FAO, Factores de Conversión técnica para productos agrícolas primarios, 1960.)

\*4 Fuente: FAO, Anuario Comercial, 1974- \*7 1969-1986: (10) = (7)

\*5 (7) = (1) - (2) + (5) - (6) 2000-2020: (10) = (8) x (9)

\*6 1969-1986: (9) = (7)/(8) \*8 (11) = (7) - (10)

\*9  $y = a + bx$   $a = -12,5$   $b = 3,76$   $r = 0,90$   $x = \text{Años en ord n}$   $y = \text{Producción}$

\*10  $y = a + b * L$   $a = 2,43$   $b = 20,260208$   $r = 0,69$   $x = \text{Años en ord n}$   $y = \text{Consumo}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (35/46)

| Algodón en rama |               |                |               |               |               |                          |           |                      |            |          |
|-----------------|---------------|----------------|---------------|---------------|---------------|--------------------------|-----------|----------------------|------------|----------|
|                 |               | Oferta Interna |               |               |               | Demanda Interna          |           |                      | *7         |          |
| Años            | Años en Orden | Producción*1   | Importación*2 | Exportación*2 | Desperdicio*3 | Disponibilidad Consumo*4 | Población | Consumo per Capita*5 | *6 Demanda | Balance  |
|                 |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)      | (1.000t)                 | (1.000)   | (kg)                 | (1.000t)   | (1.000t) |
|                 |               | (1)            | (2)           | (3)           | (4)           | (5)                      | (6)       | (7)                  | (8)        | (9)      |
| Actual          |               |                |               |               |               |                          |           |                      |            |          |
| 1962            |               | 11.11          | *             | *             | *             | *                        | 4,696     | *                    | *          | *        |
| 1963            |               | 9.47           | *             | *             | *             | *                        | 4,846     | *                    | *          | *        |
| 1964            |               | 13.99          | *             | *             | *             | *                        | 5,001     | *                    | *          | *        |
| 1965            |               | 18.25          | *             | *             | *             | *                        | 5,162     | *                    | *          | *        |
| 1966            |               | 17.64          | *             | *             | *             | *                        | 5,330     | *                    | *          | *        |
| 1967            |               | 15.77          | *             | *             | *             | *                        | 5,503     | *                    | *          | *        |
| 1968            |               | 13.95          | *             | *             | *             | *                        | 5,682     | *                    | *          | *        |
| 1969            | 1             | 23.56          | 2.16          | -             | 1.29          | 24.43                    | 5,865     | 4.2                  | 24.43      | -        |
| 1970            | 2             | 7.55           | 0.12          | -             | 0.38          | 7.29                     | 6,051     | 1.2                  | 7.29       | -        |
| 1971            | 3             | 10.71          | 1.70          | -             | 0.62          | 11.79                    | 6,240     | 1.9                  | 11.79      | -        |
| 1972            | 4             | 11.56          | 3.30          | -             | 0.74          | 14.12                    | 6,432     | 2.2                  | 14.12      | -        |
| 1973            | 5             | 19.55          | 2.80          | -             | 1.12          | 21.23                    | 6,629     | 3.2                  | 21.23      | -        |
| 1974            | 6             | 41.90          | 2.45          | -             | 2.22          | 42.13                    | 6,829     | 6.2                  | 42.13      | -        |
| 1975            | 7             | 30.21          | 0.40          | 0.20          | 1.52          | 28.89                    | 7,035     | 4.1                  | 28.89      | -        |
| 1976            | 8             | 21.72          | 0.09          | 3.31          | 0.93          | 17.57                    | 7,243     | 2.4                  | 17.57      | -        |
| 1977            | 9             | 26.90          | -             | 0.12          | 1.34          | 25.44                    | 7,455     | 3.4                  | 25.44      | -        |
| 1978            | 10            | 26.56          | 0.04          | 0.10          | 1.33          | 25.17                    | 7,671     | 3.3                  | 25.17      | -        |
| 1979            | 11            | 25.17          | 1.74          | 2.46          | 1.22          | 23.23                    | 7,893     | 2.9                  | 23.23      | -        |
| 1980            | 12            | 39.81          | 0.19          | 0.01          | 2.00          | 37.99                    | 8,123     | 4.7                  | 37.99      | -        |
| 1981            | 13            | 41.97          | 0.17          | 3.07          | 1.95          | 37.12                    | 8,361     | 4.4                  | 37.12      | -        |
| 1982            | 14            | 25.20          | 0.20          | 0.01          | 1.27          | 24.12                    | 8,606     | 2.8                  | 24.12      | -        |
| 1983            | 15            | 4.15           | 5.52          | -             | 0.48          | 9.19                     | 8,857     | 1.0                  | 9.19       | -        |
| 1984            | 16            | 7.83           | 11.72         | -             | 0.98          | 18.57                    | 9,115     | 2.0                  | 18.57      | -        |
| 1985            | 17            | 18.85          | 5.02          | -             | 1.19          | 22.68                    | 9,378     | 2.4                  | 22.68      | -        |
| 1986            | 18            | 36.91          | 2.00          | -             | 1.95          | 36.96                    | 9,647     | 3.8                  | 36.96      | -        |
| 1987            |               | *              | *             | *             | *             | *                        | 9,923     | *                    | *          | *        |
| Forecast        |               | *8             |               |               |               |                          |           | *9                   |            |          |
| 2000            | 32            | 23.30          | -             | -             | 1.20          | 22.10                    | 13,939    | 3.1                  | 43.20      | -21.10   |
| 2005            | 37            | 23.30          | -             | -             | 1.20          | 22.10                    | 15,509    | 3.1                  | 48.10      | -26.00   |
| 2010            | 42            | 23.30          | -             | -             | 1.20          | 22.10                    | 17,099    | 3.1                  | 53.00      | -30.90   |
| 2015            | 47            | 23.30          | -             | -             | 1.20          | 22.10                    | 18,689    | 3.1                  | 57.90      | -35.80   |
| 2020            | 52            | 23.30          | -             | -             | 1.20          | 22.10                    | 20,279    | 3.1                  | 62.90      | -40.80   |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: assumed at 5% (4) = {(1)+(2)-(3)} x 5%

\*4 (5) = (1) + (2) - (3) - (4)

\*5 1969-1986:  $(7) = (5)/(6)$

\*6 1969-1986: (8) = (5)

2000-2020: (8) = (6) x (7)

\*7 (9) = (5) - (8)

\*8 Por tendencia estacionaria, se aplicaron cifras promedio para el periodo 1969

a 1986, para producción futura.

$$y = a + b * \text{LOG}x \quad a = 15,791 \quad b = 8,595057 \quad x = \text{Años en orden} \quad y = \text{Producción}$$

$r = 0,25$  (Nivel de confianza 5%. df. = 16:  $r > 0,468$  no correlación)

\*9 Por tendencia estacionaria, se aplicaron cifras promedio para el periodo 1969

a 1986, para el consumo per capita futuro

$$y = a * x^b \quad a = 2,6829 \quad b = 0,027553 \quad x = \text{Años en orden} \quad y = \text{Consumo per capita}$$

$r = 0,05$  (Nivel de confianza 5%,  $df. = 16$ :  $r > 0,468$  no correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (36/46)

| Guaba    |               |                               |                              |                              |                                |                                              |                           |                                    |                           |                           |
|----------|---------------|-------------------------------|------------------------------|------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|---------------------------|---------------------------|
| Años     | Años en Orden | Oferta Interna                |                              |                              |                                |                                              | Demanda Interna           |                                    |                           | *6<br>Balance<br>(1.000t) |
|          |               | Produc-<br>ción*1<br>(1.000t) | Importa-<br>ción<br>(1.000t) | Exporta-<br>ción<br>(1.000t) | Desper-<br>dicio*2<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*3<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*4<br>(kg) | *5<br>Demanda<br>(1.000t) |                           |
|          |               | (1)                           | (2)                          | (3)                          | (4)                            | (5)                                          | (6)                       | (7)                                | (8)                       | (9)                       |
| Actual   |               | *                             | *                            | *                            | *                              | *                                            |                           | *                                  | *                         | *                         |
| 1980     |               | *                             | *                            | *                            | *                              | *                                            | 8,123                     | *                                  | *                         | *                         |
| 1981     |               | *                             | *                            | *                            | *                              | *                                            | 8,361                     | *                                  | *                         | *                         |
| 1982     |               | *                             | *                            | *                            | *                              | *                                            | 8,606                     | *                                  | *                         | *                         |
| 1983     |               | *                             | *                            | *                            | *                              | *                                            | 8,857                     | *                                  | *                         | *                         |
| 1984     |               | *                             | *                            | *                            | *                              | *                                            | 9,115                     | *                                  | *                         | *                         |
| 1985     |               | *                             | *                            | *                            | *                              | *                                            | 9,378                     | *                                  | *                         | *                         |
| 1986     | 1             | 7.08                          | -                            | -                            | 0.71                           | 6.37                                         | 9,647                     | 0.66                               | 6.37                      | -                         |
| 1987     | 2             | 2.30                          | -                            | -                            | 0.23                           | 2.07                                         | 9,923                     | 0.21                               | 2.07                      | *                         |
| 1988     | 3             | 25.32                         | -                            | -                            | 2.53                           | 22.79                                        | 10,207                    | 2.23                               | 22.79                     |                           |
| Forecast |               | *7                            |                              |                              |                                |                                              |                           | *7                                 |                           |                           |
| 2000     | 15            | 11.60                         | -                            | -                            | 1.20                           | 10.40                                        | 13,939                    | 1.00                               | 14.00                     | -3.60                     |
| 2005     | 20            | 11.60                         | -                            | -                            | 1.20                           | 10.40                                        | 15,509                    | 1.00                               | 16.00                     | -5.60                     |
| 2010     | 25            | 11.60                         | -                            | -                            | 1.20                           | 10.40                                        | 17,099                    | 1.00                               | 17.00                     | -6.60                     |
| 2015     | 30            | 11.60                         | -                            | -                            | 1.20                           | 10.40                                        | 18,689                    | 1.00                               | 19.00                     | -8.60                     |
| 2020     | 35            | 11.60                         | -                            | -                            | 1.20                           | 10.40                                        | 20,279                    | 1.00                               | 20.00                     | -9.60                     |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Desperdicio: se asume el 10 (4) = ((1)+(2)-(3)) x 10%

\*5 1986-1988: (8) = (5)

2000-2020: (8) = (6) x (7)

\*6 (9) = (5) - (8)

\*3 (5) = (1) + (2) - (3) - (4)

\*4 1986-1988: (7) = (5)/(6)

\*8 Se aplicaron cifras promedio para el periodo 1986 a 1987, para consumo per capita.

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (37/46)

| Café en grano       |                               |                                |                                |                                |                                              |                           |                                    |                       |                       |
|---------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|-----------------------|-----------------------|
| Años<br>en<br>Orden | Oferta Interna                |                                |                                |                                |                                              | Demanda Interna           |                                    |                       | Balance*7<br>(1.000t) |
|                     | Produc-<br>ción*1<br>(1.000t) | Importa-<br>ción*2<br>(1.000t) | Exporta-<br>ción*2<br>(1.000t) | Desper-<br>dicio*3<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*4<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*5<br>(kg) | Demanda*6<br>(1.000t) |                       |
|                     | (1)                           | (2)                            | (3)                            | (4)                            | (5)                                          | (6)                       | (7)                                | (8)                   |                       |
| Actual              |                               |                                |                                |                                |                                              |                           |                                    |                       |                       |
| 1962                | 52.84                         | *                              | *                              | *                              | *                                            | 4,696                     | *                                  | *                     | *                     |
| 1963                | 54.89                         | *                              | *                              | *                              | *                                            | 4,846                     | *                                  | *                     | *                     |
| 1964                | 46.44                         | *                              | *                              | *                              | *                                            | 5,001                     | *                                  | *                     | *                     |
| 1965                | 65.41                         | *                              | *                              | *                              | *                                            | 5,162                     | *                                  | *                     | *                     |
| 1966                | 73.53                         | *                              | *                              | *                              | *                                            | 5,330                     | *                                  | *                     | *                     |
| 1967                | 66.24                         | *                              | *                              | *                              | *                                            | 5,503                     | *                                  | *                     | *                     |
| 1968                | 62.91                         | *                              | *                              | *                              | *                                            | 5,682                     | *                                  | *                     | *                     |
| 1969                | 1 55.89                       | -                              | 38.16                          | 5.85                           | 11.88                                        | 5,865                     | 2.0                                | 11.88                 | -                     |
| 1970                | 2 60.43                       | -                              | 52.58                          | 2.59                           | 5.26                                         | 6,051                     | 0.9                                | 5.26                  | -                     |
| 1971                | 3 59.33                       | -                              | 46.35                          | 4.28                           | 8.70                                         | 6,240                     | 1.4                                | 8.70                  | -                     |
| 1972                | 4 58.43                       | -                              | 51.80                          | 2.19                           | 4.44                                         | 6,432                     | 0.7                                | 4.44                  | -                     |
| 1973                | 5 52.12                       | -                              | 62.48                          | -3.42                          | -6.94                                        | 6,629                     | -1.0 *1                            | -6.94                 | -                     |
| 1974                | 6 76.99                       | -                              | 59.61                          | 5.74                           | 11.64                                        | 6,829                     | 1.7                                | 11.64                 | -                     |
| 1975                | 7 75.67                       | -                              | 64.31                          | 3.75                           | 7.61                                         | 7,035                     | 1.1                                | 7.61                  | -                     |
| 1976                | 8 91.64                       | -                              | 91.90                          | -0.09                          | -0.17                                        | 7,243                     | 0.0                                | -0.17                 | -                     |
| 1977                | 9 82.68                       | -                              | 48.96                          | 11.13                          | 22.59                                        | 7,455                     | 3.0                                | 22.59                 | -                     |
| 1978                | 10 75.45                      | -                              | 98.54                          | -7.62                          | -15.47                                       | 7,671                     | -2.0 *1                            | -15.47                | -                     |
| 1979                | 11 89.73                      | -                              | 82.02                          | 2.54                           | 5.17                                         | 7,893                     | 0.7                                | 5.17                  | -                     |
| 1980                | 12 69.45                      | -                              | 53.95                          | 5.12                           | 10.38                                        | 8,123                     | 1.3                                | 10.38                 | -                     |
| 1981                | 13 86.09                      | -                              | 55.99                          | 9.93                           | 20.17                                        | 8,361                     | 2.4                                | 20.17                 | -                     |
| 1982                | 14 83.94                      | -                              | 73.68                          | 3.39                           | 6.87                                         | 8,606                     | 0.8                                | 6.87                  | -                     |
| 1983                | 15 81.08                      | -                              | 75.05                          | 1.99                           | 4.04                                         | 8,857                     | 0.5                                | 4.04                  | -                     |
| 1984                | 16 97.26                      | -                              | 71.54                          | 8.49                           | 17.23                                        | 9,115                     | 1.9                                | 17.23                 | -                     |
| 1985                | 17 120.86                     | -                              | 75.31                          | 15.03                          | 30.52                                        | 9,378                     | 3.3                                | 30.52                 | -                     |
| 1986                | 18 101.59                     | -                              | #####                          | -2.38                          | -4.83                                        | 9,647                     | -0.5 *1                            | -4.83                 | -                     |
| 1987                | *                             | *                              | *                              | *                              | *                                            | 9,923                     | *                                  | *                     | *                     |
| Pronostico          | *8                            |                                | *9                             |                                |                                              |                           | *10                                |                       |                       |
| 2000                | 32 107.00                     | -                              | 85.0                           | 7.00                           | 15.00                                        | 13,939                    | 1.0                                | 14.00                 | 1.00                  |
| 2005                | 37 111.00                     | -                              | 85.0                           | 9.00                           | 17.00                                        | 15,509                    | 1.0                                | 16.00                 | 1.00                  |
| 2010                | 42 114.00                     | -                              | 85.0                           | 10.00                          | 19.00                                        | 17,099                    | 1.0                                | 17.00                 | 2.00                  |
| 2015                | 47 117.00                     | -                              | 85.0                           | 11.00                          | 21.00                                        | 18,689                    | 1.0                                | 19.00                 | 2.00                  |
| 2020                | 52 120.00                     | -                              | 85.0                           | 12.00                          | 23.00                                        | 20,279                    | 1.0                                | 20.00                 | 3.00                  |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Café verde o tostado y sucedáneos del café que contengan c \*5 1969-1986: (7) = (5)/(6)

Fuente: FAO, Anuario Comercial, 1974-1986. \*6 1969-1986: (8) = (5)

\*3 Desperdicio: 33% (4) = {(1)+(2)-(3)} x 0.33 2000-2020: (8) = (6) x (7)

Fuente: FAO, Hoja de Bal. Nutric.1979-1981 Promedio,19 \*7 (9) = (5) - (8)

\*4 (5) = (1) + (2) - (3) - (4)

\*8  $y = a * x^b$   $a = 48,38$   $b = 0,229263$   $r = 0$ ,  $x$  = Años en orden  $y$  = Producción

\*9 Se asume que el valor exportable en el futuro mantendra el nivel del periodo 1984 to 1986.

\*10 Por falta de datos se usan cifras negativas.

Una cifra promedio se usa para el periodo 1969 a 1985 para el consumo per capita.

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (38/46)

| Té         |               |                   |                    |                    |                    |                                  |                |                            |           |           |
|------------|---------------|-------------------|--------------------|--------------------|--------------------|----------------------------------|----------------|----------------------------|-----------|-----------|
|            |               | Oferta Interna    |                    |                    |                    | Demanda Interna                  |                |                            |           |           |
| Años       | Años en Orden | Produc-<br>ción*1 | Importa-<br>ción*2 | Exporta-<br>ción*2 | Desper-<br>dicio*3 | Disponi-<br>bilidad<br>Consumo*4 | Pobla-<br>ción | Consumo<br>per<br>Capita*5 | Demanda*6 | Balance*7 |
|            |               | (1.000t)          | (1.000t)           | (1.000t)           | (1.000t)           | (1.000 t)                        | (1.000)        | (kg)                       | (1.000t)  | (1.000t)  |
| Actual     |               | (1)               | (2)                | (3)                | (4)                | (5)                              | (6)            | (7)                        | (8)       | (9)       |
| 1965       |               | *                 | *                  | *                  | *                  | *                                | 5,162          | *                          | *         | *         |
| 1966       |               | *                 | *                  | *                  | *                  | *                                | 5,330          | *                          | *         | *         |
| 1967       |               | *                 | *                  | *                  | *                  | *                                | 5,503          | *                          | *         | *         |
| 1968       |               | *                 | *                  | *                  | *                  | *                                | 5,682          | *                          | *         | *         |
| 1969       | 1             | 0.27              | 0.01               | 0.11               | -                  | 0.17                             | 5,865          | 0.03                       | 0.17      | -         |
| 1970       | 2             | 0.45              | 0.01               | 0.29               | -                  | 0.17                             | 6,051          | 0.03                       | 0.17      | -         |
| 1971       | 3             | 3.83              | 0.01               | 0.42               | -                  | 3.42                             | 6,240          | 0.55                       | 3.42      | -         |
| 1972       | 4             | 8.42              | -                  | 0.47               | -                  | 7.95                             | 6,432          | 1.24                       | 7.95      | -         |
| 1973       | 5             | 9.00              | -                  | 0.48               | -                  | 8.52                             | 6,629          | 1.29                       | 8.52      | -         |
| 1974       | 6             | 11.76             | -                  | 1.02               | -                  | 10.74                            | 6,829          | 1.57                       | 10.74     | -         |
| 1975       | 7             | 7.67              | -                  | 0.73               | -                  | 6.94                             | 7,035          | 0.99                       | 6.94      | -         |
| 1976       | 8             | 6.47              | -                  | 1.22               | -                  | 5.25                             | 7,243          | 0.72                       | 5.25      | -         |
| 1977       | 9             | 6.53              | -                  | 0.56               | -                  | 5.97                             | 7,455          | 0.80                       | 5.97      | -         |
| 1978       | 10            | 8.50              | -                  | 1.64               | -                  | 6.86                             | 7,671          | 0.89                       | 6.86      | -         |
| 1979       | 11            | 7.28              | -                  | 1.57               | -                  | 5.71                             | 7,893          | 0.72                       | 5.71      | -         |
| 1980       | 12            | 7.29              | -                  | 1.28               | -                  | 6.01                             | 8,123          | 0.74                       | 6.01      | -         |
| 1981       | 13            | 8.27              | -                  | 0.62               | -                  | 7.65                             | 8,361          | 0.91                       | 7.65      | -         |
| 1982       | 14            | 8.27              | -                  | 0.43               | -                  | 7.84                             | 8,606          | 0.91                       | 7.84      | -         |
| 1983       | 15            | 2.60              | -                  | 0.53               | -                  | 2.07                             | 8,857          | 0.23                       | 2.07      | -         |
| 1984       | 16            | 2.76              | -                  | 0.67               | -                  | 2.09                             | 9,115          | 0.23                       | 2.09      | -         |
| 1985       | 17            | 4.29              | -                  | 0.49               | -                  | 3.80                             | 9,378          | 0.41                       | 3.80      | -         |
| 1986       | 18            | 3.89              | -                  | 0.89               | -                  | 3.00                             | 9,647          | 0.31                       | 3.00      | -         |
| 1987       |               | 2.76              | *                  | *                  | *                  | *                                | 9,923          | *                          | *         | *         |
| Pronostico |               | *8                |                    |                    |                    |                                  | *9             |                            |           |           |
| 2000       | 32            | 13.60             | -                  | -                  | -                  | 13.60                            | 13,939         | 1.30                       | 18.10     | -4.50     |
| 2005       | 37            | 15.20             | -                  | -                  | -                  | 15.20                            | 15,509         | 1.50                       | 23.30     | -8.10     |
| 2010       | 42            | 16.70             | -                  | -                  | -                  | 16.70                            | 17,099         | 1.60                       | 27.40     | -10.70    |
| 2015       | 47            | 18.20             | -                  | -                  | -                  | 18.20                            | 18,689         | 1.70                       | 31.80     | -13.60    |
| 2020       | 52            | 19.70             | -                  | -                  | -                  | 19.70                            | 20,279         | 1.90                       | 38.50     | -18.80    |

\*1 Hojas de Té secadas y procesadas de hojas verdes: 22 % con 5 % de contenido de humedad  
Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Fuente: FAO, Trade Yearbook, 1974-1986.

\*3 Desperdicio: Insignificante (Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.)

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$   $a = 0,941$   $b = 0,770113$   $r = 0,60$

\*5 1969-1986: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1969-1986: (8) = (5) \*9  $y = a * x^b$   $a = 0,117$   $b = 0,699$   $r = 0,49$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo}$

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (39/46)

| Achiote    |               |                |               |               |               |                          |           |                      |            |          |
|------------|---------------|----------------|---------------|---------------|---------------|--------------------------|-----------|----------------------|------------|----------|
|            |               | Oferta Interna |               |               |               | Demanda Interna          |           |                      | *7         |          |
| Años       | Años en Orden | Producción*1   | Importación*2 | Exportación*2 | Desperdicio*3 | Disponibilidad Consumo*4 | Población | Consumo per Capita*5 | *6 Demanda | Balance  |
|            |               | (1.000t)       | (1.000t)      | (1.000t)      | (1.000t)      | (1.000t)                 | (1.000)   | (kg)                 | (1.000t)   | (1.000t) |
|            |               | (1)            | (2)           | (3)           | (4)           | (5)                      | (6)       | (7)                  | (8)        | (9)      |
| Actual     |               | *              | *             | *             | *             | *                        | 6,629     | *                    | *          | *        |
| 1973       |               | *              | *             | *             | *             | *                        | 6,829     | *                    | *          | *        |
| 1974       |               | *              | *             | *             | *             | *                        | 7,035     | *                    | *          | *        |
| 1975       |               |                |               |               |               |                          |           |                      |            |          |
| 1976       | 1             | 0.66           | *             | *             | 0.03          | 0.63                     | 7,243     | 0.09                 | 0.63       | -        |
| 1977       | 2             | 0.54           | *             | *             | 0.03          | 0.51                     | 7,455     | 0.07                 | 0.51       | -        |
| 1978       | 3             | 0.74           | *             | *             | 0.04          | 0.70                     | 7,671     | 0.09                 | 0.70       | -        |
| 1979       | 4             | 0.96           | *             | *             | 0.05          | 0.91                     | 7,893     | 0.12                 | 0.91       | -        |
| 1980       | 5             | 1.22           | *             | *             | 0.06          | 1.16                     | 8,123     | 0.14                 | 1.16       | -        |
| 1981       | 6             | 1.42           | *             | *             | 0.07          | 1.35                     | 8,361     | 0.16                 | 1.35       | -        |
| 1982       | 7             | 1.16           | *             | *             | 0.06          | 1.10                     | 8,606     | 0.13                 | 1.10       | -        |
| 1983       | 8             | 0.95           | *             | *             | 0.05          | 0.90                     | 8,857     | 0.10                 | 0.90       | -        |
| 1984       | 9             | 0.81           | *             | *             | 0.04          | 0.77                     | 9,115     | 0.08                 | 0.77       | -        |
| 1985       | 10            | 0.75           | *             | *             | 0.04          | 0.71                     | 9,378     | 0.08                 | 0.71       | -        |
| 1986       | 11            | 0.29           | *             | *             | 0.01          | 0.28                     | 9,647     | 0.03                 | 0.28       | -        |
| 1987       | 12            | 0.26           | *             | *             | 0.01          | 0.25                     | 9,923     | 0.03                 | 0.25       | -        |
| Pronóstico |               | *8             |               |               |               |                          |           | *9                   |            |          |
| 2000       | 25            | 0.81           | -             | -             | 0.04          | 0.77                     | 13,939    | 0.09                 | 1.30       | -0.53    |
| 2005       | 30            | 0.81           | -             | -             | 0.04          | 0.77                     | 15,509    | 0.09                 | 1.40       | -0.63    |
| 2010       | 35            | 0.81           | -             | -             | 0.04          | 0.77                     | 17,099    | 0.09                 | 1.50       | -0.73    |
| 2015       | 40            | 0.81           | -             | -             | 0.04          | 0.77                     | 18,689    | 0.09                 | 1.70       | -0.93    |
| 2020       | 45            | 0.81           | -             | -             | 0.04          | 0.77                     | 20,279    | 0.09                 | 1.80       | -1.03    |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.

- MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 No hay datos disponibles. Se estima que el comercio del achiote es insignificante.

\*3 Desperdicio: se asume el 5 (4) = ((1)+(2)-(3)) x 5%

\*4 (5) = (1) + (2) - (3) - (4)

\*8  $y = a + bx$   $a = 1,004$   $b = -0,029$   $x = \text{Años en orden}$

$r = 0,30$  (Nivel de confianza 5%, df.= 10:  $r > 0,576$  no correlación)

\*9  $y = a + bx$   $a = 0,126$   $b = -0,005$   $x = \text{Años en orden}$

$r = 0,45$  (Nivel de confianza 5%, df.= 10:  $r > 0,576$  no correlación)

\*5 1976-1987: (7) = (5)/(6)

\*6 1976-1987: (8) = (5)

2000-2020: (8) = (6) x (7)

\*7 (9) = (5) - (8)

$y = \text{Producción}$

$y = \text{Consumo per capita}$

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (40/46)

| Azúcar Bruto |             |                                          |                                |                                            |                                |                                |                                              |                           |                                    |                           |
|--------------|-------------|------------------------------------------|--------------------------------|--------------------------------------------|--------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|---------------------------|
| Años         | en<br>Orden | Oferta Interna                           |                                |                                            |                                |                                | Demanda Interna                              |                           |                                    | *8<br>Balance             |
|              |             | Produc-<br>ción de<br>Caña*1<br>(1.000t) | Desper-<br>dicio*2<br>(1.000t) | Produc-<br>ción de<br>Azúcar*3<br>(1.000t) | Importa-<br>ción*4<br>(1.000t) | Exporta-<br>ción*4<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*5<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*6<br>(kg) | *7<br>Demanda<br>(1.000t) |
|              |             | (1)                                      | (2)                            | (3)                                        | (4)                            | (5)                            | (6)                                          | (7)                       | (8)                                | (9)                       |
| Actual       |             | (1)                                      | (2)                            | (3)                                        | (4)                            | (5)                            | (6)                                          | (7)                       | (8)                                | (9)                       |
| 1967         |             | *                                        | *                              | *                                          | *                              | *                              | *                                            | 5,503                     | *                                  | *                         |
| 1968         |             | *                                        | *                              | *                                          | *                              | *                              | *                                            | 5,682                     | *                                  | *                         |
| 1969         |             | *                                        | *                              | *                                          | -                              | 101.2                          | *                                            | 5,865                     | *                                  | *                         |
| 1970         |             | *                                        | *                              | *                                          | -                              | 64.6                           | *                                            | 6,051                     | *                                  | *                         |
| 1971         |             | *                                        | *                              | *                                          | -                              | 85.9                           | *                                            | 6,240                     | *                                  | *                         |
| 1972         |             | *                                        | *                              | *                                          | -                              | 117.1                          | *                                            | 6,432                     | *                                  | *                         |
| 1973         |             | *                                        | *                              | *                                          | -                              | 81.7                           | *                                            | 6,629                     | *                                  | *                         |
| 1974         |             | *                                        | *                              | *                                          | -                              | 49.8                           | *                                            | 6,829                     | *                                  | *                         |
| 1975         |             | *                                        | *                              | *                                          | -                              | 49.6                           | *                                            | 7,035                     | *                                  | *                         |
| 1976         | 1           | 3,187                                    | 159                            | 393.6                                      | -                              | 33.0                           | 360.6                                        | 7,243                     | 49.8                               | 360.6                     |
| 1977         | 2           | 3,760                                    | 188                            | 464.4                                      | -                              | 49.3                           | 415.1                                        | 7,455                     | 55.7                               | 415.1                     |
| 1978         | 3           | 3,924                                    | 196                            | 484.6                                      | -                              | 32.0                           | 452.6                                        | 7,671                     | 59.0                               | 452.6                     |
| 1979         | 4           | 3,825                                    | 191                            | 472.4                                      | -                              | 69.2                           | 403.2                                        | 7,893                     | 51.1                               | 403.2                     |
| 1980         | 5           | 3,862                                    | 193                            | 477.0                                      | -                              | 67.4                           | 409.6                                        | 8,123                     | 50.4                               | 409.6                     |
| 1981         | 6           | 3,348                                    | 167                            | 413.5                                      | -                              | 47.3                           | 366.2                                        | 8,361                     | 43.8                               | 366.2                     |
| 1982         | 7           | 2,461                                    | 123                            | 303.9                                      | 20.6                           | -                              | 324.5                                        | 8,606                     | 37.7                               | 324.5                     |
| 1983         | 8           | 2,626                                    | 131                            | 324.4                                      | 55.5                           | -                              | 379.9                                        | 8,857                     | 42.9                               | 379.9                     |
| 1984         | 9           | 3,042                                    | 152                            | 375.7                                      | 55.2                           | 34.8                           | 396.1                                        | 9,115                     | 43.5                               | 396.1                     |
| 1985         | 10          | 2,694                                    | 135                            | 332.7                                      | 6.9                            | 18.9                           | 320.7                                        | 9,378                     | 34.2                               | 320.7                     |
| 1986         | 11          | 2,750                                    | 138                            | 339.6                                      | -                              | 16.6                           | 323.0                                        | 9,647                     | 33.5                               | 323.0                     |
| 1987         |             | *                                        | *                              | *                                          | *                              | *                              | *                                            | 9,923                     | *                                  | *                         |
| Pronostico   |             | *9                                       |                                |                                            |                                |                                |                                              | *10                       |                                    |                           |
| 2000         | 25          | 3,230                                    | 160                            | 400.0                                      | -                              | -                              | 400.0                                        | 13,939                    | 30.0                               | 420.0                     |
| 2005         | 30          | 3,230                                    | 160                            | 400.0                                      | -                              | -                              | 400.0                                        | 15,509                    | 28.0                               | 430.0                     |
| 2010         | 35          | 3,230                                    | 160                            | 400.0                                      | -                              | -                              | 400.0                                        | 17,099                    | 27.0                               | 460.0                     |
| 2015         | 40          | 3,230                                    | 160                            | 400.0                                      | -                              | -                              | 400.0                                        | 18,689                    | 26.0                               | 490.0                     |
| 2020         | 45          | 3,230                                    | 160                            | 400.0                                      | -                              | -                              | 400.0                                        | 20,279                    | 26.0                               | 530.0                     |

\*1 Caña para azúcar

 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1986.  
 - MAG, Encuesta de Superficie y Producción por Muestreo de Areas, 1986-1987.

\*2 Desperdicio: 5% of (1) Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*3 Azúcar bruto (3) = {(1) - (2)} x 13%

 Tasa de extracción media de azúcar bruto de la caña de azúcar: 13% (al 100° de polarización)  
 (Fuente: FAO, Factores de Conversion Técnica de productos agrícolas primarios, 1960)

\*4 Fuente: FAO, Anuario Comercial, 1974-1986 \*7 1976-1986: (9) = (6)

\*5 (6) = (3) + (4) - (5) 2000-2020: (9) = (7) x (8)

\*6 1976-1986: (8) = (6)/(7) \*8 (10) = (9) - (6)

\*9 Se aplicaron cifras promedio para el periodo 1976 to 1986, para la producción futura a causa de tendencia estacionaria.

 $y = a * x^b$   $a = 3920,2$   $b = -0,131114$   $x = \text{Años en orden}$   $y = \text{Producción}$ 
 $r = 0,56$  (Nivel de confianza 5%, df. = 9:  $r > 0,602$  No correlación)

 \*10  $y = a + b * \text{LOG}x$   $a = 59,08$   $b = -19,5004$   $r = 0,75$   $x = \text{Años en orden}$   $y = \text{Consumo}$



Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (41/46)

| Carne de Bovinos |               |                                   |                                    |                                    |                                |                                              |                           |                                    |                           |                          |
|------------------|---------------|-----------------------------------|------------------------------------|------------------------------------|--------------------------------|----------------------------------------------|---------------------------|------------------------------------|---------------------------|--------------------------|
| Años             | Años en Orden | Oferta Interna                    |                                    |                                    |                                | Demanda Interna                              |                           |                                    | *7<br>Balance<br>(1.000t) |                          |
|                  |               | *1<br>Produc-<br>ción<br>(1.000t) | *2<br>Impor-<br>tación<br>(1.000t) | *2<br>Expor-<br>tación<br>(1.000t) | Desper-<br>dicio*3<br>(1.000t) | Disponi-<br>bilidad<br>Consumo*4<br>(1.000t) | Pobla-<br>ción<br>(1.000) | Consumo<br>per<br>Capita*5<br>(kg) |                           | *6<br>Demanda<br>(1.000) |
| Actual           |               | (1)                               | (2)                                | (3)                                | (4)                            | (5)                                          | (6)                       | (7)                                | (8)                       | (9)                      |
| 1970             |               | *                                 | *                                  | *                                  | *                              | *                                            | 6,051                     | *                                  | *                         | *                        |
| 1971             |               | *                                 | *                                  | *                                  | *                              | *                                            | 6,240                     | *                                  | *                         | *                        |
| 1972             |               | *                                 | *                                  | *                                  | *                              | *                                            | 6,432                     | *                                  | *                         | *                        |
| 1973             |               | *                                 | *                                  | *                                  | *                              | *                                            | 6,629                     | *                                  | *                         | *                        |
| 1974             | 1             | 54.5                              | -                                  | -                                  | -                              | 54.5                                         | 6,829                     | 8.0                                | 54.5                      | -                        |
| 1975             | 2             | 57.1                              | -                                  | -                                  | -                              | 57.1                                         | 7,035                     | 8.1                                | 57.1                      | -                        |
| 1976             | 3             | 59.1                              | -                                  | -                                  | -                              | 59.1                                         | 7,243                     | 8.2                                | 59.1                      | -                        |
| 1977             | 4             | 62.1                              | -                                  | -                                  | -                              | 62.1                                         | 7,455                     | 8.3                                | 62.1                      | -                        |
| 1978             | 5             | 64.4                              | -                                  | -                                  | -                              | 64.4                                         | 7,671                     | 8.4                                | 64.4                      | -                        |
| 1979             | 6             | 68.4                              | -                                  | 0.1                                | -                              | 68.3                                         | 7,893                     | 8.7                                | 68.3                      | -                        |
| 1980             | 7             | 72.3                              | -                                  | -                                  | -                              | 72.3                                         | 8,123                     | 8.9                                | 72.3                      | -                        |
| 1981             | 8             | 72.2                              | -                                  | -                                  | -                              | 72.2                                         | 8,361                     | 8.6                                | 72.2                      | -                        |
| 1982             | 9             | 79.3                              | -                                  | 0.4                                | -                              | 78.9                                         | 8,606                     | 9.2                                | 78.9                      | -                        |
| 1983             | 10            | 79.6                              | -                                  | 0.1                                | -                              | 79.5                                         | 8,857                     | 9.0                                | 79.5                      | -                        |
| 1984             | 11            | 83.0                              | -                                  | 0.1                                | -                              | 82.9                                         | 9,115                     | 9.1                                | 82.9                      | -                        |
| 1985             | 12            | 88.5                              | -                                  | -                                  | -                              | 88.5                                         | 9,378                     | 9.4                                | 88.5                      | -                        |
| 1986             | 13            | 89.6                              | -                                  | -                                  | -                              | 89.6                                         | 9,647                     | 9.3                                | 89.6                      | -                        |
| 1987             | 14            | 92.4                              | -                                  | -                                  | -                              | 92.4                                         | 9,923                     | 9.3                                | 92.4                      | -                        |
| Pronostico       |               | *8                                |                                    |                                    |                                |                                              |                           | *9                                 |                           |                          |
| 2000             | 27            | 99.00                             | -                                  | -                                  | -                              | 99.0                                         | 13,939                    | 9.70                               | 135.0                     | -36.0                    |
| 2005             | 32            | 103.00                            | -                                  | -                                  | -                              | 103.0                                        | 15,509                    | 9.80                               | 152.0                     | -49.0                    |
| 2010             | 37            | 106.00                            | -                                  | -                                  | -                              | 106.0                                        | 17,099                    | 9.90                               | 169.0                     | -63.0                    |
| 2015             | 42            | 109.00                            | -                                  | -                                  | -                              | 109.0                                        | 18,689                    | 10.00                              | 187.0                     | -78.0                    |
| 2020             | 47            | 112.00                            | -                                  | -                                  | -                              | 112.0                                        | 20,279                    | 10.00                              | 203.0                     | -91.0                    |

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (42/46)

| Carne de Porcinos |               |                        |                         |                         |                        |                                   |                   |                           |                    |
|-------------------|---------------|------------------------|-------------------------|-------------------------|------------------------|-----------------------------------|-------------------|---------------------------|--------------------|
| Años              | Años en Orden | Oferta Interna         |                         |                         |                        | Demanda Interna                   |                   |                           | *7 Balance         |
|                   |               | *1 Producción (1.000t) | *2 Importación (1.000t) | *2 Exportación (1.000t) | Desperdicio*3 (1.000t) | Disponibilidad Consumo*4 (1.000t) | Población (1.000) | Consumo per Capita*5 (kg) | *6 Demanda (1.000) |
| Actual            |               | (1)                    | (2)                     | (3)                     | (4)                    | (5)                               | (6)               | (7)                       | (8)                |
| 1970              |               | *                      | *                       | *                       | *                      | *                                 | 6,051             | *                         | *                  |
| 1971              |               | *                      | *                       | *                       | *                      | *                                 | 6,240             | *                         | *                  |
| 1972              |               | *                      | *                       | *                       | *                      | *                                 | 6,432             | *                         | *                  |
| 1973              |               | *                      | *                       | *                       | *                      | *                                 | 6,629             | *                         | *                  |
| 1974              | 1             | 18.3                   | -                       | -                       | -                      | 18.3                              | 6,829             | 2.7                       | 18.3               |
| 1975              | 2             | 15.4                   | -                       | -                       | -                      | 15.4                              | 7,035             | 2.2                       | 15.4               |
| 1976              | 3             | 16.7                   | -                       | -                       | -                      | 16.7                              | 7,243             | 2.3                       | 16.7               |
| 1977              | 4             | 17.8                   | -                       | -                       | -                      | 17.8                              | 7,455             | 2.4                       | 17.8               |
| 1978              | 5             | 20.0                   | -                       | -                       | -                      | 20.0                              | 7,671             | 2.6                       | 20.0               |
| 1979              | 6             | 22.0                   | -                       | -                       | -                      | 22.0                              | 7,893             | 2.8                       | 22.0               |
| 1980              | 7             | 22.9                   | -                       | -                       | -                      | 22.9                              | 8,123             | 2.8                       | 22.9               |
| 1981              | 8             | 23.4                   | -                       | -                       | -                      | 23.4                              | 8,361             | 2.8                       | 23.4               |
| 1982              | 9             | 24.8                   | -                       | -                       | -                      | 24.8                              | 8,606             | 2.9                       | 24.8               |
| 1983              | 10            | 22.8                   | -                       | -                       | -                      | 22.8                              | 8,857             | 2.6                       | 22.8               |
| 1984              | 11            | 21.4                   | -                       | -                       | -                      | 21.4                              | 9,115             | 2.3                       | 21.4               |
| 1985              | 12            | 20.1                   | -                       | -                       | -                      | 20.1                              | 9,378             | 2.1                       | 20.1               |
| 1986              | 13            | 22.6                   | -                       | -                       | -                      | 22.6                              | 9,647             | 2.3                       | 22.6               |
| 1987              | 14            | 22.7                   | -                       | -                       | -                      | 22.7                              | 9,923             | 2.3                       | 22.7               |
| Pronostico        |               | *8                     |                         |                         |                        |                                   |                   | *9                        |                    |
| 2000              | 27            | 25.0                   | -                       | -                       | -                      | 25.0                              | 13,939            | 2.5                       | 35.0               |
| 2005              | 32            | 26.0                   | -                       | -                       | -                      | 26.0                              | 15,509            | 2.5                       | 39.0               |
| 2010              | 37            | 26.0                   | -                       | -                       | -                      | 26.0                              | 17,099            | 2.5                       | 43.0               |
| 2015              | 42            | 27.0                   | -                       | -                       | -                      | 27.0                              | 18,689            | 2.5                       | 47.0               |
| 2020              | 47            | 27.0                   | -                       | -                       | -                      | 27.0                              | 20,279            | 2.5                       | 51.0               |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1987.

- MAG, Estadísticas Pecuarias del Ecuador 1950-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986. \*6 1974-1986: (8) = (5)

\*3 Desperdicio: Insignificante 2000-2020: (8) = (6) x (7)

\*4 (5) = (1) + (2) - (3) - (4) \*7 (9) = (5) - (8)

\*5 1974-1986: (7) = (5)/(6)

\*8  $y = a * x^b$   $a = 16,0$   $b = 0,138880$   $r = 0,76$   $x =$  Años en orden  $y =$  Producción

\*9 Se aplicaron cifras promedio para el periodo 1974 a 1987, para el consumo futuro, por razones de tendencia estacionaria.

$y = a + bx$   $a = 2,61$   $b = -0,0138$   $x =$  Años en orden  $y =$  Consumo per capita

$r = 0,22$  (Nivel de confianza 5%, df. = 12:  $r > 0,532$  No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (43/46)

| Carne de Pollo |               |                             |                              |                              |                     |                                  |                 |                         |                    |         |
|----------------|---------------|-----------------------------|------------------------------|------------------------------|---------------------|----------------------------------|-----------------|-------------------------|--------------------|---------|
| Años           | Años en Orden | Oferta Interna              |                              |                              |                     | Demanda Interna                  |                 |                         |                    | Balance |
|                |               | *1                          | *2                           | *2                           | Desper-             | Disponi-                         | Pobla-          | Consumo                 | *6                 |         |
|                |               | Produc-<br>ción<br>(1.000t) | Impor-<br>tación<br>(1.000t) | Expor-<br>tación<br>(1.000t) | dicio*3<br>(1.000t) | bilidad<br>Consumo*4<br>(1.000t) | ción<br>(1.000) | per<br>Capita*5<br>(kg) | Demanda<br>(1.000) |         |
|                |               |                             |                              |                              |                     |                                  |                 |                         |                    |         |
|                |               | (1)                         | (2)                          | (3)                          | (4)                 | (5)                              | (6)             | (7)                     | (8)                | (9)     |
| Actual         |               | *                           | *                            | *                            | *                   | *                                | 5,162           | *                       | *                  | *       |
| 1965           |               | *                           | *                            | *                            | *                   | *                                | 5,330           | *                       | *                  | *       |
| 1966           |               | *                           | *                            | *                            | *                   | *                                | 5,503           | *                       | *                  | *       |
| 1967           |               | *                           | *                            | *                            | *                   | *                                | 5,682           | *                       | *                  | *       |
| 1968           |               | *                           | *                            | *                            | *                   | *                                | 5,865           | *                       | *                  | *       |
| 1969           |               | 7.1                         | -                            | -                            | -                   | 7.1                              | 6,051           | 1.2                     | 7.1                | -       |
| 1970           | 1             | 8.7                         | -                            | -                            | -                   | 8.7                              | 6,240           | 1.4                     | 8.7                | -       |
| 1971           | 2             | 12.5                        | -                            | -                            | -                   | 12.5                             | 6,432           | 1.9                     | 12.5               | -       |
| 1972           | 3             | 13.0                        | -                            | -                            | -                   | 13.0                             | 6,629           | 2.0                     | 13.0               | -       |
| 1973           | 4             | 13.8                        | -                            | -                            | -                   | 13.8                             | 6,829           | 2.0                     | 13.8               | -       |
| 1974           | 5             | 14.8                        | -                            | -                            | -                   | 14.8                             | 7,035           | 2.1                     | 14.8               | -       |
| 1975           | 6             | 17.1                        | -                            | -                            | -                   | 17.1                             | 7,243           | 2.4                     | 17.1               | -       |
| 1976           | 7             | 22.8                        | -                            | -                            | -                   | 22.8                             | 7,455           | 3.1                     | 22.8               | -       |
| 1977           | 8             | 27.7                        | -                            | -                            | -                   | 27.7                             | 7,671           | 3.6                     | 27.7               | -       |
| 1978           | 9             | 30.8                        | -                            | -                            | -                   | 30.8                             | 7,893           | 3.9                     | 30.8               | -       |
| 1979           | 10            | 36.5                        | -                            | -                            | -                   | 36.5                             | 8,123           | 4.5                     | 36.5               | -       |
| 1980           | 11            | 41.5                        | -                            | -                            | -                   | 41.5                             | 8,361           | 5.0                     | 41.5               | -       |
| 1981           | 12            | 45.7                        | -                            | -                            | -                   | 45.7                             | 8,606           | 5.3                     | 45.7               | -       |
| 1982           | 13            | 30.5                        | -                            | -                            | -                   | 30.5                             | 8,857           | 3.4                     | 30.5               | -       |
| 1983           | 14            | 36.7                        | -                            | -                            | -                   | 36.7                             | 9,115           | 4.0                     | 36.7               | -       |
| 1984           | 15            | 43.9                        | -                            | -                            | -                   | 43.9                             | 9,378           | 4.7                     | 43.9               | -       |
| 1985           | 16            | 54.5                        | -                            | -                            | -                   | 54.5                             | 9,647           | 5.6                     | 54.5               | -       |
| 1986           | 17            | 52.3                        | -                            | -                            | -                   | 52.3                             | 9,923           | 5.3                     | 52.3               | -       |
| 1987           | 18            |                             |                              |                              |                     |                                  |                 |                         |                    |         |
| Pronostico     |               |                             |                              |                              |                     |                                  |                 |                         |                    |         |
| 2000           | 31            | 70.0                        | -                            | -                            | -                   | 70.0                             | 13,939          | 6.9                     | 96.0               | -26.0   |
| 2005           | 36            | 78.0                        | -                            | -                            | -                   | 78.0                             | 15,509          | 7.5                     | 116.0              | -38.0   |
| 2010           | 41            | 86.0                        | -                            | -                            | -                   | 86.0                             | 17,099          | 8.1                     | 139.0              | -53.0   |
| 2015           | 46            | 94.0                        | -                            | -                            | -                   | 94.0                             | 18,689          | 8.6                     | 161.0              | -67.0   |
| 2020           | 51            | 101.0                       | -                            | -                            | -                   | 101.0                            | 20,279          | 9.2                     | 187.0              | -86.0   |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1987.

- MAG, Estadísticas Pecuarias del Ecuador 1950-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Desperdicio: Insignificante

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$   $a = 5,20$   $b = 0,755328$   $r = 0,96$

\*5 1970-1986: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1970-1986: (8) = (5) \*9  $y = a * x^b$   $a = 0,97$   $b = 0,569875$   $r = 0,94$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo}$

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (44/46)

| Huevos     |               |                              |                               |                               |                                     |                                      |                      |                              |                          |                           |
|------------|---------------|------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------------------|----------------------|------------------------------|--------------------------|---------------------------|
| Años       | Años en Orden | Oferta Interna               |                               |                               |                                     | Demanda Interna                      |                      |                              |                          | *7<br>Balance<br>(1.000t) |
|            |               | *1<br>Producción<br>(1.000t) | *2<br>Importación<br>(1.000t) | *2<br>Exportación<br>(1.000t) | Semilla y Desperdicio*3<br>(1.000t) | Disponibilidad Consumo*4<br>(1.000t) | Población<br>(1.000) | Consumo per Capita*5<br>(kg) | *6<br>Demanda<br>(1.000) |                           |
|            |               | (1)                          | (2)                           | (3)                           | (4)                                 | (5)                                  | (6)                  | (7)                          | (8)                      |                           |
| Actual     |               | (1)                          | (2)                           | (3)                           | (4)                                 | (5)                                  | (6)                  | (7)                          | (8)                      | (9)                       |
| 1965       |               | *                            | *                             | *                             | *                                   | *                                    | 5,162                | *                            | *                        | *                         |
| 1966       |               | *                            | *                             | *                             | *                                   | *                                    | 5,330                | *                            | *                        | *                         |
| 1967       |               | *                            | *                             | *                             | *                                   | *                                    | 5,503                | *                            | *                        | *                         |
| 1968       |               | *                            | *                             | *                             | *                                   | *                                    | 5,682                | *                            | *                        | *                         |
| 1969       |               | *                            | *                             | *                             | *                                   | *                                    | 5,865                | *                            | *                        | *                         |
| 1970       | 1             | 13.0                         | -                             | -                             | 1.8                                 | 11.2                                 | 6,051                | 1.9                          | 11.2                     | -                         |
| 1971       | 2             | 12.9                         | -                             | -                             | 1.8                                 | 11.1                                 | 6,240                | 1.8                          | 11.1                     | -                         |
| 1972       | 3             | 19.6                         | -                             | -                             | 2.7                                 | 16.9                                 | 6,432                | 2.6                          | 16.9                     | -                         |
| 1973       | 4             | 18.4                         | -                             | -                             | 2.6                                 | 15.8                                 | 6,629                | 2.4                          | 15.8                     | -                         |
| 1974       | 5             | 19.5                         | -                             | -                             | 2.7                                 | 16.8                                 | 6,829                | 2.5                          | 16.8                     | -                         |
| 1975       | 6             | 20.9                         | -                             | -                             | 2.9                                 | 18.0                                 | 7,035                | 2.6                          | 18.0                     | -                         |
| 1976       | 7             | 24.2                         | -                             | -                             | 3.4                                 | 20.8                                 | 7,243                | 2.9                          | 20.8                     | -                         |
| 1977       | 8             | 32.4                         | -                             | -                             | 4.5                                 | 27.9                                 | 7,455                | 3.7                          | 27.9                     | -                         |
| 1978       | 9             | 34.7                         | 0.3                           | -                             | 4.9                                 | 30.1                                 | 7,671                | 3.9                          | 30.1                     | -                         |
| 1979       | 10            | 39.1                         | 0.4                           | -                             | 5.5                                 | 34.0                                 | 7,893                | 4.3                          | 34.0                     | -                         |
| 1980       | 11            | 44.8                         | 0.2                           | -                             | 6.3                                 | 38.7                                 | 8,123                | 4.8                          | 38.7                     | -                         |
| 1981       | 12            | 45.2                         | 0.1                           | -                             | 6.3                                 | 39.0                                 | 8,361                | 4.7                          | 39.0                     | -                         |
| 1982       | 13            | 49.4                         | 0.1                           | -                             | 6.9                                 | 42.6                                 | 8,606                | 5.0                          | 42.6                     | -                         |
| 1983       | 14            | 36.7                         | -                             | -                             | 5.1                                 | 31.6                                 | 8,857                | 3.6                          | 31.6                     | -                         |
| 1984       | 15            | 39.6                         | -                             | -                             | 5.5                                 | 34.1                                 | 9,115                | 3.7                          | 34.1                     | -                         |
| 1985       | 16            | 43.1                         | -                             | -                             | 6.0                                 | 37.1                                 | 9,378                | 4.0                          | 37.1                     | -                         |
| 1986       | 17            | 51.6                         | -                             | -                             | 7.2                                 | 44.4                                 | 9,647                | 4.6                          | 44.4                     | -                         |
| 1987       | 18            | 45.3                         | -                             | -                             | 6.3                                 | 39.0                                 | 9,923                | 3.9                          | 39.0                     | -                         |
| Pronostico |               | *8                           |                               |                               |                                     |                                      |                      | *9                           |                          |                           |
| 2000       | 31            | 64.0                         | -                             | -                             | 9.0                                 | 55.0                                 | 13,939               | 5.5                          | 77.0                     | -22.0                     |
| 2005       | 36            | 70.0                         | -                             | -                             | 10.0                                | 60.0                                 | 15,509               | 5.8                          | 90.0                     | -30.0                     |
| 2010       | 41            | 75.0                         | -                             | -                             | 11.0                                | 64.0                                 | 17,099               | 6.1                          | 104.0                    | -40.0                     |
| 2015       | 46            | 79.0                         | -                             | -                             | 11.0                                | 68.0                                 | 18,689               | 6.3                          | 118.0                    | -50.0                     |
| 2020       | 51            | 84.0                         | -                             | -                             | 12.0                                | 72.0                                 | 20,279               | 6.6                          | 134.0                    | -62.0                     |

\*1 Fuente: - MAG, Estimación de la Superficie Cosechada y de la Producción Agrícola del Ecuador, 1962-1987.

- MAG, Estadísticas Pecuarias del Ecuador 1950-1987.

\*2 Fuente: FAO, Anuario Comercial, 1974-1986.

\*3 Semilla y desperdicio: 14% of (1) and (2)

Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984.

\*4 (5) = (1) + (2) - (3) - (4) \*8  $y = a * x^b$   $a = 10,08$   $b = 0,539212$   $r = 0,94$

\*5 1970-1986: (7) = (5)/(6)  $x = \text{Años en orden}$   $y = \text{Producción}$

\*6 1970-1986: (8) = (5) \*9  $y = a * x^b$   $a = 1,64$   $b = 0,352689$   $r = 0,89$

2000-2020: (8) = (6) x (7)  $x = \text{Años en orden}$   $y = \text{Consumo}$

\*7 (9) = (5) - (8)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (45/46)

(Unidad: Lts.)

| Leche      |               |                        |                              |                           |                         |                        |                                   |                   |                             |                     |
|------------|---------------|------------------------|------------------------------|---------------------------|-------------------------|------------------------|-----------------------------------|-------------------|-----------------------------|---------------------|
| Años       | Años en Orden | Oferta Interna         |                              |                           |                         |                        | Demanda Interna                   |                   |                             | *7 Balance          |
|            |               | *1 Producción (Millon) | *1 Consumo Terneros (Millon) | *1*2 Importación (Millon) | *1 Exportación (Millon) | Desperdicio*3 (Millon) | Disponibilidad Consumo*4 (Millon) | Población (1.000) | Consumo per Capita*5 (Lts.) | *6 Demanda (Millon) |
| Actual     |               | (1)                    | (2)                          | (3)                       | (4)                     | (5)                    | (6)                               | (7)               | (8)                         | (9)                 |
| 1970       |               | *                      | *                            | *                         | *                       | *                      | *                                 | 6,051             | *                           | *                   |
| 1971       |               | *                      | *                            | *                         | *                       | *                      | *                                 | 6,240             | *                           | *                   |
| 1972       |               | *                      | *                            | *                         | *                       | *                      | *                                 | 6,432             | *                           | *                   |
| 1973       |               | *                      | *                            | *                         | *                       | *                      | *                                 | 6,629             | *                           | *                   |
| 1974       | 1             | 743                    | 238                          | 16                        | -                       | -                      | 521                               | 6,829             | 76.3                        | 521                 |
| 1975       | 2             | 764                    | 246                          | 11                        | -                       | -                      | 529                               | 7,035             | 75.2                        | 529                 |
| 1976       | 3             | 785                    | 251                          | 28                        | -                       | -                      | 562                               | 7,243             | 77.6                        | 562                 |
| 1977       | 4             | 823                    | 263                          | 53                        | -                       | -                      | 613                               | 7,455             | 82.2                        | 613                 |
| 1978       | 5             | 871                    | 279                          | 56                        | -                       | -                      | 648                               | 7,671             | 84.5                        | 648                 |
| 1979       | 6             | 878                    | 281                          | 84                        | -                       | -                      | 681                               | 7,893             | 86.3                        | 681                 |
| 1980       | 7             | 897                    | 287                          | 74                        | -                       | -                      | 684                               | 8,123             | 84.2                        | 684                 |
| 1981       | 8             | 916                    | 293                          | 33                        | -                       | -                      | 656                               | 8,361             | 78.5                        | 656                 |
| 1982       | 9             | 955                    | 306                          | 34                        | -                       | -                      | 683                               | 8,606             | 79.4                        | 683                 |
| 1983       | 10            | 970                    | 310                          | 22                        | -                       | -                      | 682                               | 8,857             | 77.0                        | 682                 |
| 1984       | 11            | 989                    | 316                          | 21                        | -                       | -                      | 694                               | 9,115             | 76.1                        | 694                 |
| 1985       | 12            | 1,040                  | 333                          | 53                        | -                       | -                      | 760                               | 9,378             | 81.0                        | 760                 |
| 1986       | 13            | 1,092                  | 349                          | 22                        | -                       | -                      | 765                               | 9,647             | 79.3                        | 765                 |
| 1987       | 14            | 1,129                  | 362                          | 25                        | -                       | -                      | 792                               | 9,923             | 79.8                        | 792                 |
| Pronostico |               | *8                     |                              |                           |                         |                        |                                   | *9                |                             |                     |
| 2000       | 27            | 1,470                  | 470                          | -                         | -                       | -                      | 1,000                             | 13,939            | 80.0                        | 1,120               |
| 2005       | 32            | 1,610                  | 520                          | -                         | -                       | -                      | 1,090                             | 15,509            | 80.0                        | 1,240               |
| 2010       | 37            | 1,750                  | 560                          | -                         | -                       | -                      | 1,190                             | 17,099            | 80.0                        | 1,370               |
| 2015       | 42            | 1,890                  | 600                          | -                         | -                       | -                      | 1,290                             | 18,689            | 80.0                        | 1,500               |
| 2020       | 47            | 2,030                  | 650                          | -                         | -                       | -                      | 1,380                             | 20,279            | 80.0                        | 1,620               |

\*1 Fuente: MAG, Estadísticas Pecuarias del Ecuador 1950-1987.

Consumo terneros: 32% de producción

\*2 1 kg de leche en polvo = 10 lts. de leche.

\*3 Derrochar: Insignificante (Fuente: FAO, Hoja de Balance Nutricional, 1979-1981 Promedio, 1984)

\*4 (6) = (1) - (2) + (3) - (4) - (5)

\*6 1974-1987: (9) = (6)

\*5 1974-1987: (8) = (6)/(7)

2000-2020: (9) = (7) x (8)

\*7 (10) = (6) - (9)

\*8  $y = a + bx$   $a = 706$ ,  $b = 28,2$   $r = 0,99$   $x = \text{Año en Orden}$   $y = \text{Producción}$

\*9 Se aplicaron cifras promedio para el periodo 1974 a 1987, como para producción futura, por razones de tendencia estacionaria

$y = a * x^b$   $a = 77,8$   $b = 0,013166$   $x = \text{Año en Orden}$   $y = \text{Producción}$

$r = 0,24$  (Nivel de confianza 5%, df. = 12:  $r > 0,532$  No correlación)

Tabla 4.1 PRONOSTICO DE OFERTA Y DEMANDA - TOTAL PAIS (46/46)

(Unidad: 1.000t)

| Años       | *1<br>N | Higuerilla | N  | Abacá | N  | Cabuya | N  | Cacao<br>en Grano | N | Población<br>Vacunos |
|------------|---------|------------|----|-------|----|--------|----|-------------------|---|----------------------|
| Actual     |         |            |    |       |    |        |    |                   |   | (Cabeza/ha)          |
| 1962       | 1       | 21.76      |    | -     |    | -      |    | 43.85             |   | *                    |
| 1963       | 2       | 20.30      |    | -     |    | -      |    | 44.79             |   | *                    |
| 1964       | 3       | 23.79      |    | -     |    | -      |    | 34.01             |   | *                    |
| 1965       | 4       | 24.47      |    | -     |    | -      |    | *                 |   | *                    |
| 1966       | 5       | 24.98      |    | -     |    | -      |    | *                 |   | *                    |
| 1967       | 6       | 22.66      |    | -     |    | -      |    | *                 |   | *                    |
| 1968       | 7       | 9.20       |    | -     |    | -      |    | *                 |   | *                    |
| 1969       | 8       | 23.77      | 1  | 3.50  |    | -      | 1  | 47.99             |   | *                    |
| 1970       | 9       | 16.52      | 2  | 3.60  |    | -      | 2  | 53.58             |   | *                    |
| 1971       | 10      | 34.70      | 3  | 4.50  |    | -      | 3  | 48.74             |   | *                    |
| 1972       | 11      | 23.15      | 4  | 4.38  |    | -      | 4  | 66.82             |   | *                    |
| 1973       | 12      | 51.71      | 5  | 6.56  |    | -      | 5  | 62.44             |   | *                    |
| 1974       | 13      | 39.06      | 6  | 9.49  |    | -      | 6  | 90.72             |   | *                    |
| 1975       | 14      | 3.39       | 7  | 9.91  |    | -      | 7  | 73.72             |   | *                    |
| 1976       | 15      | 13.20      | 8  | 13.17 |    | -      | 8  | 56.38             |   | *                    |
| 1977       | 16      | 9.65       | 9  | 16.55 | 1  | 3.52   | 9  | 72.12             |   | *                    |
| 1978       | 17      | 7.21       | 10 | 10.69 | 2  | 3.61   | 10 | 72.81             | 1 | 0.82                 |
| 1979       | 18      | 9.10       | 11 | 10.69 | 3  | 4.49   | 11 | 77.41             | 2 | 0.73                 |
| 1980       | 19      | 6.08       | 12 | 11.05 | 4  | 6.08   | 12 | 91.22             | 3 | 0.73                 |
| 1981       | 20      | 3.92       | 13 | 9.24  | 5  | 5.99   | 13 | 80.46             | 4 | 0.74                 |
| 1982       | 21      | 2.53       | 14 | 7.10  | 6  | 7.77   | 14 | 96.95             | 5 | 0.72                 |
| 1983       | 22      | 2.29       | 15 | 7.60  | 7  | 8.21   | 15 | 45.00             | 6 | 0.75                 |
| 1984       | 23      | 1.90       | 16 | 18.32 | 8  | 6.30   | 16 | 48.67             | 7 | 0.82                 |
| 1985       | 24      | 1.67       | 17 | 9.96  | 9  | 6.08   | 17 | 130.77            | 8 | 0.84                 |
| 1986       | 25      | 1.75       | 18 | 9.92  | 10 | 3.22   | 18 | 89.91             |   | *                    |
| 1987       | 26      | 2.52       |    | *     | 11 | 4.25   |    | *                 |   | *                    |
| Pronostico |         | *2         |    | *3    |    | *4*7   |    | *5                |   | *6*7                 |
| 2000       | 39      | 3.20       | 32 | 16.40 | 24 | 5.40   | 32 | 91.00             |   | 0.80                 |
| 2005       | 44      | 2.90       | 37 | 17.60 | 29 | 5.40   | 37 | 94.00             |   | 0.80                 |
| 2010       | 49      | 2.70       | 42 | 18.60 | 34 | 5.40   | 42 | 96.00             |   | 0.80                 |
| 2015       | 54      | 2.50       | 47 | 19.70 | 39 | 5.40   | 47 | 98.00             |   | 0.80                 |
| 2020       | 59      | 2.30       | 52 | 20.60 | 44 | 5.40   | 52 | 100.00            |   | 0.80                 |

\*1 Años en orden

 \*2  $y = a * x^b$   $a = 70,7921$   $b = -0,843063$   $r = 0,65$ 

 \*3  $y = a * x^b$   $a = 3,2315$   $b = 0,468872$   $r = 0,78$ 

 \*4  $y = a * x^b$   $a = 3,9678$   $b = 0,165487$   $r = 0,38$ 

 (Nivel de confianza 5%, df. = 9;  $r > 0.602$  no correlación)

 \*5  $y = a * x^b$   $a = 47,59$   $b = 0,188022$   $r = 0,51$ 

 \*6  $y = a + bx$   $a = 0,0075$   $b = 0,735$   $r = 0,37$ 

 (Nivel de confianza 5%, df. = 9;  $r > 0.602$  no correlación)

\*7 Se aplicaron cifras promedio para producción futura, en vista de tendencias estacionaria

 Nota:  $x$  = Años en orden  $y$  = Producción

 Para estos 4 cultivos, el análisis fue realizado solo para efectos de proyección,  
a causa de falta de datos

Tabla 4.2 OFERTA INTERNA PROYECTADA NECESARIA PARA AUTOABASTECIMIENTO DEL PAIS (1/2)

|                          | Demanda Interna*6 |       |         | Factores de<br>Conversion*1 | Oferta Interna*2 |         |         |
|--------------------------|-------------------|-------|---------|-----------------------------|------------------|---------|---------|
|                          | 2000              | 2010  | 2020    |                             | 2000             | 2010    | 2020    |
| GRANOS Y CEREALES        |                   |       |         |                             |                  |         |         |
| (1) Arroz cáscara        | 739.0             | 992.0 | 1,257.0 | 12                          | 840.0            | 1,127.0 | 1,428.0 |
| (2) Frejol               | 37.6              | 43.0  | 47.0    | 14                          | 44.0             | 50.0    | 55.0    |
| (3) Haba                 | 7.0               | 6.8   | 6.1     | 20                          | 8.8              | 8.5     | 7.6     |
| (4) Cebada               | 49.0              | 53.0  | 57.0    | 17                          | 59.0             | 64.0    | 69.0    |
| (5) Maíz                 | 335.0             | 410.0 | 487.0   | 37                          | 532.0            | 651.0   | 773.0   |
| (6) Trigo                | 432.0             | 547.0 | 669.0   | 14                          | 502.0            | 636.0   | 778.0   |
| TUBERCULOS Y RAICES      |                   |       |         |                             |                  |         |         |
| (7) Camote               | 4.2               | 3.4   | 4.1     | 33                          | 6.3              | 5.1     | 6.1     |
| (8) Papa                 | 516.0             | 598.0 | 669.0   | 26                          | 697.0            | 808.0   | 904.0   |
| (9) Yuca                 | 223.0             | 256.0 | 284.0   | 37                          | 354.0            | 406.0   | 451.0   |
| HORTALIZAS               |                   |       |         |                             |                  |         |         |
| (10) Ajo                 | 2.0               | 2.1   | 2.2     | 5                           | 2.0              | 2.0     | 2.0     |
| (11) Cebolla             | 36.0              | 34.0  | 32.0    | 15                          | 42.0             | 40.0    | 38.0    |
| (12) Col                 | 32.0              | 32.0  | 34.0    | 17                          | 39.0             | 39.0    | 41.0    |
| (13) Lechuga             | 7.0               | 6.8   | 6.1     | 17                          | 8.0              | 8.0     | 7.0     |
| (14) Melón               | 15.3              | 22.2  | 28.4    | 14                          | 18.0             | 26.0    | 33.0    |
| (15) Pepinillo           | 7.0               | 8.5   | 10.1    | 11                          | 8.0              | 10.0    | 11.0    |
| (16) Pimiento            | 16.7              | 29.1  | 42.6    | 10                          | 18.6             | 32.3    | 47.3    |
| (17) Sandía              | 78.1              | 118.0 | 166.3   | 11                          | 88.0             | 133.0   | 187.0   |
| (18) Tomate              | 36.2              | 39.3  | 42.6    | 16                          | 43.0             | 47.0    | 51.0    |
| (19) Zapallo             | 27.9              | 34.2  | 40.6    | 15                          | 33.0             | 40.0    | 48.0    |
| FRUTAS                   |                   |       |         |                             |                  |         |         |
| (20) Aguacate            | 39.0              | 44.5  | 50.7    | 10                          | 43.0             | 49.0    | 56.0    |
| (21) Banano              | 138.0             | 140.0 | 144.0   | 83                          | 812.0            | 824.0   | 847.0   |
| (export)                 | -                 | -     | -       | -                           | 1,000.0          | 1,000.0 | 1,000.0 |
| (22) Guaba               | 14.0              | 17.0  | 20.0    | 10                          | 16.0             | 19.0    | 22.0    |
| (23) Limón               | 27.9              | 34.2  | 40.6    | 12                          | 32.0             | 39.0    | 46.0    |
| (24) Mandarina y Naranja | 664.0             | 857.0 | 1,059.0 | 10                          | 738.0            | 952.0   | 1,177.0 |
| (25) Mango               | 29.3              | 35.9  | 42.6    | 32                          | 43.0             | 53.0    | 63.0    |
| (26) Papaya              | 44.6              | 58.1  | 71.0    | 14                          | 52.0             | 68.0    | 83.0    |
| (27) Piña                | 36.2              | 35.9  | 36.5    | 38                          | 58.0             | 58.0    | 59.0    |
| (28) Plátano             | 610.0             | 700.0 | 830.0   | 53                          | 1,300.0          | 1,490.0 | 1,770.0 |
| (29) Toronja             | 78.0              | 96.0  | 114.0   | 10                          | 87.0             | 107.0   | 127.0   |
| (30) Uva                 | 0.42              | 0.34  | 0.41    | 20                          | 0.53             | 0.43    | 0.51    |

\*1 Factores de conversión de la demanda interna a oferta interna \*3 Insignificante

\*2 Oferta interna proyectada necesaria para autoabastecimiento del país incluyendo semillas, desperdicios, pérdidas, etc. \*4 Ver tabla 4.1 (46/46).

\*5 Incluyendo lo exportado

\*6 Ver tabla 4.1

Tabla 4.2 OFERTA INTERNA PROYECTADA NECESARIA PARA AUTOABASTECIMIENTO DEL PAIS (2/2)

|                         | Demanda Interna*6 |         |         | Factores de<br>Conversion*1<br>(%) | Oferta Interna*2 |         |         |
|-------------------------|-------------------|---------|---------|------------------------------------|------------------|---------|---------|
|                         | 2000              | 2010    | 2020    |                                    | 2000             | 2010    | 2020    |
| OLEAGINOSAS             |                   |         |         |                                    |                  |         |         |
| (31) Ajonjolí           | 0.42              | 0.34    | 0.41    | 5                                  | 0.44             | 0.36    | 0.43    |
| (32) Aceite de Coco     | 15.3              | 18.8    | 22.3    | 86.5                               | 113.0            | 139.0   | 165.0   |
| (33) Higuierilla*4      | -                 | -       | -       | -                                  | 3.2              | 2.7     | 2.3     |
| (34) Aceite de Palma    | 153.0             | 222.0   | 284.0   | 79.3                               | 740.0            | 1,070.0 | 1,370.0 |
| (35) Maní en Grano      | 15.3              | 18.8    | 22.3    | 14                                 | 18.0             | 22.0    | 26.0    |
| (36) Soya en Grano      | 460.0             | 598.0   | 750.0   | 6                                  | 489.0            | 636.0   | 798.0   |
| FIBRAS                  |                   |         |         |                                    |                  |         |         |
| (37) Abacá*4            | -                 | -       | -       | -                                  | 16.4             | 16.4    | 16.4    |
| (38) Algodón en rama    | 43.2              | 53.0    | 62.9    | 5                                  | 45.0             | 56.0    | 66.0    |
| (39) Cabuya*4           | -                 | -       | -       | -                                  | 5.4              | 5.4     | 5.4     |
| BEBIDAS                 |                   |         |         |                                    |                  |         |         |
| (40) Cacao en grano*4*5 | -                 | -       | -       | -                                  | 91.0             | 96.0    | 100.0   |
| (41) Café en grano      | 14.0              | 17.0    | 20.0    | 33                                 | 21.0             | 25.0    | 30.0    |
| (Export)                | -                 | -       | -       | -                                  | 85.0             | 85.0    | 85.0    |
| (42) Té                 | 18.1              | 27.4    | 38.5    | 5                                  | 19.0             | 29.0    | 41.0    |
| OTROS CULTIVOS          |                   |         |         |                                    |                  |         |         |
| (43) Achiote            | 1.3               | 1.5     | 1.8     | 5                                  | 1.4              | 1.6     | 1.9     |
| (44) Azúcar Bruto       | 420.0             | 460.0   | 530.0   | 87.6                               | 3,390.0          | 3,710.0 | 4,270.0 |
| Caña para Azucar        |                   |         |         |                                    | 3,390.0          | 3,710.0 | 4,270.0 |
| (45) Caña/otros usos    | 3,350             | 3,760   | 4,060   | 5                                  | 3,530.0          | 3,960.0 | 4,270.0 |
| (46) Marigold           | 0.14              | 0.17    | 0.20    | 5                                  | 0.15             | 0.18    | 0.21    |
| (47) Tabaco en Bruto    | 4.7               | 5.8     | 6.9     | 5                                  | 4.9              | 6.1     | 7.3     |
| GANADERIA               |                   |         |         |                                    |                  |         |         |
| (48) Carne de Bovinos   | 135.0             | 169.0   | 203.0   | *3                                 | 135.0            | 169.0   | 203.0   |
| (49) Leche (million lt) | 1,120.0           | 1,370.0 | 1,620.0 | 5                                  | 1,180.0          | 1,440.0 | 1,710.0 |

\*1 Factores de conversión de la demanda interna a oferta interna \*3 Insignificante

\*2 Oferta interna proyectada necesaria para autoabastecimiento del país incluyendo semillas, desperdicios, pérdidas, etc. \*4 Ver tabla 4.1 (46/46).

\*5 Incluyendo lo exportado

\*6 Ver tabla 4.1



Tabla 4.3 BALANCE ENTRE LA CONTRIBUCION DE LA OFERTA Y LA DEMANDA  
INTERNA DE LA PROVINCIA DE MANABI (2000-2020)

(Unidad: 1.000 t)

| Cultivos/<br>Ganaderías    | Contribución de la Provincia<br>de Manabí a la oferta<br>interna del país*1 |       |       | Producción sin el Proyecto<br>de Desarrollo de los<br>Recursos Hídricos*2 |       |       | Balance |       |        |
|----------------------------|-----------------------------------------------------------------------------|-------|-------|---------------------------------------------------------------------------|-------|-------|---------|-------|--------|
|                            | 2000                                                                        | 2010  | 2020  | 2000                                                                      | 2010  | 2020  | 2000    | 2010  | 2020   |
| <b>GRANOS Y CEREALES</b>   |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 1 Arroz cáscara            | 17.0                                                                        | 23.0  | 29.0  | 12.4                                                                      | 12.4  | 12.4  | -4.6    | -10.6 | -16.6  |
| 2 Frejol                   | 3.1                                                                         | 3.5   | 3.9   | 1.4                                                                       | 1.4   | 1.4   | -1.7    | -2.1  | -2.5   |
| 3 Haba                     | 0.1                                                                         | 0.1   | 0.1   | 1.0                                                                       | 1.0   | 1.0   | 0.9     | 0.9   | 0.9    |
| 4 Cebada                   | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 5 Maíz                     | 85.0                                                                        | 104.0 | 124.0 | 83.0                                                                      | 95.0  | 99.0  | -2.0    | -9.0  | -25.0  |
| 6 Trigo                    | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| <b>TUBERCULOS Y RAICES</b> |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 7 Camote                   | 1.5                                                                         | 1.2   | 1.5   | -                                                                         | -     | -     | -1.5    | -1.2  | -1.5   |
| 8 Papa                     | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 9 Yuca                     | 99.0                                                                        | 114.0 | 126.0 | 128.0                                                                     | 128.0 | 128.0 | 29.0    | 14.0  | 2.0    |
| <b>HORTALIZAS</b>          |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 10 Ajo                     | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 11 Cebolla                 | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 12 Col                     | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 13 Lechuga                 | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 14 Melón                   | 10.0                                                                        | 14.0  | 18.0  | 5.0                                                                       | 5.0   | 6.0   | -5.0    | -9.0  | -12.0  |
| 15 Pepinillo               | 6.1                                                                         | 7.6   | 8.4   | 3.9                                                                       | 3.9   | 3.9   | -2.2    | -3.7  | -4.5   |
| 16 Pimiento                | 6.0                                                                         | 10.3  | 15.1  | 1.7                                                                       | 1.7   | 1.7   | -4.3    | -8.6  | -13.4  |
| 17 Sandía                  | 51.0                                                                        | 77.0  | 108.0 | 18.2                                                                      | 18.2  | 18.2  | -32.8   | -58.8 | -89.8  |
| 18 Tomate                  | 5.6                                                                         | 6.1   | 6.6   | 4.9                                                                       | 5.1   | 4.6   | -0.7    | -1.0  | -2.0   |
| 19 Zapallo                 | 32.0                                                                        | 39.0  | 47.0  | 20.4                                                                      | 20.4  | 20.4  | -11.6   | -18.6 | -26.6  |
| <b>FRUTAS</b>              |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 20 Aguacate                | 3.9                                                                         | 4.4   | 5.0   | 3.6                                                                       | 4.8   | 5.1   | -0.3    | 0.4   | 0.1    |
| 21 Banano                  | 36.0                                                                        | 36.0  | 37.0  | 97.0                                                                      | 101.0 | 106.0 | 61.0    | 65.0  | 69.0   |
| 22 Guaba                   | 2.9                                                                         | 3.4   | 4.0   | 2.0                                                                       | 2.0   | 2.0   | -0.9    | -1.4  | -2.0   |
| 23 Limón                   | 10.0                                                                        | 12.0  | 14.0  | 7.4                                                                       | 8.4   | 8.4   | -2.6    | -3.6  | -5.6   |
| 24 Mandarina y Naranja     | 111.0                                                                       | 143.0 | 177.0 | 56.8                                                                      | 60.9  | 65.0  | -54.2   | -82.1 | -112.0 |
| 25 Mango                   | 9.0                                                                         | 11.0  | 13.0  | 5.9                                                                       | 5.4   | 4.4   | -3.1    | -5.6  | -8.6   |
| 26 Papaya                  | 12.0                                                                        | 16.0  | 19.0  | 2.8                                                                       | 2.6   | 2.2   | -9.2    | -13.4 | -16.8  |
| 27 Piña                    | 2.9                                                                         | 2.9   | 3.0   | 4.9                                                                       | 4.9   | 4.9   | 2.0     | 2.0   | 1.9    |
| 28 Plátano                 | 364.0                                                                       | 417.0 | 496.0 | 298.0                                                                     | 322.0 | 342.0 | -66.0   | -95.0 | -154.0 |
| 29 Toronja                 | 18.0                                                                        | 22.0  | 27.0  | 6.4                                                                       | 5.6   | 5.2   | -11.6   | -16.4 | -21.8  |
| 30 Uva                     | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| <b>OLEAGINOSAS</b>         |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 31 Ajonjolí                | 0.02                                                                        | 0.01  | 0.02  | -                                                                         | -     | -     | -0.02   | -0.01 | -0.02  |
| 32 Coco                    | 23.0                                                                        | 28.0  | 33.0  | 30.0                                                                      | 39.6  | 49.2  | 7.0     | 11.6  | 16.2   |
| 33 Higuera                 | 2.0                                                                         | 1.7   | 1.4   | 2.3                                                                       | 1.7   | 1.5   | 0.3     | 0.0   | 0.1    |
| 34 Palma                   | 22.0                                                                        | 32.0  | 41.0  | 14.0                                                                      | 15.0  | 16.0  | -8.0    | -17.0 | -25.0  |
| 35 Maní en Grano           | 6.8                                                                         | 8.4   | 9.9   | 5.3                                                                       | 5.7   | 5.7   | -1.5    | -2.7  | -4.2   |
| 36 Soya en Grano           | 0.5                                                                         | 0.6   | 0.8   | 0.7                                                                       | 0.6   | 0.6   | 0.2     | 0.0   | -0.2   |
| <b>FIBRAS</b>              |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 37 Abacá                   | 0.03                                                                        | 0.03  | 0.03  | 0.2                                                                       | 0.2   | 0.2   | 0.2     | 0.2   | 0.2    |
| 38 Algodón en rama         | 16.0                                                                        | 20.0  | 24.0  | 6.7                                                                       | 6.8   | 6.9   | -9.3    | -13.2 | -17.1  |
| 39 Cabuya                  | 1.8                                                                         | 1.8   | 1.8   | 2.9                                                                       | 3.2   | 3.4   | 1.1     | 1.4   | 1.6    |
| <b>BEBIDAS</b>             |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 40 Cacao en grano          | 13.0                                                                        | 13.0  | 14.0  | 11.3                                                                      | 11.3  | 11.3  | -1.7    | -1.7  | -2.7   |
| 41 Café en grano           | 29.7                                                                        | 30.8  | 32.2  | 43.9                                                                      | 45.9  | 47.3  | 14.2    | 15.1  | 15.1   |
| 42 Té                      | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| <b>OTROS CULTIVOS</b>      |                                                                             |       |       |                                                                           |       |       |         |       |        |
| 43 Achiote                 | 0.8                                                                         | 0.9   | 1.0   | 0.4                                                                       | 0.4   | 0.4   | -0.4    | -0.5  | -0.6   |
| 44 Caña para azúcar        | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |
| 45 Azúcar/otros usos       | 71.0                                                                        | 79.0  | 85.0  | 45.1                                                                      | 45.1  | 45.1  | -25.9   | -33.9 | -39.9  |
| 46 Marigold                | 0.13                                                                        | 0.16  | 0.18  | 9.6                                                                       | 10.8  | 10.8  | 9.5     | 10.6  | 10.6   |
| 47 Tabaco en Bruto         | -                                                                           | -     | -     | -                                                                         | -     | -     | -       | -     | -      |

\*1 Ver tabla 4.7

\*2 Ver tabla 4.4

Tabla 4.4 PROYECCION DE LA PRODUCCION MANABITA SIN EL PROYECTO  
DE DESARROLLO DE LOS RECURSOS HIDRICOS

| Cultivos/<br>Ganaderías    | Area Cosechada*1<br>(1.000 ha) |                |                | Rendimiento Unitario*2<br>(t/ha) |       |       | Producción<br>(1.000 t) |       |       |
|----------------------------|--------------------------------|----------------|----------------|----------------------------------|-------|-------|-------------------------|-------|-------|
|                            | 2000                           | 2010           | 2020           | 2000                             | 2010  | 2020  | 2000                    | 2010  | 2020  |
| <b>GRANOS Y CEREALES</b>   |                                |                |                |                                  |       |       |                         |       |       |
| 1 Arroz cáscara            | 6.2                            | 6.2            | 6.2            | 2.0                              | 2.0   | 2.0   | 12.4                    | 12.4  | 12.4  |
| 2 Frejol                   | 1.2                            | 1.2            | 1.2            | 1.2                              | 1.2   | 1.2   | 1.4                     | 1.4   | 1.4   |
| 3 Haba                     | 0.6                            | 0.6            | 0.6            | 1.6                              | 1.6   | 1.6   | 1.0                     | 1.0   | 1.0   |
| 4 Cebada                   | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 5 Maíz                     | 59.0                           | 63.0           | 66.0           | 1.4                              | 1.5   | 1.5   | 83.0                    | 95.0  | 99.0  |
| 6 Trigo                    | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| <b>TUBERCULOS Y RAICES</b> |                                |                |                |                                  |       |       |                         |       |       |
| 7 Camote                   | -                              | -              | -              | 8.4                              | 9.5   | 10.6  | -                       | -     | -     |
| 8 Papa                     | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 9 Yuca                     | 11.6                           | 11.6           | 11.6           | 11.0                             | 11.0  | 11.0  | 128.0                   | 128.0 | 128.0 |
| <b>HORTALIZAS</b>          |                                |                |                |                                  |       |       |                         |       |       |
| 10 Ajo                     | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 11 Cebolla                 | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 12 Col                     | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 13 Lechuga                 | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 14 Melón                   | 0.5                            | 0.5            | 0.6            | 10.0                             | 10.0  | 10.0  | 5.0                     | 5.0   | 6.0   |
| 15 Pepinillo               | 0.3                            | 0.3            | 0.3            | 13.0                             | 13.0  | 13.0  | 3.9                     | 3.9   | 3.9   |
| 16 Pimiento                | 0.3                            | 0.3            | 0.3            | 5.6                              | 5.6   | 5.6   | 1.7                     | 1.7   | 1.7   |
| 17 Sandía                  | 1.3                            | 1.3            | 1.3            | 14.0                             | 14.0  | 14.0  | 18.2                    | 18.2  | 18.2  |
| 18 Tomate                  | 0.6                            | 0.7            | 0.7            | 8.2                              | 7.3   | 6.5   | 4.9                     | 5.1   | 4.6   |
| 19 Zapallo                 | 1.7                            | 1.7            | 1.7            | 12.00                            | 12.00 | 12.00 | 20.4                    | 20.4  | 20.4  |
| <b>FRUTAS</b>              |                                |                |                |                                  |       |       |                         |       |       |
| 20 Aguacate                | 0.4                            | 0.5            | 0.5            | 9.0                              | 9.6   | 10.1  | 3.6                     | 4.8   | 5.1   |
| 21 Banano                  | 4.4                            | 4.4            | 4.4            | 22.0                             | 23.0  | 24.0  | 97.0                    | 101.0 | 106.0 |
| 22 Guaba                   | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 23 Limón                   | 0.7                            | 0.8            | 0.8            | 10.5                             | 10.5  | 10.5  | 7.4                     | 8.4   | 8.4   |
| 24 Mandarina               | 1.6                            | 2.0            | 2.4            | 10.2                             | 10.2  | 10.2  | 16.3                    | 20.4  | 24.5  |
| 25 Naranja                 | 2.1                            | 2.1            | 2.1            | 19.3                             | 19.3  | 19.3  | 40.5                    | 40.5  | 40.5  |
| 26 Mango                   | 0.7                            | 0.9            | 1.1            | 8.4                              | 6.0   | 4.0   | 5.9                     | 5.4   | 4.4   |
| 27 Papaya                  | 0.2                            | 0.2            | 0.2            | 14.0                             | 13.0  | 11.0  | 2.8                     | 2.6   | 2.2   |
| 28 Piña                    | 0.3                            | 0.3            | 0.3            | 16.2                             | 16.2  | 16.2  | 4.9                     | 4.9   | 4.9   |
| 29 Plátano                 | 24.8                           | 26.8           | 28.5           | 12.0                             | 12.0  | 12.0  | 298.0                   | 322.0 | 342.0 |
| 30 Toronja                 | 0.4                            | 0.4            | 0.4            | 16.0                             | 14.0  | 13.0  | 6.4                     | 5.6   | 5.2   |
| 31 Uva                     | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| <b>OLEAGINOSAS</b>         |                                |                |                |                                  |       |       |                         |       |       |
| 32 Ajonjolí                | -                              | -              | -              | 0.6                              | 0.6   | 0.6   | -                       | -     | -     |
| 33 Coco                    | 2.5                            | 3.3            | 4.1            | 12.0                             | 12.0  | 12.0  | 30.0                    | 39.6  | 49.2  |
| 34 Higuera                 | 2.9                            | 2.4            | 2.1            | 0.8                              | 0.7   | 0.7   | 2.3                     | 1.7   | 1.5   |
| 35 Palma                   | 1.0                            | 1.0            | 1.0            | 14.0                             | 15.0  | 16.0  | 14.0                    | 15.0  | 16.0  |
| 36 Maní en Grano           | 4.4                            | 4.4            | 4.4            | 1.2                              | 1.3   | 1.3   | 5.3                     | 5.7   | 5.7   |
| 37 Soya en Grano           | 0.5                            | 0.5            | 0.5            | 1.3                              | 1.2   | 1.2   | 0.7                     | 0.6   | 0.6   |
| <b>FIBRAS</b>              |                                |                |                |                                  |       |       |                         |       |       |
| 38 Abacá                   | 0.2                            | 0.2            | 0.2            | 1.1                              | 1.1   | 1.1   | 0.2                     | 0.2   | 0.2   |
| 39 Algodón en rama         | 5.6                            | 5.2            | 4.9            | 1.2                              | 1.3   | 1.4   | 6.7                     | 6.8   | 6.9   |
| 40 Cabuya                  | 0.5                            | 0.5            | 0.5            | 5.7                              | 6.3   | 6.7   | 2.9                     | 3.2   | 3.4   |
| <b>BEBIDAS</b>             |                                |                |                |                                  |       |       |                         |       |       |
| 41 Cacao en grano          | 37.7                           | 37.7           | 37.7           | 0.30                             | 0.30  | 0.30  | 11.3                    | 11.3  | 11.3  |
| 42 Café en grano           | 129.0                          | 135.0          | 139.0          | 0.34                             | 0.34  | 0.34  | 43.9                    | 45.9  | 47.3  |
| 43 Té                      | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| <b>OTROS CULTIVOS</b>      |                                |                |                |                                  |       |       |                         |       |       |
| 44 Achiote                 | 0.9                            | 0.9            | 1.0            | 0.48                             | 0.42  | 0.38  | 0.4                     | 0.4   | 0.4   |
| 45 Caña para azúcar        | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| 46 Azúcar/otros usos       | 1.1                            | 1.1            | 1.1            | 41.0                             | 41.0  | 41.0  | 45.1                    | 45.1  | 45.1  |
| 47 Marigold                | 0.8                            | 0.9            | 0.9            | 12.0                             | 12.0  | 12.0  | 9.6                     | 10.8  | 10.8  |
| 48 Tabaco en Bruto         | -                              | -              | -              | -                                | -     | -     | -                       | -     | -     |
| <b>Total</b>               | <b>(306.0)</b>                 | <b>(318.9)</b> | <b>(328.6)</b> |                                  |       |       |                         |       |       |

\*1 Ver tabla 4.5

\*2 Ver tabla 4.6

Tabla 4.5 PRINCIPALES RUBROS AGRICOLAS - MANABI (1/4)  
(SUPERFICIE CULTIVADA)

(Unidad: ha)

| Año        | GRANOS Y CEREALES |                |             |           |              | TUBERCULOS Y RAICES |           |            |                | HORTALIZAS    |    |    |  |  |
|------------|-------------------|----------------|-------------|-----------|--------------|---------------------|-----------|------------|----------------|---------------|----|----|--|--|
|            | *1<br>N           | Arroz<br>cásca | Fréjol<br>N | Haba<br>N | Mafz<br>duro | Camote<br>N         | Yuca<br>N | Melón<br>N | Pepi-<br>nillo | Pimi-<br>ento |    |    |  |  |
| Actual     |                   |                |             |           |              |                     |           |            |                |               |    |    |  |  |
| 1962       | 1                 | 6,500          | 1 1,400     | -         | 1 14,000     | 1 3,000             | 1 11,000  | 1 300      | *              |               |    |    |  |  |
| 1963       | 2                 | 6,200          | 2 1,300     | -         | 2 10,000     | 2 1,900             | 2 10,000  | 2 200      | *              |               |    |    |  |  |
| 1964       | 3                 | 6,300          | 3 1,400     | -         | 3 12,000     | 3 1,850             | 3 10,000  | 3 300      | *              |               |    |    |  |  |
| 1965       | 4                 | 4,300          | 4 1,000     | -         | 4 11,000     | 4 1,800             | 4 9,500   | 4 300      | *              |               |    |    |  |  |
| 1966       | 5                 | 4,400          | 5 900       | -         | 5 11,300     | 5 1,500             | 5 9,600   | 5 200      | *              |               |    |    |  |  |
| 1967       | 6                 | 3,230          | 6 639       | -         | 6 25,646     | 6 876               | 6 10,015  | 6 *        | *              |               |    |    |  |  |
| 1968       | 7                 | 3,000          | 7 700       | -         | 7 7,000      | 7 900               | 7 10,000  | 7 150      | *              |               |    |    |  |  |
| 1969       | 8                 | 5,000          | 8 690       | -         | 8 25,000     | 8 1,400             | 8 20,000  | 8 -        | *              |               |    |    |  |  |
| 1970       | 9                 | 5,000          | 9 700       | -         | 9 25,000     | 9 1,400             | 9 20,000  | 9 50       | *              |               |    |    |  |  |
| 1971       | 10                | 5,000          | 10 690      | -         | 10 45,000    | 10 1,400            | 10 20,000 | 10 -       | *              |               |    |    |  |  |
| 1972       | 11                | 15,000         | 11 500      | -         | 11 40,000    | 11 2,227            | 11 15,000 | 11 400     | *              |               |    |    |  |  |
| 1973       | 12                | 13,000         | 12 500      | -         | 12 55,000    | 12 500              | 12 30,000 | 12 200     | *              |               |    |    |  |  |
| 1974       | 13                | 15,900         | 13 -        | -         | 13 65,000    | 13 200              | 13 30,000 | 13 200     | *              |               |    |    |  |  |
| 1975       | 14                | 16,200         | 14 100      | 60        | 14 40,000    | 14 250              | 14 22,000 | 14 90      | *              |               |    |    |  |  |
| 1976       | 15                | 15,000         | 15 600      | -         | 15 45,000    | 15 250              | 15 15,000 | 15 115     | *              | 1             | 18 |    |  |  |
| 1977       | 16                | 2,373          | 16 975      | -         | 16 41,950    | 16 260              | 16 2,805  | 16 190     | 1              | 220           | 2  |    |  |  |
| 1978       | 17                | 2,341          | 17 2,437    | -         | 17 39,305    | 17 95               | 17 7,635  | 17 455     | 2              | 230           | 3  | 39 |  |  |
| 1979       | 18                | 985            | 18 2,447    | -         | 18 41,490    | 18 -                | 18 6,239  | 18 437     | 3              | 247           | 4  | 46 |  |  |
| 1980       | 19                | 1,390          | 19 1,881    | -         | 19 42,246    | 19 209              | 19 8,134  | 19 692     | 4              | 302           | 5  | 43 |  |  |
| 1981       | 20                | 1,400          | 20 2,246    | -         | 20 36,770    | 20 150              | 20 8,169  | 20 833     | 5              | 383           | 6  | 40 |  |  |
| 1982       | 21                | 1,600          | 21 1,000    | -         | 21 21,000    | 21 30               | 21 2,590  | 21 216     | 6              | 89            | 7  | 10 |  |  |
| 1983       | 22                | 2,527          | 22 927      | -         | 22 39,653    | 22 239              | 22 4,411  | 22 269     | 7              | 177           | 8  | 20 |  |  |
| 1984       | 23                | 3,451          | 23 2,078    | -         | 23 46,734    | 23 299              | 23 6,671  | 23 432     | 8              | 340           | 9  | 32 |  |  |
| 1985       | 24                | 7,550          | 24 2,078    | 1         | 24 58,631    | 24 150              | 24 7,646  | 24 642     | 9              | 362           | 10 | 33 |  |  |
| 1986       | 25                | 6,800          | 25 1,000    | 2         | 25 72,200    | *                   | 25 2,600  | 25 1,000   | 10             | *             | 11 | 20 |  |  |
| 1987       | 26                | 7,300          | 26 1,200    | 3         | 26 75,700    | *                   | 26 3,300  | 26 700     | 11             | 200           | 12 | 20 |  |  |
| Pronostico | *2*11             |                | *3 *11      | *4        | *5           | *6                  | *7 *13    | *8         | *9*11          | *10*          |    |    |  |  |
| 2000       | 39                | 6,200          | 39 1,200    | 16        | 39 59,000    | 39 -                | 39 11,600 | 39 500     | 24             | 300           | 25 | 3  |  |  |
| 2005       | 44                | 6,200          | 44 1,200    | 21        | 44 61,000    | 44 -                | 44 11,600 | 44 500     | 29             | 300           | 30 | 3  |  |  |
| 2010       | 49                | 6,200          | 49 1,200    | 26        | 49 63,000    | 49 -                | 49 11,600 | 49 500     | 34             | 300           | 35 | 3  |  |  |
| 2015       | 54                | 6,200          | 54 1,200    | 31        | 54 64,000    | 54 -                | 54 11,600 | 54 600     | 39             | 300           | 40 | 3  |  |  |
| 2020       | 59                | 6,200          | 59 1,200    | 36        | 59 66,000    | 59 -                | 59 11,600 | 59 600     | 44             | 300           | 45 | 3  |  |  |

\*1 Años en orden

\*2  $y = a + \text{EXP}(x*b)$   $a \approx 6383$   $b = -0,02325$   $r = 0,22$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*3  $y = a + bx$   $a \approx 752,8$   $b = 31,27$   $r = 0,37$  (Nivel de confianza 5%, df. = 23;  $r > 0.391$  no correlación)

\*4  $y = a + b * \text{LOG}x$   $a \approx 173,6$   $b = 1492,3$   $r = 0,998$

\*5  $y = a + b * \text{LOG}x$   $a \approx -3932$   $b = 39423$   $r = 0,74$

\*6  $y = a + b * \text{LOG}x$   $a \approx 2891$   $b = -2023,3$   $r = 0,87$

\*7  $y = a * x^b$   $a \approx 18530$   $b = -0,29181$   $r = 0,35$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*8  $y = a + b * \text{LOG}x$   $a \approx 74,1$   $b = 278,68$   $r = 0,42$

\*9  $y = a + b * \text{LOG}x$   $a \approx 231,9$   $b = 34,94$   $r = 0,12$  (Nivel de confianza 5%, df. = 8;  $r > 0.632$  no correlación)

\*10  $y = a + bx$   $a \approx 371,1$   $b = -11,15$   $r = 0,32$  (Nivel de confianza 5%, df. = 9;  $r > 0.602$  no correlación)

\*11 Por tendencia estacionaria, se aplicaron cifras promedios al area futura.

Nota: x = Años en orden y = Area

Tabla 4.5 PRINCIPALES RUBROS AGRICOLAS - MANABI (2/4)  
(SUPERFICIE CULTIVADA)

(Unidad: ha)

| Año        | HORTALIZAS |       |           |       |         | FRUTAS   |       |        |        |       |       |                |       |       |       |       |      |
|------------|------------|-------|-----------|-------|---------|----------|-------|--------|--------|-------|-------|----------------|-------|-------|-------|-------|------|
|            | Sandía     |       | Tomate *1 |       | Zapallo | Aguacate |       | Banano |        | Limón |       | Manda-<br>rina |       | Mango |       | Naran |      |
|            | N          |       | N         | riñón | N       | N        |       | N      |        | N     |       | N              |       | N     |       | N     |      |
| Actual     |            |       |           |       |         |          |       |        |        |       |       |                |       |       |       |       |      |
| 1962       | 1          | 800   | 1         | 175   | *       | 1        | 70    | 1      | 6,000  | 1     | 178   | 1              | 165   | 1     | 159   | 1     | 2,84 |
| 1963       | 2          | 800   | 2         | 200   | *       | 2        | 120   | 2      | 6,000  | 2     | 145   | 2              | 130   | 2     | 110   | 2     | 2,25 |
| 1964       | 3          | 1,000 | 3         | 200   | *       | 3        | 120   | 3      | 1,746  | 3     | 150   | 3              | 100   | 3     | 115   | 3     | 2,20 |
| 1965       | 4          | 1,100 | 4         | 200   | *       | 4        | 120   | 4      | 1,650  | 4     | 154   | 4              | 100   | 4     | 120   | 4     | 2,30 |
| 1966       | 5          | 1,000 | 5         | 170   | *       | 5        | 120   | 5      | 1,650  | 5     | 154   | 5              | 100   | 5     | 120   | 5     | 2,31 |
| 1967       | 6          | 1,565 | 6         | 183   | *       | 6        | 127   | 6      | 2,055  | 6     | 168   | 6              | 123   | 6     | 132   | 6     | 1,95 |
| 1968       | 7          | 1,000 | 7         | 200   | *       | 7        | 130   | 7      | 2,000  | 7     | 70    | 7              | 200   | 7     | 135   | 7     | 2,20 |
| 1969       | 8          | 2,000 | 8         | 100   | *       | 8        | 150   | 8      | 2,000  | 8     | 200   | 8              | 150   | 8     | 120   | 8     | 1,95 |
| 1970       | 9          | 2,000 | 9         | 120   | *       | 9        | 150   | 9      | 2,200  | 9     | 200   | 9              | 150   | 9     | 120   | 9     | 1,97 |
| 1971       | 10         | 2,000 | 10        | 120   | *       | 10       | 180   | 10     | 2,200  | 10    | 230   | 10             | 100   | 10    | 120   | 10    | 1,90 |
| 1972       | 11         | 1,000 | 11        | 300   | *       | 11       | 180   | 11     | 1,800  | 11    | 200   | 11             | 100   | 11    | 100   | 11    | 1,70 |
| 1973       | 12         | 700   | 12        | 500   | *       | 12       | 300   | 12     | 2,800  | 12    | 300   | 12             | 80    | 12    | 100   | 12    | 1,50 |
| 1974       | 13         | 680   | 13        | 555   | *       | 13       | 1,200 | 13     | 16,500 | 13    | 1,500 | 13             | 124   | 13    | 600   | 13    | 1,59 |
| 1975       | 14         | 500   | 14        | 350   | *       | 14       | 1,500 | 14     | 10,000 | 14    | 1,500 | 14             | 300   | 14    | 550   | 14    | 1,58 |
| 1976       | 15         | 800   | 15        | 300   | *       | 15       | 1,200 | 15     | 9,000  | 15    | 1,100 | 15             | 500   | 15    | 400   | 15    | 1,80 |
| 1977       | 16         | 932   | 16        | 393   | *       | 16       | 215   | 16     | 2,824  | 16    | 457   | 16             | 600   | 16    | 200   | 16    | 1,50 |
| 1978       | 17         | 1,464 | 17        | 830   | -       | 17       | 235   | 17     | 2,488  | 17    | 531   | 17             | 930   | 17    | 425   | 17    | 2,00 |
| 1979       | 18         | 1,130 | 18        | 867   | -       | 18       | 250   | 18     | 437    | 18    | 530   | 18             | 950   | 18    | 430   | 18    | 2,05 |
| 1980       | 19         | 2,112 | 19        | 518   | -       | 19       | 281   | 19     | 435    | 19    | 481   | 19             | 947   | 19    | 420   | 19    | 2,70 |
| 1981       | 20         | 2,235 | 20        | 713   | -       | 20       | 275   | 20     | 286    | 20    | 531   | 20             | 967   | 20    | 413   | 20    | 2,70 |
| 1982       | 21         | 716   | 21        | 120   | 1       | 21       | 270   | 21     | 2,085  | 21    | 531   | 21             | 962   | 21    | 413   | 21    | 2,70 |
| 1983       | 22         | 732   | 22        | 325   | 2       | 22       | 263   | 22     | 2,113  | 22    | 481   | 22             | 979   | 22    | 400   | 22    | 2,65 |
| 1984       | 23         | 924   | 23        | 434   | 3       | 23       | 305   | 23     | 2,754  | 23    | 533   | 23             | 1,039 | 23    | 386   | 23    | 2,57 |
| 1985       | 24         | 1,216 | 24        | 906   | 4       | 24       | 282   | 24     | 3,413  | 24    | 573   | 24             | 1,717 | 24    | 407   | 24    | 2,44 |
| 1986       | 25         | 2,500 | 25        | 600   | -       | 25       | 100   | 25     | 14,000 | 25    | 300   | 25             | 300   | *     | *     | 25    | 1,30 |
| 1987       | 26         | 3,600 | 26        | 900   | -       | *        | 26    | 15,200 | 26     | 200   | 26    | 400            | *     | *     | *     | 26    | 1,70 |
| Pronostico | *2*11      |       | *3        |       | *4*11   |          | *5    |        | *6*11  |       | *7    |                | *8    |       | *9    |       | *10* |
| 2000       | 39         | 1,300 | 39        | 600   | 19      | 39       | 400   | 39     | 4,400  | 39    | 700   | 39             | 1,600 | 39    | 700   | 39    | 2,10 |
| 2005       | 44         | 1,300 | 44        | 700   | 24      | 44       | 500   | 44     | 4,400  | 44    | 700   | 44             | 1,800 | 44    | 800   | 44    | 2,10 |
| 2010       | 49         | 1,300 | 49        | 700   | 29      | 49       | 500   | 49     | 4,400  | 49    | 800   | 49             | 2,000 | 49    | 900   | 49    | 2,10 |
| 2015       | 54         | 1,300 | 54        | 700   | 34      | 54       | 500   | 54     | 4,400  | 54    | 800   | 54             | 2,200 | 54    | 1,000 | 54    | 2,10 |
| 2020       | 59         | 1,300 | 59        | 700   | 39      | 59       | 500   | 59     | 4,400  | 59    | 800   | 59             | 2,400 | 59    | 1,100 | 59    | 2,10 |

\*1 Años en orden

\*2  $y = a + bx$   $a = 872$   $b = 33,67$   $r = 0,35$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*3  $y = a + b * \text{LOG}x$   $a = -55,5$   $b = 440,6$   $r = 0,60$

\*4  $y = a * x^b$   $a = 929,1$   $b = 0,59680$   $r = 0,59$  (Nivel de confianza 5%, df. = 2;  $r > 0.950$  no correlación)

\*5  $y = a * x^b$   $a = 72,32$   $b = 0,49017$   $r = 0,53$

\*6  $y = a + bx$   $a = 2330$   $b = 151,2$   $r = 0,25$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*7  $y = a * x^b$   $a = 90,53$   $b = 0,54$   $r = 0,59$

\*8  $y = a + bx$   $a = -106$   $b = 42,66$   $r = 0,73$

\*9  $y = a + bx$   $a = 54,13$   $b = 17,32$   $r = 0,73$

\*10  $y = a * x^b$   $a = 2366$   $b = -0,0613$   $r = 0,24$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*11 Por tendencia estacionaria, se aplicaron cifras promedio para producción futura

Nota: x = Años en orden y = Area

Tabla 4.5 PRINCIPALES RUBROS AGRICOLAS - MANABI (3/4)  
(SUPERFICIE CULTIVADA)

(Unidad: ha)

| Año      | FRUTAS |       |            |         |           | OLEAGINOSAS |                 |           |               |       |
|----------|--------|-------|------------|---------|-----------|-------------|-----------------|-----------|---------------|-------|
|          | Papaya | Piña  | Plátano *1 | Toronja | Ajonjolí  | Coco        | Higue-<br>rilla | Maní      | Pal<br>Africa |       |
|          | N      | N     | N          | N       | N         | N           | N               | N         | N             |       |
| Actual   |        |       |            |         |           |             |                 |           |               |       |
| 1962     | *      | 1     | 230        | 1       | 2,210     | *           | 1               | 13,000    | 1             | 5,000 |
| 1963     | *      | 2     | 240        | 2       | 2,500     | *           | 2               | 11,000    | 2             | 4,500 |
| 1964     | *      | 3     | 220        | 3       | 2,550     | *           | 3               | 21,000    | 3             | 4,000 |
| 1965     | *      | 4     | 220        | 4       | 2,500     | *           | 4               | 21,000    | 4             | 5,873 |
| 1966     | *      | 5     | 250        | 5       | 2,700     | *           | 5               | 21,500    | 5             | 5,873 |
| 1967     | *      | 6     | 338        | 6       | 7,176     | *           | 6               | 21,512    | 6             | 4,902 |
| 1968     | *      | 7     | 300        | 7       | 3,500     | *           | 7               | 14,000    | 7             | 6,200 |
| 1969     | *      | 8     | 550        | 8       | 3,500     | *           | 8               | 21,512    | 8             | 1,380 |
| 1970     | *      | 9     | 550        | 9       | 3,500     | *           | 9               | 15,000    | 9             | 1,200 |
| 1971     | *      | 10    | 300        | 10      | 5,000     | *           | 10              | 30,000    | 10            | 6,000 |
| 1972     | *      | 11    | 400        | 11      | 4,500     | *           | 11              | 25,000    | 11            | 8,000 |
| 1973     | *      | 12    | 500        | 12      | 5,000     | *           | 12              | 45,000    | 12            | 8,000 |
| 1974     | *      | 13    | 650        | 13      | 10,300    | 1           | 570             | 13 42,000 | 13            | 8,423 |
| 1975     | *      | 14    | 800        | 14      | 25,000    | 2           | 700             | 14 2,000  | 14            | 4,500 |
| 1976     | 1      | 200   | 15         | 500     | 15 25,000 | 3           | 600             | 15 15,800 | 15            | 2,000 |
| 1977     | 2      | 120   | 16         | 310     | 16 27,268 | 4           | 377             | 16 9,000  | 16            | 2,214 |
| 1978     | 3      | 150   | 17         | 385     | 17 26,050 | 5           | 866             | 17 8,506  | 17            | 5,850 |
| 1979     | 4      | 155   | 18         | 385     | 18 20,460 | 6           | 860             | 18 8,000  | 18            | 7,000 |
| 1980     | 5      | 196   | 19         | 211     | 19 20,560 | 7           | 870             | 19 4,760  | 19            | 5,653 |
| 1981     | 6      | 219   | 20         | 202     | 20 19,966 | 8           | 897             | 20 2,500  | 20            | 4,500 |
| 1982     | 7      | 215   | 21         | 116     | 21 18,500 | 9           | 900             | 21 1,287  | 21            | 1,700 |
| 1983     | 8      | 215   | 22         | 297     | 22 18,842 | 10          | 870             | 22 1,409  | 22            | 2,097 |
| 1984     | 9      | 350   | 23         | 269     | 23 17,625 | 11          | 958             | 23 1,967  | 23            | 1,339 |
| 1985     | 10     | 356   | 24         | 462     | 24 18,315 | 12          | 1,073           | 24 1,528  | 24            | 3,000 |
| 1986     | 11     | 100   | 25         | 100     | 25 25,600 | *           | 13              | 25 1,400  | 25            | 2,700 |
| 1987     | 12     | 200   | 26         | 100     | 26 26,100 | *           | 14              | 26 2,200  | 26            | 3,300 |
| Forecast | *2*11  | *3*11 | *4         | *5      | *6        | *7          | *8              | *9*11     | *10*          |       |
| 2000     | 25     | 200   | 39         | 300     | 39 24,800 | 27          | 2,500           | 39 2,900  | 39            | 4,400 |
| 2005     | 30     | 200   | 44         | 300     | 44 25,900 | 32          | 2,900           | 44 2,700  | 44            | 4,400 |
| 2010     | 35     | 200   | 49         | 300     | 49 26,800 | 37          | 3,300           | 49 2,400  | 49            | 4,400 |
| 2015     | 40     | 200   | 54         | 300     | 54 27,700 | 42          | 3,700           | 54 2,300  | 54            | 4,400 |
| 2020     | 45     | 200   | 59         | 300     | 59 28,500 | 47          | 4,100           | 59 2,100  | 59            | 4,400 |

\*1 Años en orden

\*2  $y = a + bx$   $a = 154,3$   $b = 8,01$   $r = 0,37$  (Nivel de confianza 5%, df. = 10;  $r > 0.576$  no correlación)

\*3  $y = a + bx$   $a = 384,1$   $b = -3,14$   $r = 0,14$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*4  $y = a + b * \text{LOG}x$   $a = -7586$   $b = 20351$   $r = 0,77$

\*5  $y = a + b * \text{LOG}x$   $a = 555,3$   $b = -93,75$   $r = 0,56$

\*6  $y = a + bx$   $a = 385,9$   $b = -18,08$   $r = 0,67$

\*7  $y = a + bx$   $a = 336,8$   $b = 79,3$   $r = 0,80$

\*8  $y = a * x^b$   $a = 53882$   $b = -0,7952$   $r = 0,57$

\*9  $y = a + bx$   $a = 5714$   $b = -95,07$   $r = 0,33$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*10  $y = a * x^b$   $a = 352,3$   $b = 0,41426$   $r = 0,38$  (Nivel de confianza 5%, df. = 12;  $r > 0.532$  no correlación)

\*11 Por tendencia estacionaria, se aplicaron cifras promedio para area futura

Nota: x = Años en orden y = Area

Tabla 4.5 PRINCIPALES RUBROS AGRICOLAS - MANABI (4/4)  
(SUPERFICIE CULTIVADA)

(Unidad: ha)

| Año | OLEAGINOSAS |  | FIBRAS |  | BEBIDAS   |   | OTROS CULTIVOS |   | PAST    |   |
|-----|-------------|--|--------|--|-----------|---|----------------|---|---------|---|
|     | Soya        |  | Abacá  |  | Algodón   |   | Cacao          |   | Café en |   |
|     | N           |  | N      |  | N en rama | N | *1 N n grano   | N | N       | N |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |
|     |             |  |        |  |           |   |                |   |         |   |

Tabla 4.6 PRINCIPALES RUBROS AGRICOLAS - MANABI (1/4)  
(RENDIMIENTO)

(Unidad: t/ha)

| Año      | GRANOS Y CEREALES |                 |             |           |              | TUBERCULOS Y RAICES |           |            |                |               | HORTALIZAS |  |  |  |
|----------|-------------------|-----------------|-------------|-----------|--------------|---------------------|-----------|------------|----------------|---------------|------------|--|--|--|
|          | *1<br>N           | Arroz<br>áscara | Fréjol<br>N | Haba<br>N | Mafz<br>duro | Camote<br>N         | Yuca<br>N | Melón<br>N | Pepi-<br>nillo | Pimiento<br>N |            |  |  |  |
| Actual   |                   |                 |             |           |              |                     |           |            |                |               |            |  |  |  |
| 1962     | 1                 | 2.10            | 1 0.73      | -         | 1 0.45       | 1 1.82              | 1 11.36   | 2.00       | *              |               |            |  |  |  |
| 1963     | 2                 | 1.75            | 2 0.73      | -         | 2 0.45       | 2 1.73              | 2 11.36   | 4.00       | *              |               |            |  |  |  |
| 1964     | 3                 | 1.50            | 3 0.73      | -         | 3 0.55       | 3 1.72              | 3 11.36   | 4.00       | *              |               |            |  |  |  |
| 1965     | 4                 | 2.11            | 4 0.73      | -         | 4 0.60       | 4 1.77              | 4 11.36   | 4.00       | *              |               |            |  |  |  |
| 1966     | 5                 | 2.10            | 5 0.73      | -         | 5 0.82       | 5 2.12              | 5 11.36   | 4.00       | *              |               |            |  |  |  |
| 1967     | 6                 | 1.40            | 6 0.99      | -         | 6 0.57       | 6 3.20              | 6 11.52   | *          | *              |               |            |  |  |  |
| 1968     | 7                 | 0.42            | 7 0.65      | -         | 7 0.55       | 7 2.27              | 7 8.18    | 3.33       | *              |               |            |  |  |  |
| 1969     | 8                 | 1.40            | 8 0.92      | -         | 8 0.91       | 8 3.18              | 8 11.36   | -          | *              |               |            |  |  |  |
| 1970     | 9                 | 1.85            | 9 0.80      | -         | 9 1.12       | 9 2.86              | 9 10.00   | 10.00      | *              |               |            |  |  |  |
| 1971     | 10                | 2.28            | 10 0.90     | -         | 10 1.36      | 10 3.18             | 10 11.36  | -          | *              |               |            |  |  |  |
| 1972     | 11                | 1.75            | 11 0.60     | -         | 11 0.91      | 11 2.96             | 11 11.35  | (20.00)    | *              |               |            |  |  |  |
| 1973     | 12                | 2.31            | 12 0.60     | -         | 12 1.16      | 12 2.72             | 12 18.00  | (34.00)    | *              |               |            |  |  |  |
| 1974     | 13                | 1.92            | 13 -        | -         | 13 1.00      | 13 3.00             | 13 22.72  | (24.00)    | *              |               |            |  |  |  |
| 1975     | 14                | 1.75            | 14 1.59     | 1.23      | 14 1.36      | 14 3.00             | 14 18.00  | 1 15.00    | *              |               |            |  |  |  |
| 1976     | 15                | 1.78            | 15 0.70     | -         | 15 1.30      | 15 6.50             | 15 10.70  | 2 8.50     | *              | 1 8.0         |            |  |  |  |
| 1977     | 16                | 3.10            | 16 1.05     | -         | 16 0.97      | 16 7.86             | 16 10.81  | 3 9.47     | (44.95)        | 2             |            |  |  |  |
| 1978     | 17                | 2.71            | 17 1.05     | -         | 17 1.14      | 17 6.81             | 17 6.55   | 4 9.02     | (1.37)         | 3 4.1         |            |  |  |  |
| 1979     | 18                | 2.88            | 18 0.93     | -         | 18 0.91      | 18 -                | 18 9.02   | 5 8.62     | 1 12.00        | 4 3.4         |            |  |  |  |
| 1980     | 19                | 2.71            | 19 0.96     | -         | 19 1.04      | 19 5.04             | 19 9.61   | 6 10.23    | 2 13.64        | 5 4.3         |            |  |  |  |
| 1981     | 20                | 1.67            | 20 0.83     | -         | 20 1.15      | 20 5.77             | 20 9.03   | 7 10.25    | 3 13.64        | 6 5.0         |            |  |  |  |
| 1982     | 21                | 1.60            | 21 0.83     | -         | 21 1.04      | 21 6.80             | 21 9.13   | 8 10.73    | 4 13.79        | 7 5.4         |            |  |  |  |
| 1983     | 22                | 2.65            | 22 0.90     | -         | 22 1.16      | 22 7.31             | 22 10.43  | 9 9.80     | 5 13.83        | 8 5.0         |            |  |  |  |
| 1984     | 23                | 2.44            | 23 1.09     | -         | 23 1.36      | 23 8.62             | 23 11.07  | 10 13.00   | 6 13.50        | 9 5.8         |            |  |  |  |
| 1985     | 24                | 1.29            | 24 2.86     | 1 1.23    | 24 1.56      | 24 9.71             | 24 11.07  | 11 11.52   | 7 15.88        | 10 6.5        |            |  |  |  |
| 1986     | 25                | 2.23            | 25 0.96     | 2 1.56    | 25 1.17      | -                   | 5.70      | 12 6.29    | 8 -            | 11 6.3        |            |  |  |  |
| 1987     | 26                | 2.10            | 26 1.39     | 3 1.90    | 26 1.22      | -                   | 3.96      | 13 5.40    | 9 4.24         | 12 7.4        |            |  |  |  |
| Forecast | *2*12             |                 | *3*12       | *4        | *5           | *6                  | *7*12     | *8         | *9*12          | *10*1         |            |  |  |  |
| 2000     | 39                | 2.00            | 39 1.20     | 16 1.60   | 39 1.39      | 39 8.40             | 39 11.00  | 26 10.00   | 22 13.00       | 25 5.60       |            |  |  |  |
| 2005     | 44                | 2.00            | 44 1.20     | 21 1.60   | 44 1.42      | 44 9.00             | 44 11.00  | 31 10.00   | 27 13.00       | 30 5.60       |            |  |  |  |
| 2010     | 49                | 2.00            | 49 1.20     | 26 1.60   | 49 1.46      | 49 9.50             | 49 11.00  | 36 10.00   | 32 13.00       | 35 5.60       |            |  |  |  |
| 2015     | 54                | 2.00            | 54 1.20     | 31 1.60   | 54 1.49      | 54 10.10            | 54 11.00  | 41 10.00   | 37 13.00       | 40 5.60       |            |  |  |  |
| 2020     | 59                | 2.00            | 59 1.20     | 36 1.60   | 59 1.51      | 59 10.60            | 59 11.00  | 46 10.00   | 42 13.00       | 45 5.60       |            |  |  |  |

\*1 Años en orden

\*2  $y = a + bx$   $a = 1,654$   $b = 0,025$   $r = 0,33$  (Nivel de confianza 5%,  $df. = 24$ ;  $r > 0.381$  no correlación)

\*3  $y = a * x^b$   $a = 0,589$   $b = 0,184$   $r = 0,47$

\*4 Se aplicaron cifras promedio entre 1985 y 1987 para el rendimiento futuro.

\*5  $y = a * x^b$   $a = 0,392$   $b = 0,370$   $r = 0,86$

\*6  $y = a + b * \log x$   $a = 0,695$   $b = 0,282$   $r = 0,82$

\*7  $y = a + bx$   $a = 13,133$   $b = -0,15$   $r = 0,31$  (Nivel de confianza 5%,  $df. = 24$ ;  $r > 0.381$  no correlación)

\*8  $y = a + b * \log x$   $a = 12,28$   $b = -3,25$   $r = 0,43$  (Nivel de confianza 5%,  $df. = 11$ ;  $r > 0.553$  no correlación)

\*9  $y = a + bx$   $a = 15,35$   $b = -0,60$   $r = 0,46$  (Nivel de confianza 5%,  $df. = 6$ ;  $r > 0.707$  no correlación)

\*10  $y = a + bx$   $a = 4,682$   $b = 0,132$   $r = 0,32$  (Nivel de confianza 5%,  $df. = 9$ ;  $r > 0.602$  no correlación)

\*12 Por tendencia estacionaria, se aplicaron cifras promedio.

Nota: x = Años en orden y = Area ( ): Excluido del analisis cifra anormal.

Tabla 4.6 PRINCIPALES RUBROS AGRICOLAS - MANABI (2/4)  
(RENDIMIENTO)

(Unidad: t/ha)

| Año        | HORTALIZAS |             |                      |              |               | FRUTAS      |            |                |            |              |  |  |
|------------|------------|-------------|----------------------|--------------|---------------|-------------|------------|----------------|------------|--------------|--|--|
|            | *1<br>N    | Sandía<br>N | Tomate<br>riñón<br>N | Zapallo<br>N | Aguacate<br>N | Banano<br>N | Limón<br>N | Mandarina<br>N | Mango<br>N | Naranja<br>N |  |  |
| Actual     |            |             |                      |              |               |             |            |                |            |              |  |  |
| 1962       | 1          | 6.36        | 1 17.25              | *            | 1 10.80       | 1 13.28     | 1 19.74    | 1 31.02        | 1 49.81    | 1 18.9       |  |  |
| 1963       | 2          | 6.36        | 2 22.73              | *            | 2 3.60        | 2 9.19      | 2 12.88    | 2 7.66         | 2 44.13    | 2 19.0       |  |  |
| 1964       | 3          | 6.36        | 3 22.73              | *            | 3 3.60        | 3 11.09     | 3 13.67    | 3 8.20         | 3 31.30    | 3 15.5       |  |  |
| 1965       | 4          | 6.36        | 4 22.73              | *            | 4 3.60        | 4 11.09     | 4 13.31    | 4 8.20         | 4 31.51    | 4 15.2       |  |  |
| 1966       | 5          | 6.36        | 5 13.64              | *            | 5 3.60        | 5 11.09     | 5 13.31    | 5 8.20         | 5 30.00    | 5 15.2       |  |  |
| 1967       | 6          | 10.10       | 6 21.86              | *            | 6 4.39        | 6 11.67     | 6 13.08    | 6 7.06         | 6 35.47    | 6 21.6       |  |  |
| 1968       | 7          | 6.36        | 7 9.09               | *            | 7 4.50        | 7 10.11     | 7 7.14     | 7 4.00         | 7 24.00    | 7 11.4       |  |  |
| 1969       | 8          | 1.59        | 8 18.18              | *            | 8 0.90        | 8 12.26     | 8 3.00     | 8 6.40         | 8 8.00     | 8 15.5       |  |  |
| 1970       | 9          | 2.00        | 9 16.67              | *            | 9 2.00        | 9 13.80     | 9 3.00     | 9 6.33         | 9 8.00     | 9 15.2       |  |  |
| 1971       | 10         | 1.91        | 10 10.00             | *            | 10 6.67       | 10 13.80    | 10 3.39    | 10 2.50        | 10 8.33    | 10 16.8      |  |  |
| 1972       | 11         | 1.50        | 11 18.00             | *            | 11 6.67       | 11 15.00    | 11 4.00    | 11 5.00        | 11 7.00    | 11 12.0      |  |  |
| 1973       | 12         | 9.54        | 12 6.00              | *            | 12 10.00      | 12 25.00    | 12 8.00    | 12 9.60        | 12 22.77   | 12 20.0      |  |  |
| 1974       | 13         | 9.53        | 13 15.00             | *            | 13 3.60       | 13 20.00    | 13 12.50   | 13 9.60        | 13 45.00   | 13 30.4      |  |  |
| 1975       | 14         | 7.95        | 14 15.57             | *            | 14 3.60       | 14 15.00    | 14 12.50   | 14 24.00       | 14 57.60   | 14 30.4      |  |  |
| 1976       | 15         | 14.00       | 15 9.20              | *            | 15 7.00       | 15 24.00    | 15 8.00    | 15 9.30        | 15 15.40   | 15 28.0      |  |  |
| 1977       | 16         | 13.10       | 16 7.53              | *            | 16 12.72      | 16 23.60    | 16 17.99   | 16 18.40       | 16 16.81   | 16 31.0      |  |  |
| 1978       | 17         | 14.23       | 17 8.32              | -            | 17 12.28      | 17 24.44    | 17 13.38   | 17 9.62        | 17 17.80   | 17 24.0      |  |  |
| 1979       | 18         | 10.79       | 18 11.50             | -            | 18 11.40      | 18 32.00    | 18 12.89   | 18 9.83        | 18 18.60   | 18 24.0      |  |  |
| 1980       | 19         | 11.95       | 19 12.43             | -            | 19 11.60      | 19 33.20    | 19 13.06   | 19 10.45       | 19 17.55   | 19 24.5      |  |  |
| 1981       | 20         | 12.12       | 20 11.75             | -            | 20 10.20      | 20 27.44    | 20 10.94   | 20 10.89       | 20 14.52   | 20 21.1      |  |  |
| 1982       | 21         | 10.10       | 21 10.40             | 1 8.18       | 21 9.07       | 21 13.15    | 21 9.70    | 21 10.40       | 21 11.34   | 21 18.0      |  |  |
| 1983       | 22         | 10.89       | 22 11.48             | 2 11.34      | 22 8.62       | 22 15.61    | 22 8.48    | 22 8.39        | 22 9.03    | 22 14.9      |  |  |
| 1984       | 23         | 13.88       | 23 12.97             | 3 13.61      | 23 10.00      | 23 18.87    | 23 9.07    | 23 11.20       | 23 11.02   | 23 17.6      |  |  |
| 1985       | 24         | 13.83       | 24 12.97             | 4 15.88      | 24 10.07      | 24 18.73    | 24 10.21   | 24 12.07       | 24 11.00   | 24 18.8      |  |  |
| 1986       | 25         | 19.50       | 25 8.31              | -            | 25 6.40       | 25 10.76    | 25 8.13    | 25 8.18        | -          | 25 12.0      |  |  |
| 1987       | 26         | 19.08       | 26 8.08              | -            | 26 -          | 26 12.24    | 26 12.02   | 26 9.36        | -          | 26 10.3      |  |  |
| Pronostico | *2*10      |             | *3                   | *10          | *4            | *5          | *6*10      | *7*10          | *8         | *9*1         |  |  |
| 2000       | 39 14.00   | 39 8.20     | 19 12.00             | 39 9.00      | 39 21.80      | 39 10.50    | 39 10.20   | 39 8.40        | 39 19.30   |              |  |  |
| 2005       | 44 14.00   | 44 7.70     | 24 12.00             | 44 9.30      | 44 22.50      | 44 10.50    | 44 10.20   | 44 7.10        | 44 19.30   |              |  |  |
| 2010       | 49 14.00   | 49 7.30     | 29 12.00             | 49 9.60      | 49 23.00      | 49 10.50    | 49 10.20   | 49 6.00        | 49 19.30   |              |  |  |
| 2015       | 54 14.00   | 54 6.90     | 34 12.00             | 54 9.90      | 54 23.60      | 54 10.50    | 54 10.20   | 54 5.00        | 54 19.30   |              |  |  |
| 2020       | 59 14.00   | 59 6.50     | 39 12.00             | 59 10.10     | 59 24.10      | 59 10.50    | 59 10.20   | 59 4.00        | 59 19.30   |              |  |  |

\*1 Años en orden

\*2  $y = a + bx$   $a = 10,82$   $b = 0,423$   $r = 0,51$  (Nivel de confianza 5%, df. = 10;  $r > 0.576$  no correlación)

\*3  $y = a + b \cdot \text{LOG}x$   $a = 23,340$   $b = -9,49$   $r = 0,68$

\*4  $y = a + b \cdot \text{LOG}x$   $a = 2,971$   $b = 4,072$   $r = 0,41$

\*5  $y = a \cdot x^b$   $a = 9,124$   $b = 0,238$   $r = 0,53$

\*6  $y = a + b \cdot \text{LOG}x$   $a = 14,269$   $b = -3,66$   $r = 0,31$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*7  $y = a + b \cdot \text{LOG}x$   $a = 13,875$   $b = -3,56$   $r = 0,22$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*8  $y = a + b \cdot \text{LOG}x$   $a = 46,540$   $b = -23,9$   $r = 0,59$

\*9  $y = a + b \cdot \text{LOG}x$   $a = 16,790$   $b = 2,466$   $r = 0,15$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*10 Por tendencia estacionaria, se aplicaron cifras promedio.

Nota:  $x$  = Años en orden  $y$  = Area



Tabla 4.6 PRINCIPALES RUBROS AGRICOLAS - MANABI (3/4)  
(RENDIMIENTO)

(Unidad: t/ha)

| Año      | FRUTAS         |           |              |              |                    | OLEAGINOSAS |                      |           |                       |       |  |  |
|----------|----------------|-----------|--------------|--------------|--------------------|-------------|----------------------|-----------|-----------------------|-------|--|--|
|          | *1 Papaya<br>N | Piña<br>N | Plátano<br>N | Toronja<br>N | Ajon-<br>jolí<br>N | Coco<br>N   | Higue-<br>rilla<br>N | Maní<br>N | Palm<br>Africana<br>N |       |  |  |
| Actual   |                |           |              |              |                    |             |                      |           |                       |       |  |  |
| 1962     | *              | 1 18.20   | 1 13.03      | *            | 1 1.09             | *           | 1 1.62               | 1 0.73    |                       |       |  |  |
| 1963     | *              | 2 18.20   | 2 8.00       | *            | 2 1.09             | *           | 2 1.76               | 2 0.68    |                       |       |  |  |
| 1964     | *              | 3 18.20   | 3 9.41       | *            | 3 1.09             | *           | 3 1.08               | 3 0.59    |                       |       |  |  |
| 1965     | *              | 4 18.20   | 4 9.60       | *            | 4 0.93             | *           | 4 1.10               | 4 0.73    |                       | 2.6   |  |  |
| 1966     | *              | 5 16.38   | 5 9.60       | *            | 5 0.91             | *           | 5 1.09               | 5 0.73    |                       |       |  |  |
| 1967     | *              | 6 19.49   | 6 21.26      | *            | 6 0.91             | *           | 6 1.05               | 6 0.55    |                       |       |  |  |
| 1968     | *              | 7 9.10    | 7 9.00       | *            | 7 0.64             | *           | 7 0.58               | 7 0.29    |                       |       |  |  |
| 1969     | *              | 8 10.92   | 8 12.00      | *            | 8 0.91             | *           | 8 1.05               | 8 1.36    |                       |       |  |  |
| 1970     | *              | 9 10.91   | 9 12.00      | *            | 9 1.08             | *           | 9 1.07               | 9 0.83    |                       |       |  |  |
| 1971     | *              | 10 12.74  | 10 16.00     | *            | 10 0.82            | *           | 10 1.14              | 10 1.14   |                       |       |  |  |
| 1972     | *              | 11 12.74  | 11 14.00     | *            | 11 0.83            | *           | 11 0.91              | 11 1.00   |                       |       |  |  |
| 1973     | *              | 12 15.00  | 12 16.00     | *            | 12 0.90            | *           | 12 1.13              | 12 0.91   |                       |       |  |  |
| 1974     | *              | 13 12.74  | 13 16.00     | 1 30.40      | 13 0.92            | 1 17.10     | 13 0.90              | 13 0.91   | 1                     | 1.2   |  |  |
| 1975     | *              | 14 12.74  | 14 12.00     | 2 30.40      | 14 0.91            | 2 9.00      | 14 1.20              | 14 1.14   | 2                     | 1.2   |  |  |
| 1976     | 1 35.00        | 15 27.00  | 15 16.00     | 3 15.00      | 15 1.10            | 3 11.00     | 15 0.80              | 15 1.00   | 3                     | 0.8   |  |  |
| 1977     | 2 24.00        | 16 22.85  | 16 7.30      | 4 20.29      | 16 -               | 4 4.05      | 16 1.04              | 16 0.69   | 4                     | 1.5   |  |  |
| 1978     | 3 23.55        | 17 20.00  | 17 11.80     | 5 24.71      | 17 -               | 5 11.00     | 17 0.80              | 17 0.82   | 5                     | 1.5   |  |  |
| 1979     | 4 23.32        | 18 19.00  | 18 9.00      | 6 24.54      | 18 0.45            | 6 11.76     | 18 0.91              | 18 1.30   | 6                     | 3.7   |  |  |
| 1980     | 5 27.27        | 19 19.07  | 19 10.00     | 7 25.00      | 19 -               | 7 12.73     | 19 0.91              | 19 1.10   | 7                     | 5.3   |  |  |
| 1981     | 6 27.03        | 20 17.00  | 20 10.00     | 8 23.70      | 20 -               | 8 13.30     | 20 0.91              | 20 0.95   | 8                     | 5.9   |  |  |
| 1982     | 7 18.34        | 21 13.61  | 21 9.74      | 9 18.00      | 21 -               | 9 12.27     | 21 0.69              | 21 0.90   | 9                     | 6.4   |  |  |
| 1983     | 8 15.83        | 22 18.14  | 22 9.43      | 10 15.88     | 22 -               | 10 9.00     | 22 0.89              | 22 1.13   | 10                    | 7.1   |  |  |
| 1984     | 9 22.68        | 23 19.28  | 23 13.61     | 11 18.14     | 23 -               | 11 13.61    | 23 0.91              | 23 1.32   | 11                    | 8.8   |  |  |
| 1985     | 10 22.68       | 24 18.68  | 24 16.24     | 12 20.16     | 24 0.38            | 12 15.88    | 24 1.04              | 24 1.36   | 12                    | 10.0  |  |  |
| 1986     | 11 20.67       | 25 11.96  | 25 9.53      | 13 -         | -                  | 13 12.73    | 25 1.08              | 25 1.41   | 13                    | 15.8  |  |  |
| 1987     | 12 14.52       | 26 7.96   | 26 10.14     | 14 18.97     | -                  | 14 12.75    | 26 0.83              | 26 1.06   | 14                    | 15.9  |  |  |
| Forecast | *2             | *3*11     | *4*11        | *5           | *6                 | *7*11       | *8                   | *9        | *1                    |       |  |  |
| 2000     | 25 14.40       | 39 16.20  | 39 11.90     | 27 15.60     | 39 0.62            | 27 11.90    | 39 0.75              | 39 1.20   | 27                    | 14.00 |  |  |
| 2005     | 30 13.40       | 44 16.20  | 44 11.90     | 32 14.90     | 44 0.60            | 32 11.90    | 44 0.73              | 44 1.20   | 32                    | 14.00 |  |  |
| 2010     | 35 12.60       | 49 16.20  | 49 11.90     | 37 14.30     | 49 0.59            | 37 11.90    | 49 0.71              | 49 1.30   | 37                    | 15.00 |  |  |
| 2015     | 40 11.80       | 54 16.20  | 54 11.90     | 42 13.80     | 54 0.57            | 42 11.90    | 54 0.69              | 54 1.30   | 42                    | 16.00 |  |  |
| 2020     | 45 11.20       | 59 16.20  | 59 11.90     | 47 13.30     | 59 0.56            | 47 11.90    | 59 0.67              | 59 1.30   | 47                    | 16.00 |  |  |

\*1 Años en orden

\*2  $y = a + b \cdot \text{LOG}x$   $a = 32,023$   $b = -12,6$   $r = 0,75$

\*3  $y = a + bx$   $a = 16,271$   $b = -0,00$   $r = 0,01$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*4  $y = a + bx$   $a = 12,393$   $b = -0,03$   $r = 0,08$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*5  $y = a + b \cdot \text{LOG}x$   $a = 29,050$   $b = -9,40$   $r = 0,63$

\*6  $y = a + b \cdot \text{LOG}x$   $a = 1,186$   $b = -0,35$   $r = 0,60$

\*7  $y = a + bx$   $a = 10,430$   $b = 0,192$   $r = 0,25$  (Nivel de confianza 5%, df. = 12;  $r > 0.532$  no correlación)

\*8  $y = a + b \cdot \text{LOG}x$   $a = 1,497$   $b = -0,46$   $r = 0,69$

\*9  $y = a + b \cdot \text{LOG}x$   $a = 0,467$   $b = 0,469$   $r = 0,60$

\*10  $y = a + b \cdot \text{LOG}x$   $a = -4,092$   $b = 12,29$   $r = 0,75$

\*11 Por tendencia estacionaria, se aplicaron cifras promedio.

Nota: x = Años en orden y = Area

Tabla 4.6 PRINCIPALES RUBROS AGRICOLAS - MANABI (4/4)  
(RENDIMIENTO)

(Unidad: t/ha)

| Año      | OLEAGINOSAS |           | FIBRAS     |                     | BEBIDAS     |                  |                   |              | OTROS CULTIVOS         |  |  |  |
|----------|-------------|-----------|------------|---------------------|-------------|------------------|-------------------|--------------|------------------------|--|--|--|
|          | *1<br>N     | Soya<br>N | Abacá<br>N | Algodón<br>N n rama | Cabuya<br>N | Cacao<br>N grano | Café e<br>N grano | Achiote<br>N | Caña para<br>N os usos |  |  |  |
| Actual   |             |           |            |                     |             |                  |                   |              |                        |  |  |  |
| 1962     |             | *         | -          | 1 0.45              | *           | 0.14             | 1 0.36            | *            | *                      |  |  |  |
| 1963     |             | *         | -          | 2 0.40              | *           | 0.18             | 2 0.36            | *            | *                      |  |  |  |
| 1964     |             | *         | -          | 3 0.57              | *           | 0.18             | 3 0.26            | *            | *                      |  |  |  |
| 1965     |             | *         | -          | 4 0.57              | *           | *                | 4 0.39            | *            | *                      |  |  |  |
| 1966     |             | *         | -          | 5 0.59              | *           | *                | 5 0.39            | *            | *                      |  |  |  |
| 1967     |             | *         | -          | 6 0.56              | *           | *                | 6 0.31            | *            | *                      |  |  |  |
| 1968     |             | -         | -          | 7 0.45              | *           | *                | 7 0.35            | *            | *                      |  |  |  |
| 1969     |             | -         | -          | 8 0.75              | *           | 1 0.23           | 8 0.16            | *            | *                      |  |  |  |
| 1970     |             | -         | -          | 9 1.21              | *           | 2 0.22           | 9 0.20            | *            | *                      |  |  |  |
| 1971     | 1           | 1.82      | -          | 10 (3.48)           | *           | 3 0.23           | 10 0.27           | *            | *                      |  |  |  |
| 1972     | 2           | 1.82      | -          | 11 0.90             | *           | 4 0.33           | 11 0.27           | *            | 1 40.00                |  |  |  |
| 1973     | 3           | 1.80      | -          | 12 0.83             | *           | 5 0.25           | 12 0.22           | *            | 2 40.00                |  |  |  |
| 1974     | 4           | 1.36      | 1 1.10     | 13 0.84             | *           | 6 0.40           | 13 0.30           | *            | 3 45.00                |  |  |  |
| 1975     | 5           | 1.49      | 2 1.17     | 14 0.78             | *           | 7 0.33           | 14 0.32           | *            | 4 40.00                |  |  |  |
| 1976     | 6           | 1.80      | 3 1.60     | 15 0.90             | *           | 8 0.20           | 15 0.40           | 1 0.90       | 5 50.00                |  |  |  |
| 1977     | 7           | 1.49      | 4 1.27     | 16 1.29             | -           | 9 0.30           | 16 0.32           | 2 -          | 6 63.27                |  |  |  |
| 1978     | 8           | 1.51      | 5 (2.72)   | 17 0.86             | 1 1.46      | 10 0.25          | 17 0.32           | 3 0.82       | 7 39.95                |  |  |  |
| 1979     | 9           | 1.36      | 6 0.74     | 18 1.97             | 2 1.83      | 11 0.29          | 18 0.37           | 4 0.85       | 8 40.77                |  |  |  |
| 1980     | 10          | 1.36      | 7 0.80     | 19 2.15             | 3 2.05      | 12 0.34          | 19 0.21           | 5 0.86       | 9 40.00                |  |  |  |
| 1981     | 11          | 1.40      | 8 0.68     | 20 1.78             | 4 2.10      | 13 0.30          | 20 0.20           | 6 0.88       | 10 37.56               |  |  |  |
| 1982     | 12          | 1.49      | -          | 21 1.13             | 5 3.92      | 14 0.31          | 21 0.14           | 7 0.67       | 11 37.00               |  |  |  |
| 1983     | 13          | 1.40      | -          | 22 0.57             | 6 3.90      | 15 0.15          | 22 0.15           | 8 0.57       | 12 30.00               |  |  |  |
| 1984     |             | -         | -          | 23 0.79             | 7 3.50      | 16 0.19          | 23 0.17           | 9 0.63       | 13 27.00               |  |  |  |
| 1985     |             | -         | -          | 24 1.07             | 8 4.58      | 17 0.49          | 24 0.28           | 10 0.77      | 14 40.00               |  |  |  |
| 1986     |             | -         | -          | 25 1.70             | 9 4.50      | 18 0.27          | 25 1.12           | 11 0.52      | -                      |  |  |  |
| 1987     |             | -         | -          | 26 0.80             | 10 -        | 19 0.20          | 26 1.00           | 12 0.41      | -                      |  |  |  |
| Forecast | *2          | *3*10     |            | *4                  | *5          | *6*10            | *7*10             | *8           | *9                     |  |  |  |
| 2000     | 30 1.30     | 27 1.10   |            | 39 1.20             | 23 5.70     | 32 0.30          | 39 0.34           | 25 0.48      | 29 41.00               |  |  |  |
| 2005     | 35 1.20     | 32 1.10   |            | 44 1.30             | 28 6.00     | 37 0.30          | 44 0.34           | 30 0.45      | 34 41.00               |  |  |  |
| 2010     | 40 1.20     | 37 1.10   |            | 49 1.30             | 33 6.30     | 42 0.30          | 49 0.34           | 35 0.42      | 39 41.00               |  |  |  |
| 2015     | 45 1.20     | 42 1.10   |            | 54 1.40             | 38 6.50     | 47 0.30          | 54 0.34           | 40 0.40      | 44 41.00               |  |  |  |
| 2020     | 50 1.20     | 47 1.10   |            | 59 1.40             | 43 6.70     | 52 0.30          | 59 0.34           | 45 0.38      | 49 41.00               |  |  |  |

\*1 Años en orden

\*2  $y=a+b*\text{LOG}x$   $a = 1,903$   $b = -0,440$   $r = 0,72$

\*3  $y = a + bx$   $a = 1,455$   $b = -0,091$   $r = 0,7$  (Nivel de confianza 5%, df. = 5;  $r > 0.755$  no correlación)

\*4  $y=a+b*\text{LOG}x$   $a = 0,183$   $b = 0,7547$   $r = 0,58$

\*5  $y=a+b*\text{LOG}x$   $a = 0,909$   $b = 3,5337$   $r = 0,90$

\*6  $y = a * x^b$   $a = 0,250$   $b = 0,0316$   $r = 0,0$  (Nivel de confianza 5%, df. = 17;  $r > 0.456$  no correlación)

\*7  $y = a + bx$   $a = 0,228$   $b = 0,008$   $r = 0,2$  (Nivel de confianza 5%, df. = 24;  $r > 0.381$  no correlación)

\*8  $y=a+b*\text{LOG}x$   $a = 1,008$   $b = -0,380$   $r = 0,72$

\*9  $y = a + bx$   $a = 47,8$   $b = -0,946$   $r = 0,4$  (Nivel de confianza 5%, df. = 12;  $r > 0.532$  no correlación)

\*10 Por tendencia estacionaria, se aplicaron cifras promedio.

Nota: x = Años en orden y = Area ( ): Excluido del análisis cifra inusual.

Tabla 4.7 CONTRIBUCION DE LA PROVINCIA DE MANABI PARA LA OFERTA INTERNA EN TODO EL PAIS EL AÑO 2020  
(Unidad: 1.000 t)

|                            | Oferta Interna Nacional<br>*1 |         |         | Contribucion de La Provincia de Manabí<br>(Producción esperada en la Provincia) |       |       |       |
|----------------------------|-------------------------------|---------|---------|---------------------------------------------------------------------------------|-------|-------|-------|
|                            | 2000                          | 2010    | 2020    | (%)                                                                             | 2000  | 2010  | 2020  |
| <b>GRANOS Y CEREALES</b>   |                               |         |         |                                                                                 |       |       |       |
| (1) Arroz cáscara          | 840.0                         | 1,127.0 | 1,428.0 | 2                                                                               | 17.0  | 23.0  | 29.0  |
| (2) Frejol                 | 44.0                          | 50.0    | 55.0    | 7                                                                               | 3.1   | 3.5   | 3.9   |
| (3) Haba                   | 8.8                           | 8.5     | 7.6     | 1                                                                               | 0.1   | 0.1   | 0.1   |
| (4) Cebada                 | 59.0                          | 64.0    | 69.0    | -                                                                               | -     | -     | -     |
| (5) Maíz                   | 532.0                         | 651.0   | 773.0   | 16                                                                              | 85.0  | 104.0 | 124.0 |
| (6) Trigo                  | 502.0                         | 636.0   | 778.0   | -                                                                               | -     | -     | -     |
| <b>TUBERCULOS Y RAICES</b> |                               |         |         |                                                                                 |       |       |       |
| (7) Camote                 | 6.3                           | 5.1     | 6.1     | 24                                                                              | 1.5   | 1.2   | 1.5   |
| (8) Papa                   | 697.0                         | 808.0   | 904.0   | -                                                                               | -     | -     | -     |
| (9) Yuca                   | 354.0                         | 406.0   | 451.0   | 28                                                                              | 99.0  | 114.0 | 126.0 |
| <b>HORTALIZAS</b>          |                               |         |         |                                                                                 |       |       |       |
| (10) Ajo                   | 2.0                           | 2.0     | 2.0     | -                                                                               | -     | -     | -     |
| (11) Cebolla               | 42.0                          | 40.0    | 38.0    | -                                                                               | -     | -     | -     |
| (12) Col                   | 39.0                          | 39.0    | 41.0    | -                                                                               | -     | -     | -     |
| (13) Lechuga               | 8.0                           | 8.0     | 7.0     | -                                                                               | -     | -     | -     |
| (14) Melón                 | 18.0                          | 26.0    | 33.0    | 55                                                                              | 10.0  | 14.0  | 18.0  |
| (15) Pepinillo             | 8.0                           | 10.0    | 11.0    | 76                                                                              | 6.1   | 7.6   | 8.4   |
| (16) Pimiento              | 18.6                          | 32.3    | 47.3    | 32                                                                              | 6.0   | 10.3  | 15.1  |
| (17) Sandía                | 88.0                          | 133.0   | 187.0   | 58                                                                              | 51.0  | 77.0  | 108.0 |
| (18) Tomate                | 43.0                          | 47.0    | 51.0    | 13                                                                              | 5.6   | 6.1   | 6.6   |
| (19) Zapallo               | 33.0                          | 40.0    | 48.0    | 98                                                                              | 32.0  | 39.0  | 47.0  |
| <b>FRUTAS</b>              |                               |         |         |                                                                                 |       |       |       |
| (20) Aguacate              | 43.0                          | 49.0    | 56.0    | 9                                                                               | 3.9   | 4.4   | 5.0   |
| (21) Banano                | 1,812.0                       | 1,824.0 | 1,847.0 | 2                                                                               | 36.0  | 36.0  | 37.0  |
| (22) Guaba                 | 16.0                          | 19.0    | 22.0    | 18                                                                              | 2.9   | 3.4   | 4.0   |
| (23) Limón                 | 32.0                          | 39.0    | 46.0    | 30                                                                              | 10.0  | 12.0  | 14.0  |
| (24) Mandarina y Naranja   | 738.0                         | 952.0   | 1,177.0 | 15                                                                              | 111.0 | 143.0 | 177.0 |
| (25) Mango                 | 43.0                          | 53.0    | 63.0    | 20                                                                              | 9.0   | 11.0  | 13.0  |
| (26) Papaya                | 52.0                          | 68.0    | 83.0    | 23                                                                              | 12.0  | 16.0  | 19.0  |
| (27) Piña                  | 58.0                          | 58.0    | 59.0    | 5                                                                               | 2.9   | 2.9   | 3.0   |
| (28) Plátano               | 1,300.0                       | 1,490.0 | 1,770.0 | 28                                                                              | 364.0 | 417.0 | 496.0 |
| (29) Toronja               | 87.0                          | 107.0   | 127.0   | 21                                                                              | 18.0  | 22.0  | 27.0  |
| (30) Uva                   | 0.53                          | 0.43    | 0.51    | -                                                                               | -     | -     | -     |
| <b>OLEAGINOSAS</b>         |                               |         |         |                                                                                 |       |       |       |
| (31) Ajonjolí              | 0.44                          | 0.36    | 0.43    | 4                                                                               | 0.02  | 0.01  | 0.02  |
| (32) Coco                  | 113.0                         | 139.0   | 165.0   | 20                                                                              | 23.0  | 28.0  | 33.0  |
| (33) Higuera               | 3.2                           | 2.7     | 2.3     | 63                                                                              | 2.0   | 1.7   | 1.4   |
| (34) Palma                 | 740.0                         | 1,070.0 | 1,370.0 | 3                                                                               | 22.0  | 32.0  | 41.0  |
| (35) Maní en Grano         | 18.0                          | 22.0    | 26.0    | 38                                                                              | 6.8   | 8.4   | 9.9   |
| (36) Soya en Grano         | 489.0                         | 636.0   | 798.0   | 0.1                                                                             | 0.5   | 0.6   | 0.8   |
| <b>FIBRAS</b>              |                               |         |         |                                                                                 |       |       |       |
| (37) Abacá                 | 16.4                          | 16.4    | 16.4    | 0.2                                                                             | 0.03  | 0.03  | 0.03  |
| (38) Algodón en rama       | 45.0                          | 56.0    | 66.0    | 36                                                                              | 16.0  | 20.0  | 24.0  |
| (39) Cabuya                | 5.4                           | 5.4     | 5.4     | 33                                                                              | 1.8   | 1.8   | 1.8   |
| <b>BEBIDAS</b>             |                               |         |         |                                                                                 |       |       |       |
| (40) Cacao en grano        | 91.0                          | 96.0    | 100.0   | 14                                                                              | 13.0  | 13.0  | 14.0  |
| (41) Café en grano         | 106.0                         | 110.0   | 115.0   | 28                                                                              | 29.7  | 30.8  | 32.2  |
| (42) Té                    | 19.0                          | 29.0    | 41.0    | -                                                                               | -     | -     | -     |
| <b>OTROS CULTIVOS</b>      |                               |         |         |                                                                                 |       |       |       |
| (43) Achiote               | 1.4                           | 1.6     | 1.9     | 55                                                                              | 0.8   | 0.9   | 1.0   |
| (44) Caña para azúcar      | 3,390.0                       | 3,710.0 | 4,270.0 | -                                                                               | -     | -     | -     |
| (45) Caña/otros usos       | 3,530.0                       | 3,960.0 | 4,270.0 | 2                                                                               | 71.0  | 79.0  | 85.0  |
| (46) Marigold              | 0.15                          | 0.18    | 0.21    | 87                                                                              | 0.13  | 0.16  | 0.18  |
| (47) Tabaco en Bruto       | 4.9                           | 6.1     | 7.3     | -                                                                               | -     | -     | -     |
| <b>GANADERIA*2</b>         |                               |         |         |                                                                                 |       |       |       |
| (48) Carne de Bovinos      | 135.0                         | 169.0   | 203.0   | 16                                                                              | 22.0  | 27.0  | 32.0  |
| (49) Leche (million lt)    | 1,180.0                       | 1,440.0 | 1,710.0 | 16                                                                              | 189.0 | 230.0 | 274.0 |

\*1 Ver tabla 4.2

\*2 No se cuenta con datos para la proyección de carne de ganado vacuno y leche, por lo tanto se por lo por lotanto se estimó en base al rendimiento obtenido por cabeza de ganado y por hectarea de pasto en el país.

Tabla 4.8 META DE LA PRODUCCION Y TAMAÑO DEL PROYECTO DE DESARROLLO - CON EL PLAN DE DESARROLLO DE LOS RECURSOS HÍDRICOS(2020)

| Cultivos/<br>Ganaderías                                                                                                                          | Tamaño del proyecto       |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  | Total |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------|----------------------|----------------|----------------------|----------------------|--------------------|----------------------|----------------------|----------------|----------------------|-----------------|---------------|------------------|-------|-------|
|                                                                                                                                                  | Contribución oferta yecto | Producción Balance Meta | Con Riego - Invierno |                |                      |                      | Con Riego - Verano |                      |                      |                | Sin Riego            |                 |               |                  | Total |       |
|                                                                                                                                                  |                           |                         | Rendim. Unit. (t/ha) | Área (1.000ha) | Producción (1.000 t) | Rendim. Unit. (t/ha) | Área (1.000ha)     | Producción (1.000 t) | Rendim. Unit. (t/ha) | Área (1.000ha) | Producción (1.000 t) | Riego (1.000ha) | Con Sin Riego | Producción Total |       |       |
| (1.000 t)(1.000 t)(1.000 t)(1.000 t)(1.000ha)(1.000 t)(1.000 t)(1.000ha)(1.000 t)(1.000ha)(1.000ha)(1.000ha)(1.000ha)(1.000ha)(1.000ha)(1.000ha) |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| <b>GRANOS Y CEREALES</b>                                                                                                                         |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 1 Arroz cáscara                                                                                                                                  | 29.0                      | 12.4                    | -16.6                | 144.0          | 4.5                  | 16.0                 | 72.0               | -                    | -                    | -              | -                    | 16.0            | -             | -                | 16.0  | 32.0  |
| 2 Frejol                                                                                                                                         | 3.9                       | 1.4                     | -2.5                 | 3.9            | -                    | -                    | -                  | -                    | 1.2                  | 3.2            | 3.8                  | 3.8             | -             | 3.2              | 3.2   | 7.7   |
| 3 Haba                                                                                                                                           | 0.1                       | 1.0                     | 0.9                  | 0.1            | -                    | -                    | -                  | -                    | 1.6                  | 0.1            | 0.2                  | 0.2             | -             | 0.1              | 0.1   | 0.4   |
| 4 Maíz                                                                                                                                           | 124.0                     | 99.0                    | -25.0                | 124.0          | 4.5                  | 9.5                  | 42.8               | -                    | -                    | 1.5            | 54.1                 | 81.2            | 9.5           | 54.1             | 63.6  | 40.6  |
| <b>TUBERCULOS Y RAICES</b>                                                                                                                       |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 5 Camote                                                                                                                                         | 1.5                       | -                       | -1.5                 | 1.5            | -                    | -                    | -                  | -                    | 10.6                 | 0.1            | 1.1                  | 1.1             | -             | 0.1              | 0.1   | 0.2   |
| 6 Yuca                                                                                                                                           | 126.0                     | 128.0                   | 2.0                  | 126.0          | -                    | -                    | -                  | -                    | 11.0                 | 11.5           | 126.5                | 126.5           | -             | 11.5             | 11.5  | 5.9   |
| <b>HORTALIZAS</b>                                                                                                                                |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 7 Melón                                                                                                                                          | 18.0                      | 6.0                     | -12.0                | 18.0           | -                    | -                    | -                  | -                    | 13.0                 | 1.0            | 13.0                 | 18.0            | -             | -                | 0.5   | 0.5   |
| 8 Pepinillo                                                                                                                                      | 8.4                       | 3.9                     | -4.5                 | 8.4            | -                    | -                    | -                  | -                    | 13.0                 | 0.6            | 7.8                  | 7.8             | -             | -                | 0.6   | 0.6   |
| 9 Pimiento                                                                                                                                       | 15.1                      | 1.7                     | -13.4                | 15.1           | -                    | -                    | -                  | -                    | 5.6                  | 0.2            | 1.1                  | 14.9            | -             | -                | 0.2   | 0.3   |
| 10 Sandía                                                                                                                                        | 108.0                     | 18.2                    | -89.8                | 108.0          | -                    | -                    | -                  | -                    | 15.0                 | 6.5            | 97.5                 | 108.7           | -             | -                | 0.8   | 7.3   |
| 11 Tomate                                                                                                                                        | 6.6                       | 4.6                     | -2.0                 | 6.6            | -                    | -                    | -                  | -                    | 25.0                 | 0.2            | 5.0                  | 6.3             | -             | -                | 0.2   | 0.4   |
| 12 Zapallo                                                                                                                                       | 47.0                      | 20.4                    | -26.6                | 47.0           | -                    | -                    | -                  | -                    | 20.0                 | 2.0            | 40.0                 | 47.2            | -             | -                | 0.6   | 2.6   |
| <b>FRUTAS</b>                                                                                                                                    |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 13 Aguacate                                                                                                                                      | 5.0                       | 5.1                     | 0.1                  | 5.0            | -                    | -                    | -                  | -                    | 10.1                 | 0.5            | 5.1                  | 5.1             | -             | -                | 0.5   | 0.5   |
| 14 Banano                                                                                                                                        | 37.0                      | 106.0                   | 69.0                 | 37.0           | -                    | -                    | -                  | -                    | 24.0                 | 1.5            | 36.0                 | 36.0            | -             | -                | 1.5   | 2.1   |
| 15 Guava                                                                                                                                         | 4.0                       | 2.0                     | -2.0                 | 4.0            | -                    | -                    | -                  | -                    | 6.2                  | 0.6            | 3.7                  | 3.7             | -             | -                | 0.6   | 0.6   |
| 16 Citricos                                                                                                                                      | 218.0                     | 78.6                    | -139.4               | 218.0          | 30.0                 | 6.5                  | 195.0              | -                    | 13.8                 | 1.7            | 23.5                 | 218.5           | 6.5           | 1.7              | 8.2   | 4.8   |
| - Limón                                                                                                                                          | 14.0                      | 9.4                     | -5.6                 | 14.0           | -                    | -                    | -                  | -                    | -                    | -              | -                    | -               | -             | -                | -     | -     |
| - Mandarina y Naranja                                                                                                                            | 177.0                     | 65.0                    | -112.0               | 177.0          | -                    | -                    | -                  | -                    | -                    | -              | -                    | -               | -             | -                | -     | -     |
| - Toronja                                                                                                                                        | 27.0                      | 5.2                     | -21.8                | 27.0           | -                    | -                    | -                  | -                    | -                    | -              | -                    | -               | -             | -                | -     | -     |
| 17 Mango                                                                                                                                         | 13.0                      | 4.4                     | -8.6                 | 13.0           | -                    | -                    | -                  | -                    | 4.0                  | 3.3            | 13.2                 | 13.2            | -             | -                | 3.3   | 0.4   |
| 18 Papaya                                                                                                                                        | 19.0                      | 2.2                     | -16.8                | 19.0           | -                    | -                    | -                  | -                    | 11.0                 | 1.7            | 18.7                 | 18.7            | -             | -                | 1.7   | 0.3   |
| 19 Piña                                                                                                                                          | 3.0                       | 4.9                     | 1.9                  | 3.0            | -                    | -                    | -                  | -                    | 16.2                 | 0.2            | 3.2                  | 3.2             | -             | -                | 0.2   | 0.3   |
| 20 Plátano                                                                                                                                       | 496.0                     | 342.0                   | -154.0               | 496.0          | 25.0                 | 9.0                  | 225.0              | -                    | 12.0                 | 22.5           | 270.0                | 495.0           | 9.0           | 22.5             | 31.5  | 18.7  |
| <b>OLEAGINOSAS</b>                                                                                                                               |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 21 Ajonjolí                                                                                                                                      | 0.02                      | -                       | -0.02                | 0.02           | -                    | -                    | -                  | -                    | 1.0                  | 0.02           | 0.02                 | 0.02            | -             | -                | 0.02  | 0.01  |
| 22 Coco                                                                                                                                          | 33.0                      | 49.2                    | 16.2                 | 33.0           | -                    | -                    | -                  | -                    | 12.0                 | 2.8            | 33.6                 | 33.6            | -             | -                | 2.8   | 0.9   |
| 23 Higuera                                                                                                                                       | 1.4                       | 1.5                     | 0.1                  | 1.4            | -                    | -                    | -                  | -                    | 0.7                  | 2.0            | 1.4                  | 1.4             | -             | -                | 2.0   | 1.7   |
| 24 Palma                                                                                                                                         | 41.0                      | 16.0                    | -25.0                | 41.0           | -                    | -                    | -                  | -                    | 16.0                 | 2.6            | 41.6                 | 41.6            | -             | -                | 2.6   | 2.5   |
| 25 Maní en Grano                                                                                                                                 | 9.9                       | 5.7                     | -4.2                 | 9.9            | -                    | -                    | -                  | -                    | 1.3                  | 0.7            | 0.9                  | 0.9             | -             | -                | 0.7   | 1.3   |
| 26 Soya en Grano                                                                                                                                 | 0.8                       | 0.6                     | -0.2                 | 0.8            | -                    | -                    | -                  | -                    | 1.8                  | 0.5            | 0.9                  | 0.9             | -             | -                | 0.5   | 0.04  |
| <b>FIBRAS</b>                                                                                                                                    |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 27 Abacá                                                                                                                                         | 0.03                      | 0.2                     | 0.2                  | 0.03           | -                    | -                    | -                  | -                    | 1.10                 | 0.03           | 0.03                 | 0.03            | -             | -                | 0.03  | 0.03  |
| 28 Algodón en rama                                                                                                                               | 24.0                      | 6.9                     | -17.1                | 24.0           | 2.0                  | 10.0                 | 20.0               | -                    | 1.4                  | 2.9            | 4.06                 | 24.1            | 10.0          | -                | 12.9  | 5.9   |
| 29 Tabaca                                                                                                                                        | 1.3                       | 3.4                     | 1.6                  | 1.3            | -                    | -                    | -                  | -                    | 6.7                  | 0.3            | 2.0                  | 2.0             | -             | -                | 0.3   | 0.7   |
| <b>BEBIDA</b>                                                                                                                                    |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 30 Cacao en grano                                                                                                                                | 14.0                      | 11.3                    | -2.7                 | 14.0           | -                    | -                    | -                  | -                    | 0.30                 | 47.0           | 14.1                 | 14.1            | -             | -                | 47.0  | 38.5  |
| 31 Café en grano                                                                                                                                 | 32.2                      | 47.3                    | 15.1                 | 32.2           | -                    | -                    | -                  | -                    | 0.34                 | 95.0           | 32.3                 | 32.3            | -             | -                | 95.0  | 138.9 |
| <b>OTROS CULTIVOS</b>                                                                                                                            |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 32 Achioté                                                                                                                                       | 1.0                       | 0.4                     | -0.6                 | 1.0            | -                    | -                    | -                  | -                    | 0.38                 | 2.6            | 1.0                  | 1.0             | -             | -                | 2.6   | 0.8   |
| 33 Caña/otros usos                                                                                                                               | 85.0                      | 45.1                    | -39.9                | 85.0           | -                    | -                    | -                  | -                    | 41.0                 | 2.1            | 86.1                 | 86.1            | -             | -                | 2.1   | 1.3   |
| 34 Otros cultivos                                                                                                                                | -                         | -                       | -                    | -              | -                    | -                    | -                  | -                    | 2.0                  | 2.0            | -                    | -               | -             | -                | 2.0   | 4.2   |
| <b>(SUB-TOTAL)</b>                                                                                                                               |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| PASTOS                                                                                                                                           | -                         | -                       | -                    | -              | 120.0                | 3.0                  | 360.0              | -                    | 263.9                | 927.0          | -                    | -               | 51.0          | 263.9            | 314.9 | 280.0 |
| <b>Total</b>                                                                                                                                     |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |
| 54.0 1,190.9 1,244.9 1,280.4 1,060.0                                                                                                             |                           |                         |                      |                |                      |                      |                    |                      |                      |                |                      |                 |               |                  |       |       |

Tabla 4.9 AREA POTENCIAL BRUTA PARA CADA ESQUEMA DE RIEGO

(Unidad: ha)

| Ubicación del<br>Area de riego | Codig<br>de<br>Area<br>*2 | Area potencial bruta de riego*3 |        |       |           |            |       |       |           | Total  |
|--------------------------------|---------------------------|---------------------------------|--------|-------|-----------|------------|-------|-------|-----------|--------|
|                                |                           | Por Gravedad                    |        |       |           | Por Bombeo |       |       |           |        |
|                                |                           | A                               | B      | C     | Sub-total | A          | B     | C     | Sub-total |        |
| Chebe                          | -1                        | 170                             | -      | -     | 170       | -          | 2,090 | -     | 2,090     | 2,260  |
| Pedernales                     | -2                        | 280                             | 800    | 680   | 1,760     | -          | 80    | 1,280 | 1,360     | 3,120  |
| Cuaque                         | -1                        | 680                             | 110    | 30    | 820       | -          | -     | -     | -         | 820    |
| 10 de Agosto                   | -2                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Don Juan                       | -1                        | 1,170                           | -      | 40    | 1,210     | -          | -     | -     | -         | 1,210  |
| Jama                           | -1                        | 790                             | 740    | -     | 1,530     | -          | -     | -     | -         | 1,530  |
| Eloy Alfaro                    | -2                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Mariano                        | -3                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Muchaco                        | -1                        | 930                             | -      | -     | 930       | -          | -     | -     | -         | 930    |
| Briceno                        | -1                        | 3,400                           | 210    | 290   | 3,900     | -          | -     | -     | -         | 3,900  |
| San Ramon                      | -1                        | 1,240                           | -      | -     | 1,240     | 270        | 1,170 | 570   | 2,010     | 3,250  |
| San Andres                     | -2                        | 2,760                           | 20     | 200   | 2,980     | -          | -     | -     | -         | 2,980  |
| Carrizal-Chone                 | 1)                        | 13,460                          | 3,740  | -     | 17,200    | -          | -     | -     | -         | 17,200 |
| Amarillos                      | 2)                        | 720                             | 290    | -     | 1,010     | -          | -     | -     | -         | 1,010  |
| Guarango                       | 3)                        | 1,710                           | 180    | -     | 1,890     | -          | -     | -     | -         | 1,890  |
| Junin                          | -4                        | 350                             | 220    | -     | 570       | -          | -     | -     | -         | 570    |
| Rio Chico                      | 1)                        | 2,080                           | 50     | 40    | 2,170     | -          | -     | -     | -         | 2,170  |
| Pechiche-Pasaje                | 2)                        | 1,060                           | -      | -     | 1,060     | -          | -     | -     | -         | 1,060  |
| Santa Ana                      | 1)                        | 3,650                           | 560    | -     | 4,210     | -          | -     | -     | -         | 4,210  |
| Mejia                          | 2)                        | 1,600                           | -      | -     | 1,600     | -          | -     | -     | -         | 1,600  |
| Ceibal-Guayaba                 | 3)                        | 2,720                           | 3,520  | -     | 6,240     | -          | -     | -     | -         | 6,240  |
| P.D.Pierda-La Anoa             | -3                        | 2,260                           | -      | 210   | 2,470     | -          | -     | -     | -         | 2,470  |
| Rio de Cana                    | 11                        | 840                             | 500    | -     | 1,340     | -          | -     | -     | -         | 1,340  |
| Sancan-Cantagallo              | 12                        | 2,520                           | 8,200  | 4,000 | 14,720    | -          | -     | -     | -         | 14,720 |
| Joa                            | -1                        | 1,070                           | -      | -     | 1,070     | -          | -     | -     | -         | 1,070  |
| Salaite                        | -1                        | 80                              | -      | -     | 80        | -          | -     | -     | -         | 80     |
| Julcuy                         | -1                        | 780                             | -      | -     | 780       | -          | -     | -     | -         | 780    |
| Ayampe                         | -1                        | 150                             | -      | 80    | 230       | -          | -     | -     | -         | 230    |
| Molina                         | -1                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Lazaro                         | -1                        | 570                             | -      | -     | 570       | 20         | 380   | 20    | 420       | 990    |
| Flavio Alfaro                  | -2                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Solano                         | -3                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Tigre                          | -4                        | -                               | -      | 640   | 640       | -          | -     | 1,440 | 1,440     | 2,080  |
| La Union                       | -1                        | 600                             | 130    | -     | 730       | 670        | 890   | 810   | 2,370     | 3,100  |
| Puca                           | -4                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Noboa                          | -2                        | 1,530                           | -      | -     | 1,530     | 70         | -     | 1,030 | 1,100     | 2,630  |
| Olmedo *1                      | -3                        | 1,770                           | 820    | -     | 2,590 *   | -          | -     | -     | -         | 2,590  |
| Lascano *1                     | -1                        | 3,030                           | 230    | -     | 3,260 *   | -          | -     | -     | -         | 3,260  |
| Campozano                      | -4                        | -                               | -      | -     | -         | -          | -     | -     | -         | -      |
| Pajan                          | -2                        | 1,600                           | -      | 30    | 1,630     | -          | -     | -     | -         | 1,630  |
| Banchal                        | -3                        | 1,660                           | -      | 120   | 1,780     | -          | -     | -     | -         | 1,780  |
| Total                          |                           | 57,230                          | 20,320 | 6,360 | 83,910    | 1,030      | 4,610 | 5,150 | 10,790    | 94,700 |

\*1 Incluido area de riego de ubicación fuera de la Provincia.

Olmedo A: 1.120 ha B: 820 ha

Lascano A: 1.870 ha

\*2 La primera cifra corresponde al N° de Cuenca o Unidad de Planificación.

\*3 Para explicación de A, B y C; ver tabla 3.5.

Tabla 4.10 AREA POTENCIAL NETA PARA CADA ESQUEMA DE RIEGO

(Unidad: ha)

| Ubicación del<br>area de riego | Area<br>ode<br>No.<br>*2 | Area Potencial Neta de Riego |        |       |           |            |       |       |           | Total  |
|--------------------------------|--------------------------|------------------------------|--------|-------|-----------|------------|-------|-------|-----------|--------|
|                                |                          | Por Gravedad                 |        |       |           | Por Bombeo |       |       |           |        |
|                                |                          | A                            | B      | C     | Sub-total | A          | B     | C     | Sub-total |        |
| Chebe                          | -1                       | 150                          | -      | -     | 150       | -          | 1,450 | -     | 1,450     | 1,600  |
| Pedernales                     | -2                       | 230                          | 570    | 200   | 1,000     | -          | 60    | 390   | 450       | 1,450  |
| Cuaque                         | -1                       | 560                          | 80     | 10    | 650       | -          | -     | -     | -         | 650    |
| 10 de Agosto                   | -2                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Don Juan                       | -1                       | 940                          | -      | 10    | 950       | -          | -     | -     | -         | 950    |
| Jama                           | -1                       | 630                          | 520    | -     | 1,150     | -          | -     | -     | -         | 1,150  |
| Eloy Alfaro                    | -2                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Mariano                        | -3                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Muchaco                        | -1                       | 750                          | -      | -     | 750       | -          | -     | -     | -         | 750    |
| Briceno                        | -1                       | 2,760                        | 150    | 90    | 3,000     | -          | -     | -     | -         | 3,000  |
| San Ramon                      | -1                       | 1,000                        | -      | -     | 1,000     | 220        | 810   | 170   | 1,200     | 2,200  |
| San Andres                     | -2                       | 2,180                        | 10     | 60    | 2,250     | -          | -     | -     | -         | 2,250  |
| Carrizal-Chone                 | 1)                       | 12,060                       | 2,940  | -     | 15,000    | -          | -     | -     | -         | 15,000 |
| Amarillos                      | 2)                       | 740                          | 260    | -     | 1,000     | -          | -     | -     | -         | 1,000  |
| Guarango                       | 3)                       | 1,370                        | 130    | -     | 1,500     | -          | -     | -     | -         | 1,500  |
| Junin                          | -4                       | 290                          | 160    | -     | 450       | -          | -     | -     | -         | 450    |
| Rio Chico                      | 1)                       | 1,650                        | 40     | 10    | 1,700     | -          | -     | -     | -         | 1,700  |
| Pechiche-Pasaje                | 2)                       | 850                          | -      | -     | 850       | -          | -     | -     | -         | 850    |
| Santa Ana                      | 1)                       | 2,910                        | 390    | -     | 3,300     | -          | -     | -     | -         | 3,300  |
| Mejia                          | 2)                       | 1,250                        | -      | -     | 1,250     | -          | -     | -     | -         | 1,250  |
| Ceibal-Guayaba                 | 3)                       | 2,190                        | 2,460  | -     | 4,650     | -          | -     | -     | -         | 4,650  |
| P.D.Pierda-La Anoa             | -3                       | 1,790                        | -      | 60    | 1,850     | -          | -     | -     | -         | 1,850  |
| Rio de Cana                    | 11                       | 660                          | 340    | -     | 1,000     | -          | -     | -     | -         | 1,000  |
| Sancan-Cantagallo              | 12                       | 2,040                        | 5,760  | 1,200 | 9,000     | -          | -     | -     | -         | 9,000  |
| Joa                            | -1                       | 850                          | -      | -     | 850       | -          | -     | -     | -         | 850    |
| Salaite                        | -1                       | 100                          | -      | -     | 100       | -          | -     | -     | -         | 100    |
| Julcuy                         | -1                       | 600                          | -      | -     | 600       | -          | -     | -     | -         | 600    |
| Ayampe                         | -1                       | 130                          | -      | 20    | 150       | -          | -     | -     | -         | 150    |
| Molina                         | -1                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Lazaro                         | -1                       | 450                          | -      | -     | 450       | 20         | 270   | 10    | 300       | 750    |
| Flavio Alfaro                  | -2                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Solano                         | -3                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Tigre                          | -4                       | -                            | -      | 200   | 200       | -          | -     | 450   | 450       | 650    |
| La Union                       | -1                       | 460                          | 90     | -     | 550       | 540        | 620   | 240   | 1,400     | 1,950  |
| Puca                           | -4                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Noboa                          | -2                       | 1,200                        | -      | -     | 1,200     | 60         | -     | 340   | 400       | 1,600  |
| Olmedo *1                      | -3                       | 1,380                        | 570    | -     | 1,950 *   | -          | -     | -     | -         | 1,950  |
| Lascano *1                     | -1                       | 2,440                        | 160    | -     | 2,600 *   | -          | -     | -     | -         | 2,600  |
| Campoazano                     | -4                       | -                            | -      | -     | -         | -          | -     | -     | -         | -      |
| Pajan                          | -2                       | 1,290                        | -      | 10    | 1,300     | -          | -     | -     | -         | 1,300  |
| Banchal                        | -3                       | 1,310                        | -      | 40    | 1,350     | -          | -     | -     | -         | 1,350  |
| Total                          |                          | 47,210                       | 14,630 | 1,910 | 63,750    | 840        | 3,210 | 1,600 | 5,650     | 69,400 |

\*1 Incluido el area de riego fuera de la Provincia.

Olmedo A: 880 ha B: 570 ha

Lascano A: 1.500 ha

\*2 La primera cifra corresponde al N° de la Cuenca o Unidad de Planificación.

Nota: Factor de conversión de área bruta a neta: A = 80% B = 70% C = 30%

Para explicación de A, B y C; ver tabla 3.5.

Tabla 4.11 USO ACTUAL DEL SUELO PARA ESQUEMA DE RIEGO

(Unidad: ha)

| Ubicación del<br>Area de riego | Codigo<br>de<br>Area*2 | Area<br>fisica<br>total | Area<br>de<br>Montes | Cultivo<br>ciclo<br>corto | Cultivos<br>Perennes | Pastizale     |
|--------------------------------|------------------------|-------------------------|----------------------|---------------------------|----------------------|---------------|
| Chebe                          | 1-1                    | 1,500                   | 750                  | -                         | 150                  | 600           |
| Pedernales                     | 1-2                    | 1,450                   | -                    | -                         | -                    | 1,450         |
| Cuage                          | 2-1                    | 650                     | -                    | -                         | -                    | 650           |
| Don Juan                       | 3-1                    | 950                     | -                    | 380                       | -                    | 570           |
| Jama                           | 4-1                    | 1,150                   | -                    | 1,150                     | -                    | -             |
| Muchaco                        | 5-1                    | 750                     | -                    | -                         | -                    | 750           |
| Briceno                        | 6-1                    | 3,000                   | -                    | 70                        | 110                  | 2,820         |
| San Ramon                      | 8-1                    | 1,500                   | -                    | 30                        | 710                  | 760           |
| San Andres                     | 8-2                    | 2,250                   | -                    | 100                       | 1,450                | 700           |
| Carrizal-Chone                 | 3(1)                   | 15,000                  | -                    | 1,500                     | 1,800                | 11,700        |
| Amarillos                      | 3(2)                   | 1,000                   | -                    | 250                       | 250                  | 500           |
| Guarango                       | 3(3)                   | 1,500                   | -                    | 1,500                     | -                    | -             |
| Rio Chico                      | 1(1)                   | 1,700                   | -                    | 430                       | 430                  | 840           |
| Pechiche-Pasaje                | 1(2)                   | 850                     | -                    | 170                       | 470                  | 210           |
| Santa Ana                      | 2(1)                   | 3,300                   | -                    | 830                       | 830                  | 1,640         |
| Mejia                          | 2(2)                   | 1,250                   | -                    | 310                       | 310                  | 630           |
| Ceibal-Guayaba                 | 2(3)                   | 4,650                   | -                    | 1,160                     | 1,160                | 2,330         |
| Junin                          | 8-4                    | 450                     | -                    | -                         | -                    | 450           |
| P.D.Pierda-La Anoa             | 9-3                    | 1,000                   | -                    | 1,000                     | -                    | -             |
| Rio de Caña                    | 1-11                   | 1,000                   | 520                  | 70                        | 20                   | 390           |
| Sanca-Cantagallo               | 1-12                   | 9,000                   | 6110                 | 2,750                     | 70                   | 70            |
| Joa                            | 13-1                   | 850                     | 250                  | 600                       | -                    | -             |
| Salafte                        | 14-1                   | 100                     | -                    | 100                       | -                    | -             |
| Julcuy                         | 17-1                   | 600                     | 600                  | -                         | -                    | -             |
| Ayampe                         | 16-1                   | 150                     | 150                  | -                         | -                    | -             |
| La Union                       | 20-1                   | 2,000                   | -                    | -                         | 2,000                | -             |
| Noboa                          | 20-2                   | 1,600                   | -                    | -                         | 640                  | 960           |
| Olmedo *1                      | 20-3                   | 500                     | -                    | -                         | -                    | 500           |
| Lascano *1                     | 21-1                   | 1,100                   | -                    | -                         | 220                  | 880           |
| Pajan                          | 21-2                   | 1,300                   | -                    | -                         | -                    | 1,300         |
| Banchal                        | 21-3                   | 1,350                   | -                    | -                         | -                    | 1,350         |
| <b>Total</b>                   |                        | <b>64,350</b>           | <b>8,380</b>         | <b>12,400</b>             | <b>10,620</b>        | <b>32,950</b> |

\* Area de riego de ubicación solo dentro de la Provincia.

\* La primera cifra corresponde al N° de la Cuenca o Unidad de Planificación.

Tabla 4.12 PRACTICAS PROPUESTAS DE CULTIVO E INSUMOS DE FINCA (1/4)  
REQUERIDOS PARA LOS PRINCIPALES CULTIVOS

ARROZ

|                           |                                              |
|---------------------------|----------------------------------------------|
| Rendimiento Meta          | : 4,5 tons/ha                                |
| Variedades                | : INIAP 7, 10, 415 y CICA-8                  |
| Período vegetativo        | : 135 días                                   |
| Aplicación de semilla     | : 100 kg/ha                                  |
| Método de siembra         | : Alboleo                                    |
| Período en vivero         | : -                                          |
| Densidad de sembrado      | : -                                          |
| Fertilización             | : N 90 kg/ha, P205 30 kg/ha,<br>K20 10 kg/ha |
| Aplicación química        |                                              |
| Insecticidas y fungicidas |                                              |
| - Líquido                 | : 2,4 lt/ha                                  |
| - Polvo/granular          | : -                                          |
| Hervicidas                |                                              |
| - Líquido                 | : 3,8 lt/ha                                  |
| - Polvo/granular          | : -                                          |
| Mano de obra              | : 83 hombre-día/ha                           |
| Preparación de la tierra  | : Tractor                                    |

MAIZ

|                           |                                              |
|---------------------------|----------------------------------------------|
| Rendimiento Meta          | : 4,5 tons/ha                                |
| Variedades                | : INIAP series                               |
| Período vegetativo        | : 120 days                                   |
| Aplicación de semilla     | : 15 kg/ha                                   |
| Método de siembra         | : Alboleo                                    |
| Período en vivero         | : -                                          |
| Densidad de sembrado      | : 25 x 80 cm (50.000 plantas/ha)             |
| Fertilización             | : N 50 kg/ha, P205 30 kg/ha,<br>K20 10 kg/ha |
| Aplicación química        |                                              |
| Insecticidas y fungicidas |                                              |
| - Líquido                 | : 2,9 lt/ha                                  |
| - Polvo/granular          | : -                                          |
| Hervicidas                |                                              |
| - Líquido                 | : 2 lt/ha                                    |
| - Polvo/granular          | : -                                          |
| Mano de obra              | : 50 hombre-día/ha                           |
| Preparación de la tierra  | : Tractor                                    |

ALGODON

|                           |                                                                               |
|---------------------------|-------------------------------------------------------------------------------|
| Rendimiento Meta          | : 2 tons/ha                                                                   |
| Variedades                | : Coker 5110                                                                  |
| Período vegetativo        | : 150 days                                                                    |
| Aplicación de semilla     | : 7 kg/ha                                                                     |
| Método de siembra         | : Direct seeding                                                              |
| Período en vivero         | : -                                                                           |
| Densidad de sembrado      | : 1,0 x 0,4 m<br>2 plantas por sitio despues<br>del raleo (50.000 plantas/ha) |
| Fertilización             | : N 90 kg/ha, P205 30 kg/ha,<br>K20 10 kg/ha                                  |
| Aplicación química        |                                                                               |
| Insecticidas y fungicidas |                                                                               |
| - Líquido                 | : 4,2 lt/ha                                                                   |
| - Polvo/granular          | : -                                                                           |
| Hervicidas                |                                                                               |
| - Líquido                 | : 2 lt/ha                                                                     |
| - Polvo/granular          | : 1 kg/ha (Gesagard)                                                          |
| Mano de obra              | : 110 hombre-día/ha                                                           |
| Preparación de la tierra  | : Tractor                                                                     |

Fuente: INIAP, Manual Agrícola de Los Principales Cultivos del Ecuador, 1987.



Tabla 4.12 PRÁCTICAS PROPUESTAS DE CULTIVO E INSUMOS DE FINCA (2/4)  
REQUERIDOS PARA LOS PRINCIPALES CULTIVOS

#### MANI

|                           |                                                      |
|---------------------------|------------------------------------------------------|
| Rendimiento Meta          | : 1.8 tons/ha                                        |
| Variedades                | : Tipo Spanish "48-115-B"<br>Tipo Valencia "Boliche" |
| Período vegetativo        | : 120 days                                           |
| Aplicación de semilla     | : 60 kg/ha                                           |
| Método de siembra         | : Alboleo                                            |
| Período en vivero         | : -                                                  |
| Densidad de sembrado      | : 0,6 x 0,15 m                                       |
| Fertilization             | : No es exigente en fertilización.                   |
| Aplicación química        |                                                      |
| Insecticidas y fungicidas |                                                      |
| - Líquido                 | : 1,4 lt/ha                                          |
| - Polvo/granular          | : 0,45 kg/ha (Vitavax)                               |
| Hervicidas                |                                                      |
| - Líquido                 | : 2 lt/ha                                            |
| - Polvo/granular          | : 1 kg/ha (Gesagard)                                 |
| Mano de obra              | : 87 man-days/ha                                     |
| Preparación de la tierra  | : Tractor                                            |

#### SOYA

|                           |                                                          |
|---------------------------|----------------------------------------------------------|
| Rendimiento Meta          | : 1,8 tons/ha                                            |
| Variedades                | : INIAP-302, INIAP-303                                   |
| Período vegetativo        | : 115-120 days                                           |
| Aplicación de semilla     | : 45 kg/ha                                               |
| Método de siembra         | : Alboleo                                                |
| Período en vivero         | : -                                                      |
| Densidad de sembrado      | : Distancia entre hileras 0,45 m<br>(200.000 plantas/ha) |
| Fertilization             | : -                                                      |
| Aplicación química        |                                                          |
| Insecticidas y fungicidas |                                                          |
| - Líquido                 | : 1,3 lt/ha                                              |
| - Polvo/granular          | : 0,45 kg/ha (Incolante)                                 |
| Hervicidas                |                                                          |
| - Líquido                 | : 2 lt/ha                                                |
| - Polvo/granular          | : 1 kg/ha (Gesagard)                                     |
| Mano de obra              | : 74 man-days/ha                                         |
| Preparación de la tierra  | : Tractor                                                |

#### MELON

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| Rendimiento Meta          | : 13,0 tons/ha                                        |
| Variedades                | : Edisto 47, Honey Dew                                |
| Período vegetativo        | : 90 days                                             |
| Aplicación de semilla     | : 0,45 kg/ha                                          |
| Método de siembra         | : Alboleo                                             |
| Período en vivero         | : -                                                   |
| Densidad de sembrado      | : 1,5 x 0,75 m; 2 plantas/hill<br>(18.000 plantas/ha) |
| Fertilización             | : N 76 kg/ha, P205 41 kg/ha,<br>K20 14 kg/ha          |
| Aplicación química        |                                                       |
| Insecticidas y fungicidas |                                                       |
| - Líquido                 | : 3,5 lt/ha                                           |
| - Polvo/granular          | : 22,6 kg/ha (Oxiclor, Topsin)                        |
| Hervicidas                |                                                       |
| - Líquido                 | : -                                                   |
| - Polvo/granular          | : -                                                   |
| Mano de obra              | : 98 hombre-día/ha                                    |
| Preparación de la tierra  | : Tractor                                             |

Fuente: INIAP, Manual Agrícola de Los Principales Cultivos  
del Ecuador, 1987.

Tabla 4.12 PRACTICAS PROPUESTAS DE CULTIVO E INSUMOS DE FINCA (3/4)  
REQUERIDOS PARA LOS PRINCIPALES CULTIVOS

PIMIENTO

|                           |                                                   |
|---------------------------|---------------------------------------------------|
| Rendimiento Meta          | : 6 tons/ha                                       |
| Variedades                | : Florida VR-2                                    |
| Período vegetativo        | : 120 días                                        |
| Aplicación de semilla     | : 0,9 kg/ha                                       |
| Método de siembra         | : Transplante                                     |
| Período en vivero         | : -                                               |
| Densidad de sembrado      | : 0,9 x 0,3-0,4 m<br>(27.000 - 37.000 plantas/ha) |
| Fertilización             | : N 83 kg/ha                                      |
| Aplicación química        |                                                   |
| Insecticidas y fungicidas |                                                   |
| - Líquido                 | : 7 lt/ha (Mavrik, Monitor)                       |
| - Polvo/granular          | : 22,6 kg/ha (Vitavax, Tricarbamix)               |
| Hervicidas                |                                                   |
| - Líquido                 | : -                                               |
| - Polvo/granular          | : -                                               |
| Mano de obra              | : 246 hombre-día/ha                               |
| Preparación de la tierra  | : Tractor                                         |

SANDIA

|                           |                                              |
|---------------------------|----------------------------------------------|
| Rendimiento Meta          | : 15 tons/ha                                 |
| Variedades                | : Charleston Gray, Royal Charleston          |
| Período vegetativo        | : 110-120 días                               |
| Aplicación de semilla     | : 0,45 kg/ha                                 |
| Método de siembra         | : Transplante                                |
| Período en vivero         | : -                                          |
| Densidad de sembrado      | : 5,0 x 0,25 m                               |
| Fertilización             | : N 84 kg/ha, P205 41 kg/ha,<br>K20 14 kg/ha |
| Aplicación química        |                                              |
| Insecticidas y fungicidas |                                              |
| - Líquido                 | : 5,2 lt/ha (Nuvacron, Karate)               |
| - Polvo/granular          | : 29,7 kg/ha (Morestan, Topcin)              |
| Hervicidas                |                                              |
| - Líquido                 | : 1 lt/ha (Dual)                             |
| - Polvo/granular          | : -                                          |
| Mano de obra              | : 246 hombre-día/ha                          |
| Preparación de la tierra  | : Tractor                                    |

TOMATE

|                           |                                                                                          |
|---------------------------|------------------------------------------------------------------------------------------|
| Rendimiento Meta          | : 25 tons/ha                                                                             |
| Variedades                | : Consumo directo;<br>Indian River, Walter<br>Uso industrial;<br>Roma VF-105, Río Grande |
| Período vegetativo        | : 120 days                                                                               |
| Aplicación de semilla     | : 0,14 kg/ha                                                                             |
| Método de siembra         | : Transplante / alboleo                                                                  |
| Período en vivero         | : -                                                                                      |
| Densidad de sembrado      | : 0,9 x 0,4-0,5 m<br>(22.000-27.000 plantas/ha)                                          |
| Fertilización             | : N 76 kg/ha, P205 41 kg/ha,<br>K20 14 kg/ha                                             |
| Aplicación química        |                                                                                          |
| Insecticidas y fungicidas |                                                                                          |
| - Líquido                 | : 4,5 lt/ha (Desis, Fenon)                                                               |
| - Polvo/granular          | : 29 kg/ha (Lorsban, Triciman)                                                           |
| Hervicidas                |                                                                                          |
| - Líquido                 | : -                                                                                      |
| - Polvo/granular          | : -                                                                                      |
| Mano de obra              | : 427 hombre-días/ha                                                                     |
| Preparación de la tierra  | : Tractor                                                                                |

Fuente: INIAP, Manual Agrícola de Los Principales Cultivos  
del Ecuador, 1987.

Tabla 4.12 PRACTICAS PROPUESTAS DE CULTIVO E INSUMOS DE FINCA (4/4)  
REQUERIDOS PARA LOS PRINCIPALES CULTIVOS

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**CEBOLLA**

|                           |                                               |
|---------------------------|-----------------------------------------------|
| Rendimiento Meta          | : 15 tons/ha                                  |
| Variedades                | : Texas Grano 502, Granex, Chimborazo         |
| Período vegetativo        | : 120 días                                    |
| Aplicación de semilla     | : 1 kg/ha                                     |
| Método de siembra         | : Transplante                                 |
| Período en vivero         | : -                                           |
| Densidad de sembrado      | : 0,4 x 0,1 m                                 |
| Fertilización             | : N 56 kg/ha, P205 116 kg/ha,<br>K20 45 kg/ha |
| Aplicación química        |                                               |
| Insecticidas y fungicidas |                                               |
| - Líquido                 | : 6,5 lt/ha (Nuvacron, Malathion 57)          |
| - Polvo/granular          | : 6,5 kg/ha (Daconil, Ridomil)                |
| Hervicidas                |                                               |
| - Líquido                 | : 1,5 lt/ha (Goal)                            |
| - Polvo/granular          | : -                                           |
| Mano de obra              | : 285 hombre-día/ha                           |
| Preparación de la tierra  | : Tractor                                     |

**CITRICOS**

|                           |                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Rendimiento Meta          | : 30 tons/ha                                                                                                                              |
| Variedades                | : Naranja; Tipo "Valencia"<br>Mandarina; King, Kara<br>Limon; "Improved Meyer"<br>Toronja; Marsh, Duncan                                  |
| Período vegetativo        | : -                                                                                                                                       |
| Aplicación de semilla     | : -                                                                                                                                       |
| Método de siembra         | : -                                                                                                                                       |
| Período en vivero         | : -                                                                                                                                       |
| Densidad de sembrado      | : Naranja y mandarina;<br>6 x 6 m (278 plants/ha)<br>Toronja; 7 x 6 m (238 planta/ha)<br>Limon; 5 x 5 m - 5 x 6 m<br>(333-400 plantas/ha) |
| Fertilización             | : N 163 kg/ha, P205 200 kg/ha,<br>K20 68 kg/ha                                                                                            |
| Aplicación química        |                                                                                                                                           |
| Insecticidas y fungicidas |                                                                                                                                           |
| - Líquido                 | : 12 lt/ha (Lorsban, Pillaron)                                                                                                            |
| - Polvo/granular          | : 18,2 kg/ha (Oxiclor, Lonzin)                                                                                                            |
| Hervicidas                |                                                                                                                                           |
| - Líquido                 | : -                                                                                                                                       |
| - Polvo/granular          | : -                                                                                                                                       |
| Mano de obra              | : 261 hombre-día/ha                                                                                                                       |
| Preparación de la tierra  | : -                                                                                                                                       |

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Fuente: INIAP, Manual Agrícola de Los Principales Cultivos  
del Ecuador, 1987.

Tabla 4.13 ESTIMATIVOS DE RENDIMIENTO CON Y SIN EL PROYECTO

| (Unidad: t/ha)      |                                                   |         |         |        |       |       |       |        |                         |                      |          |         |
|---------------------|---------------------------------------------------|---------|---------|--------|-------|-------|-------|--------|-------------------------|----------------------|----------|---------|
| Cultivos            | Rendimiento Segun Varias Fuentes de Información*1 |         |         |        |       |       |       | Maximo | Condic.<br>Actual<br>*3 | Rend. Unit. estimado |          |         |
|                     | (1)                                               | (2)     | (3)     | (4)    | (5)   | (6)   | (7)   | Pasado |                         | Sin pro-             | Con pro- |         |
|                     |                                                   | Máximo  | Normal  |        |       |       |       | *3     |                         | yecto*4              | yecto*5  |         |
| ANUALES             |                                                   |         |         |        |       |       |       |        |                         |                      |          |         |
| Algodón             | 0.69                                              | 3.40    | 2.00    | -      | 1.43  | 1.39  | 1.14  | 1.67   | 2.2                     | 1.2                  | 1.4      | 2.0     |
| Arroz cáscara       | 1.20                                              | 12.00   | 3.50    | -      | 0.99  | 1.37  | -     | 2.19   | 3.1                     | 1.8                  | 2.0      | 4.5     |
| Camote              | -                                                 | 20.00   | 5.00    | -      | -     | -     | -     | -      | 8.6                     | 8.1                  | 10.6     | -       |
| Fréjol              | 0.83                                              | -       | 0.50    | -      | -     | -     | -     | 1.01   | 1.4                     | 1.4                  | 1.2      | -       |
| Haba                | 0.95                                              | 2.70    | 1.50    | -      | -     | -     | -     | 1.35   | 1.9                     | 1.1                  | 1.6      | -       |
| Hortalizas          | 1.88                                              | -       | -       | -      | -     | -     | 32.93 | -      | -                       | -                    | -        | -       |
| - Pepino            | -                                                 | 6.70    | 4.40    | -      | -     | -     | -     | -      | -                       | -                    | -        | -       |
| - Pimiento          | -                                                 | 8.00    | 6.00    | -      | -     | -     | -     | -      | 8.0                     | 5.7                  | 5.6      | 6.0     |
| - Tomate            | -                                                 | 30.00   | 25.00   | -      | -     | 1.73  | -     | -      | 22.7                    | 12.3                 | 6.5      | 25.0    |
| - Zapallo           | -                                                 | -       | -       | -      | -     | -     | -     | -      | 15.9                    | 12.6                 | 12.0     | 20.0    |
| Maíz                | 0.78                                              | 13.80   | 4.50    | -      | 1.61  | 2.28  | 1.35  | 1.08   | 1.6                     | 1.3                  | 1.5      | 4.5     |
| Maní                | 0.64                                              | 2.20    | 0.90    | -      | 0.94  | -     | -     | -      | 1.4                     | 1.1                  | 1.3      | 1.8     |
| Soya                | -                                                 | -       | -       | -      | -     | -     | -     | -      | 1.8                     | 1.4                  | 1.2      | 1.8     |
| Melón               | 9.65                                              | 12.00   | 6.00    | -      | 6.267 | 3.500 | -     | -      | 15.0                    | 11.0                 | 10.0     | 13.0    |
| Sandía              | 2.78                                              | 15.00   | 10.00   | -      | 3.498 | 1.415 | -     | -      | 19.5                    | 12.4                 | 14.0     | 15.0    |
| Yuca                | 6.99                                              | 60.00   | 20.00   | -      | 6.20  | 7.46  | -     | 5.29   | 22.7                    | 10.2                 | 11.0     | -       |
| Marigold            | -                                                 | -       | -       | -      | -     | -     | -     | -      | -                       | 12.0                 | 12.0     | -       |
| PERMANENTES         |                                                   |         |         |        |       |       |       |        |                         |                      |          |         |
| Banano              | 11.47                                             | -       | -       | -      | -     | -     | -     | 10.36  | 33.2                    | 17.3                 | 24.0     | -       |
| Cacao               | 0.22                                              | -       | -       | 0.14   | 0.44  | 0.52  | 0.57  | 0.26   | 0.5                     | 0.3                  | 0.3      | -       |
| Café                | 0.76                                              | -       | -       | 0.14   | 0.27  | 0.82  | 0.27  | 1.10   | 1.1                     | 0.2                  | 0.3      | -       |
| Cítricos            | 3.30                                              | -       | -       | -      | -     | -     | 17.66 | 10.46  | -                       | 15.5 *6              | 13.8 *6  | 30.0 *6 |
| - Limón             | -                                                 | -       | -       | -      | -     | -     | -     | -      | 19.7                    | 9.7                  | 10.5     | 20.0    |
| - Mandarina         | -                                                 | -       | -       | -      | -     | -     | -     | -      | 31.0                    | 10.8                 | 10.2     | 30.0    |
| - Naranja           | -                                                 | 30.00   | 15.00   | 150.00 | 20.36 | 20.00 | -     | -      | 30.4                    | 18.1                 | 19.3     | 30.0    |
| - Toronja           | -                                                 | -       | -       | 100.00 | -     | -     | -     | -      | 30.4                    | 19.0                 | 13.3     | 35.0    |
| - Mandarina y Limón | -                                                 | 25.00   | 12.00   | 200.00 | -     | -     | -     | -      | -                       | 10.5 *6              | 10.3 *6  | 28.0 *6 |
| Coco                | -                                                 | -       | -       | -      | -     | -     | -     | -      | 17.1                    | 12.9                 | 12.0     | -       |
| Frutales            | -                                                 | -       | -       | -      | -     | -     | -     | -      | -                       | -                    | -        | -       |
| - Mango             | -                                                 | 360.000 | 160.000 | -      | -     | -     | -     | -      | 49.8                    | 11.5                 | 4.0      | -       |
| - Papaya            | -                                                 | 37.00   | 30.00   | 30.00  | -     | -     | -     | -      | 35.0                    | 21.7                 | 11.0     | -       |
| - Aguacate          | -                                                 | -       | -       | -      | -     | -     | -     | 3.62   | 12.7                    | 9.6                  | 10.1     | -       |
| - Guanábana         | -                                                 | -       | -       | -      | -     | -     | -     | -      | -                       | -                    | -        | -       |
| Higuerilla          | 0.55                                              | 1.68    | 1.44    | -      | -     | -     | -     | -      | 1.8                     | 0.9                  | 0.7      | -       |
| Plátano             | 7.76                                              | 75.00   | 60.00   | -      | -     | -     | 18.43 | 9.24   | 21.3                    | 11.7                 | 12.0     | 20.0    |
| SEMIPERMANENTES     |                                                   |         |         |        |       |       |       |        |                         |                      |          |         |
| Piña                | -                                                 | -       | -       | -      | -     | -     | -     | -      | 27.0                    | 17.9                 | 16.2     | -       |

\*1 (1) Censo Agropecuario nacional, 1974.

(2) CRM, Proyecto Poza Honda, Tomo I, 1970.

(3) CRM-MAG-Asociación ACI, 1982.

(4) CRM-Asociación CCAI, Proyecto Múltiple Carrizal-Chone, 1987.

(5) CRM-MAG-Consorcio PTAIIGH, Justificación Técnica del Túnel de la Esperanza, 1987.

(6) CRM, Estadísticas Regionales de Manabí, 1988.

(7) INEC-MAG, Sistema Estadístico Agropecuario Nacional, 1986.

\*2 Ver tabla 58

\*3 Cifras promedio para 1981 y 1985 (ver tabla 6).

Fuente: MAG, Estimación de la Superficie Sembrada y Cosechada, 1981-1985.

\*4 Sin el proyecto de riego

\*5 Con el proyecto de riego

\*6 Promedio ponderado

Nota: u = unidad

Tabla 4.14 ESTIMATIVOS DEL SUPERAVIT COMERCIAL CON EL PROYECTO (2020)

| Cultivos      | Demanda y oferta interna en el país en el año 2020 |          |         | Producción en la Provincia de Manabí |           |       |        |            | Demanda interna en Manabí |                     |                                |           |         |
|---------------|----------------------------------------------------|----------|---------|--------------------------------------|-----------|-------|--------|------------|---------------------------|---------------------|--------------------------------|-----------|---------|
|               | Demanda                                            | Oferta   | Balance | Con Riego                            | Sin Riego | Total | Semi.  | Ofert Neta | Consumo per capita        | Pobla- ción en 2020 | Demanda internabale en el 2020 | Superavit |         |
|               |                                                    |          |         |                                      |           |       | y per  |            |                           |                     |                                |           |         |
|               |                                                    |          |         |                                      |           |       | didas  |            |                           |                     |                                |           |         |
|               |                                                    |          |         |                                      |           |       | %      |            |                           |                     |                                |           |         |
| (1.000t)      | (1.000t)                                           | (1.000t) | (1.000  | (1.000t                              | (1.000t   | (%)   | (1.000 | (kg)       | (10^6)                    | (1.000t)            | (1.000t)                       |           |         |
| (1)           |                                                    |          |         |                                      |           |       |        |            |                           |                     |                                | (2)       | (2)/(1) |
| Arroz cáscara | 1,257.0                                            | 615.0    | -642.0  | 144.0                                | -         | 144.0 | 12     | 126.7      | 62.0                      | 2.0                 | 124.0                          | 2.7       | 0.2     |
| Maíz          | 487.0                                              | 432.4    | -54.6   | 42.8                                 | 81.2      | 124.0 | 37     | 78.1       | 24.0                      | 2.0                 | 48.0                           | 30.1      | 4.5     |
| Melón         | 28.4                                               | 14.2     | -14.2   | 13.0                                 | 5.0       | 18.0  | 14     | 15.5       | 1.4                       | 2.0                 | 2.8                            | 12.7      | 44.7    |
| Pimiento      | 42.6                                               | 22.9     | -19.7   | 13.8                                 | 1.1       | 14.9  | 10     | 13.4       | 2.1                       | 2.0                 | 4.2                            | 9.2       | 21.6    |
| Sandía        | 166.3                                              | 89.6     | -76.7   | 97.5                                 | 11.2      | 108.7 | 11     | 96.7       | 8.2                       | 2.0                 | 16.4                           | 80.3      | 48.3    |
| Tomate        | 42.6                                               | 22.0     | -20.6   | 5.0                                  | 1.3       | 6.3   | 16     | 5.3        | 2.1                       | 2.0                 | 4.2                            | 1.1       | 2.6     |
| Zapallo       | 40.6                                               | 18.5     | -22.1   | 40.0                                 | 7.2       | 47.2  | 15     | 40.1       | 2.0                       | 2.0                 | 4.0                            | 36.1      | 88.9    |
| Cítricos      | 1213.6                                             | 595.4    | -618.2  | 195.0                                | 23.0      | 218.0 | 10     | 196.2      | 59.8                      | 2.0                 | 119.6                          | 76.6      | 6.3     |
| Plátano       | 830.0                                              | 480.0    | -350.0  | 225.0                                | 271.0     | 496.0 | 53     | 233.1      | 41.0                      | 2.0                 | 82.0                           | 151.1     | 18.2    |
| Maní          | 22.3                                               | 8.3      | -14.0   | 9.0                                  | 0.9       | 9.9   | 14     | 8.5        | 1.1                       | 2.0                 | 2.2                            | 6.3       | 28.3    |
| Soya          | 750.0                                              | 172.0    | -578.0  | 0.9                                  | -         | 0.9   | 6      | 0.8        | 37.0                      | 2.0                 | 74.0                           | -73.2     | -       |
| Algodón       | 62.9                                               | 22.1     | -40.8   | 20.0                                 | 4.06      | 24.1  | 5      | 22.9       | 3.1                       | 2.0                 | 6.2                            | 16.7      | 26.6    |

Tabla 5.1 COSTO A NIVEL DE FINCA DE LOS PRODUCTOS AGRICOLAS (1/2)

|                                       |           | Arroz<br>(IP)*1 | Maiz<br>(IP) | Soya<br>(IP) | Aceite de<br>Maní (IP) | Carne<br>(IP) |
|---------------------------------------|-----------|-----------------|--------------|--------------|------------------------|---------------|
| 1) Precio mundial (Proyectado 2000)*2 |           |                 |              |              |                        |               |
| - 1985 constante                      | (US\$/t)  | 166             | 73           | 148          | 456                    | 2,000         |
| - 1989 constante*3                    | (US\$/t)  | 248             | 109          | 221          | 682                    | 2,990         |
| 2) Flete y seguro                     | (US\$/t)  | 40              | 20           | - *9         | - *9                   | 184           |
| 3) FOB/CIF Manta                      | (US\$/t)  | 288             | 129          | 221          | 682                    | 3,174         |
|                                       | (S./t) *4 | 152,600         | 68,400       | 117,100      | 361,500                | 1,682,200     |
| 4) Tasa portuaria                     | (S./t)    | 3,000           | 3,000        | 3,000        | 3,000                  | 3,000         |
| 5) Costo transporte                   |           |                 |              |              |                        |               |
| Manta - Portoviejo                    | (S./t)    | 2,000           | 2,000        | 2,000        | 2,000                  | 2,000         |
| 6) Costo de mercadeo*5                | (S./t)    | 15,300          | 6,800        | 11,700       | 36,200                 | 168,200       |
| 7) Precio de exprocesadora            |           |                 |              |              |                        |               |
| en Portoviejo                         | (S./t)    | 172,900         | 80,200       | 133,800      | 402,700                | 1,855,400     |
| - Tasa de procesado                   | (%)       | (65) *6         | -            | -            | (35)                   | (34.5)        |
| - Costo del procesado                 | (S./t)    | 10,300 *7       | -            | -            | 14,100                 | 64,000        |
| - Derivados                           | (S./t)    | 4,500           | -            | -            | 46,300 *8              | -             |
| 8) Precio de procesadora              | (S./t)    | 106,600         | -            | -            | 173,100 *10            | 576,110 *11   |
| 9) Costo de transporte local          | (S./t)    | 4,000           | 4,000        | 4,000        | 4,000                  | 4,000         |
| 10) Precio a nivel de finca           | (S./t)    | 102,600         | 76,200       | 129,800      | 169,100                | 572,110       |
|                                       | (US\$/t)  | (194)           | (144)        | (245)        | (319)                  | (1,079)       |

\*1 IP: Precios de paridad para importación

\*2 Fuente: Precios proyectados, Banco Mundial, octubre 1988.

Bases de datos

- Arroz (Thai) : Blanco pilado 5% roto, FOB Bangkok, Thai.
- Maiz (US) : Amarillo N° 2, FOB, Puertos del Golfo, US.
- Soya (US) : CIF Rotterdam.
- Maní (West African) : Cualquier origen, CIF Rotterdam.
- Carne (US) : Importado de EEUU, congelado sin hueso

\*3 Factor de conversión de 1985 a 1989: 1,4950

\*4 US\$ 1,00 = S/.530

\*5 Asumido al 10% del precio FOB/CIF.

\*6 Aunque la tasa actual de pilado es de 62.5%, se estima que la tasa futura mejorara a 65%

\*7 En general los agricultores pagan con un 20% de su producto por el pilado. Asumiendo que el costo real del pilado es del 50% de la carga pagada, el costo económico del procesamiento se estima así:

$$1,000 \text{ kg} \times 65\% \times 20\% \times S/.158/\text{kg} \times 50\% = S/. 10,300/\text{kg}$$

\*8 Productos derivados del maní: 50% del maní. Precio del derivado de maní = 23% del aceite de maní.

$$0,5\text{t} \times (S/.402.700/\text{t} \times 23\%) = S/.46.300$$

\*9 Asumiendo que la soya y el maní se importan al mismo precio CIF Rotterdam, se excluyen el flete y el seguro

\*10 Grano \*11 Precio económico del peso en pié por tonelada

Tabla 5.1 COSTO A NIVEL DE FINCA DE LOS PRODUCTOS AGRICOLAS (2/2)

|                                       |           | Algodón (EP)*1 |         | Café<br>(EP) | Cacao<br>(EP) | Aceite de<br>Coco<br>(IP)*2 |
|---------------------------------------|-----------|----------------|---------|--------------|---------------|-----------------------------|
|                                       |           | Fibra          | Semilla |              |               |                             |
| 1) Precio mundial (Proyectado 2000)*3 |           |                |         |              |               |                             |
| - 1985 constante                      | (US\$/t)  | 1160           |         | 2050         | 1150          | 374                         |
| - 1989 constante*4                    | (US\$/t)  | 1734           |         | 3065         | 1719          | 559                         |
| 2) Flete y seguro                     | (US\$/t)  | 95             |         | 95           | 95            | - *10                       |
| 3) FOB/CIF Manta                      | (US\$/t)  | 1639           |         | 2970         | 1624          | 559                         |
|                                       | (S./t) *5 | 868700         | 78200   | 1574100      | 860700        | 296300                      |
| 4) Tasa portuaria                     | (S./t)    | 3000           | 3000    | 5500         | 5500          | 3000                        |
| 5) Costo transporte                   |           |                |         |              |               |                             |
| Manta - Portoviejo                    | (S./t)    | 2000           | 2000    | 1800         | 1800          | 2000                        |
| 6) Costo de mercadeo*6                | (S./t)    | 86900          | 7800    | 22000        | 22000         | 29600                       |
| 7) Precio de exprocesadora            |           |                |         |              |               |                             |
| en Portoviejo                         | (S./t)    | 776800         | 65400   | 1544800      | 831400        | 330900                      |
| - Tasa de procesado                   | (%)       | -35            | -63     | -19.6 *8     | -21           | -13.7                       |
| - Costo del procesado                 | (S./t)    | 27200          |         | 61500        | 17500         | 4500                        |
| - Derivados                           | (S./t)    |                |         | -            | -             | -                           |
| 8) Precio de procesadora              | (S./t)    | 285900 *7      |         | 241300       | 157100        | 40800 *12                   |
| 9) Costo de transporte local          | (S./t)    | 4000           |         | 3300         | 3300          | 4000                        |
| 10) Precio a nivel de finca           | (S./t)    | 281900 *11     |         | 238000 *9    | 153800        | 36800 *12                   |
|                                       | (US\$/t)  | -532           |         | -449         | -290          | -69                         |

\*1 EP: Precios de paridad para exportación

\*2 IP: Precios de paridad para importación

\*3 Fuente: Precios proyectados, Banco Mundial Octubre 1988.

Base de datos

- Algodón : Mejicano Medio (1-3/32"), CIF Europa

- Café (ICO) : Precio indice, Arabigo suave, precio promedio de New York y Hamburgo ex-dock for prompt shipment.

- Cacao (ICCO) : Precio promedio spot, New York y Londres, Promedio de ultimos 3 meses

- Aceite de coco (Filipinas/Indonesia): En peso CIF Rotterdam.

\*4 Factor de conversion de 1985 a 1989: 1,4950

\*5 US\$ 1,00 = S/.530

\*6 Costo de comercialización asumiendo 10% del costo FOB/CIF, excepto para café.

\*7 (Precio de ex-fábrica de fibra x Tasa de procesamiento) + (Precio de ex-fábrica de semilla x Tasa de procesamiento).

\*8 Tasa de proceso: 46,2% x 50% x (100%-15%) = 19,6%

Cereza fresca - Cereza seca 46,2%

Cereza seca - Grano limpio 50,0%

Perdida de pilado 15,0%

\*9 Precio del café en cereza

\*10 Asumiendo que el aceite de cocó puede ser importado a los precios CIF Rotterdam se excluye el flete y el seguro

\*11 Semilla de algod \*12 Coconut

Tabla 5.2 PRECIOS DE LOS INSUMOS A NIVEL DE FINCA

|                                             |           | Urea<br>(IP)*1 | TSP<br>(IP) | KCL<br>(IP) |
|---------------------------------------------|-----------|----------------|-------------|-------------|
| 1) Precio Mundial (Proyectado 2000)*2       |           |                |             |             |
| - 1985 constante                            | (US\$/t)  | 132            | 146         | 75          |
| - 1989 constante*3                          | (US\$/t)  | 197            | 218         | 112         |
| 2) Flete y seguro                           | (US\$/t)  | 20             | 20          | 20          |
| 3) FOB/CIF Manta                            | (US\$/t)  | 217            | 238         | 132         |
|                                             | (S./t) *4 | 115,000        | 126,100     | 70,000      |
| 4) Tasa portuaria                           | (S./t)    | 3,000          | 3,000       | 3,000       |
| 5) Costo transporte                         |           |                |             |             |
| Manta - Portoviejo                          | (S./t)    | 2,000          | 2,000       | 2,000       |
| 6) Costo de Mercadeo*5                      | (S./t)    | 12,000         | 13,000      | 7,000       |
| 7) Precio en Portoviejo                     | (S./t)    | 132,000        | 144,100     | 82,000      |
| 8) Costo de transporte                      | (S./t)    |                |             |             |
| y manipuleo                                 | (S./t)    | 4,000          | 4,000       | 4,000       |
| 9) Precio a nivel de finc                   | (S./t)    | 136,000        | 148,100     | 86,000      |
| 10) Precio/ton. de contenido neto           | (S./t)    | 295,700        | 322,000     | 143,300     |
|                                             |           | N              | P205        | KCL         |
|                                             |           | 46%            | 46%         | 60%         |
| 11) Precio de fertilizante a nivel de finca |           |                |             |             |
| - Urea (46%)                                | (S./t)    | 136,000        | 136,000     |             |
| - Abono completo (10:30:10)                 | (S./t)    | 140,500        | 29,600      | 96,600      |
|                                             |           |                |             | 14,300      |
| - Sulfato amonio (21%)                      | (S./t)    | 62,100         | 62,100      |             |
| - Triple superphosphate (TSP)(46%)          | (S./t)    | 148,100        | 148,100     |             |
| - Muriato de potacio (60%)                  | (S./t)    | 86,000         |             | 86,000      |

\*1 IP: Precios de paridad para importación

\*2 Fuente: Precios proyectados Banco Mundial Octubre 1988.

Base de datos: - Urea : Bagged, FOB N.W. Europe.

- TSP : Bulk, FOB US Gulf.

- KCL : Bulk, FOB Vancouver.

\*3 Factor de conversión 1985 a 1989: 1,4950

\*4 US\$ 1,00 = S/.530

\*5 Se asume el 10% de CIF precios.



Tabla 5.3 PRECIOS FINANCIEROS Y ECONOMICOS DE INSUMOS Y EGRESOS (1/2)

(Unidad: Sucre)

| Item                         | Unidad      | Precio Financier | Precio Económico | Item                | Unidad   | Precio Financier | Precio Económico |
|------------------------------|-------------|------------------|------------------|---------------------|----------|------------------|------------------|
| <b>PRODUCTOS AGRICOLAS*1</b> |             |                  |                  |                     |          |                  |                  |
| - Arroz                      | (S./kg)     | 143              | 103              | - Papaya            | (S./kg)  | 46               | 46               |
| - Frejol                     | (S./kg)     | 240              | 240              | - Piña              | (S./kg)  | 213              | 213              |
| - Haba                       | (S./kg)     | 410              | 410              | - Plátano           | (S./kg)  | 31               | 31               |
| - Maíz                       | (S./kg)     | 62               | 76               | - Coco              | (S./kg)  | 49               | 37               |
| - Camote                     | (S./kg)     | 22               | 22               | - Higuierilla       | (S./kg)  | 99               | 99               |
| - Yuca                       | (S./kg)     | 10               | 10               | - Maní              | (S./kg)  | 276              | 169              |
| - Melón                      | (S./kg)     | 27               | 27               | - Soya              | (S./kg)  | 71               | 130              |
| - Pepino                     | (S./kg)     | 35               | 35               | - Algodón           | (S./kg)  | 139              | 282              |
| - Pimiento                   | (S./kg)     | 102              | 102              | - Cacao en grano    | (S./kg)  | 441              | 831              |
| - Sandía                     | (S./kg)     | 58               | 58               | - Cereza            | (S./kg)  | 88               | 238              |
| - Tomate                     | (S./kg)     | 37               | 37               | - Café seco         | (S./kg)  | 190              | 515 *3           |
| - Zapallo                    | (S./kg)     | 41               | 41               | - Marigold          | (S./kg)  | 30               | 30               |
| - Cebolla                    | (S./kg)     | 88               | 88               | - Carne*4           | (S./kg)  | 400              | 518              |
| - Citricos *2                | (S./kg)     | 40               | 40               | - Leche             | (S./lt)  | 100              | 100              |
| <b>SEMILLAS/PLANTULAS*5</b>  |             |                  |                  |                     |          |                  |                  |
| - Arroz                      | (S./kg)     | 109              | 109              | - Zapallo           | (S./kg)  | 27,900           | 27,900           |
| - Frejol                     | (S./kg)     | 150              | 150              | - Cebolla           | (S./kg)  | 17,600           | 17,600           |
| - Haba                       | (S./kg)     | 250              | 250              | - Papaya            | (S./kg)  | 2,200            | 2,200            |
| - Maíz                       | (S./kg)     | 230              | 230              | - Piña              | S./chup. | 10               | 10               |
| - Camote                     | (S./kg)     | -                | -                | - Plátano           | (S./kg)  | -                | -                |
| - Yuca                       | (S./Estaca) | 0.5              | 0.5              | - Coco              | (S./kg)  | 35               | 35               |
| - Melón                      | (S./kg)     | 26,500           | 26,500           | - Higuierilla       | (S./kg)  | 130              | 130              |
| - Pepino                     | (S./kg)     | 20,300           | 20,300           | - Maní              | (S./kg)  | 264              | 264              |
| - Pimiento                   | (S./kg)     | 26,700           | 26,700           | - Soya              | (S./kg)  | 150              | 150              |
| - Sandía                     | (S./kg)     | 27,900           | 27,900           | - Algodón           | (S./kg)  | 430              | 430              |
| - Tomate                     | (S./kg)     | 26,500           | 26,500           | - Marigold          | (S./kg)  | 9,910            | 9,910            |
| <b>FERTILIZANTES*6</b>       |             |                  |                  |                     |          |                  |                  |
| - Urea                       | (S./kg)     | 110              | 136              | - Sulfato de Amonio | (S./kg)  | 110              | 62               |
| - Abono completo             | (S./kg)     | 154              | 141              | - TSP               | (S./kg)  | 110              | 148              |
| - Sulfomag,                  | (S./kg)     | 110              | 136              | - Mureato Potash    | (S./kg)  | 110              | 86               |
| <b>HERVICIDAS</b>            |             |                  |                  |                     |          |                  |                  |
|                              |             |                  | *7               |                     |          |                  | *7               |
| - Propanil 36%               | (S./lt)     | 1,850            | 1,850            | - Gramoxone         | (S./lt)  | 1,300            | 1,300            |
| - Lazo                       | (S./lt)     | 1,800            | 1,800            | - Dual              | (S./lt)  | 2,400            | 2,400            |
| - Afalon                     | (S./lt)     | 2,500            | 2,500            | - Goal              | (S./lt)  | 6,000            | 6,000            |
| - Malexone                   | (S./lt)     | 1,700            | 1,700            | - Gesagard          | (S./kg)  | 4,700            | 4,700            |

\*1 Los precios de productos comerciables tales como arroz, maíz, soya, maní, algodón, café, cacao, coco, banana y carne de res, fueron estimados en base a estos precios umbral (ver tabla 5.1).

\*2 Promedio ponderado de limón, mandarina, naranja y toronja.

|             | Producción (t) | %     | S./Unida | S./k | Promedio |
|-------------|----------------|-------|----------|------|----------|
| - Limón     | 5,140          | 7.0%  | 2        | 74   | 5.2      |
| - Mandarina | 12,220         | 16.6% | 6        | 66   | 11.0     |
| - Naranja   | 47,320         | 64.1% | 5        | 34   | 21.8     |
| - Toronja   | 9,140          | 12.4% | 7        | 13   | 1.6      |

Weighted average (S./kg) 39.6

\*3 Factor de conversión de cereza a grano seco: 0.462 (515 = 238 / 0.462)

\*4 Precio de la carne en pie (ganado)

Precio financiero: S./120.000/head / 300kg/head = S./400/kg

Precio económico (ver Tabla 5.1)

\*5 Se aplicaron precios financieros a los económicos.

\*6 Ver tabla 5.2

\*7 Se aplican precios financieros a los económicos.

Nota: Precio financiero: A enero de 1989.

Precios económicos: Los corrientes de 1989 proyectados al año 2000.

Tabla 5.3 PRECIOS FINANCIEROS Y ECONOMICOS DE INSUMOS Y EGRESOS (2/2)

| Item                                | Unidad  | Precio Financier | Precio Económico | Item                              | Unidad      | Precio Financier | Precio Económico |
|-------------------------------------|---------|------------------|------------------|-----------------------------------|-------------|------------------|------------------|
| <b>INSECTISIDAS Y FUNGISIDAS*1</b>  |         |                  |                  |                                   |             |                  |                  |
| - Monitor                           | (S./lt) | 3,700            | 3,700            | - Lorsban                         | (S./lt)     | 5,600            | 5,600            |
| - Ambush                            | (S./lt) | 21,340           | 21,340           | - Vitavax                         | (S./lt)     | 3,520            | 3,520            |
| - Curacron                          | (S./lt) | 4,600            | 4,600            | - Mavrik                          | (S./lt)     | 10,000           | 10,000           |
| - Larvin                            | (S./lt) | 7,800            | 7,800            | - Azodrin                         | (S./lt)     | 3,800            | 3,800            |
| - Pillaron                          | (S./lt) | 4,000            | 4,000            | - Bayfolan                        | (S./lt)     | 1,200            | 1,200            |
| - Dimecron                          | (S./lt) | 7,100            | 7,100            | - Desis                           | (S./lt)     | 12,000           | 12,000           |
| - Nuvacron                          | (S./lt) | 3,650            | 3,650            | - Fenon                           | (S./lt)     | 10,950           | 10,950           |
| - Karate                            | (S./lt) | 8,720            | 8,720            | - Supracio                        | (S./lt)     | 7,400            | 7,400            |
| - Nudrin                            | (S./lt) | 4,200            | 4,200            | - Agral 90                        | (S./lt)     | 900              | 900              |
| - Mitac 20                          | (S./lt) | 3,800            | 3,800            | - Malathion 57                    | (S./lt)     | 1,500            | 1,500            |
| - Oxiclor                           | (S./kg) | 1,365            | 1,365            | - Lonzin                          | (S./kg)     | 1,870            | 1,870            |
| - Lannate                           | (S./kg) | 16,200           | 16,200           | - Furadan 5%                      | (S./kg)     | 950              | 950              |
| - Cuprosan                          | (S./kg) | 1,540            | 1,540            | - Furadan 98                      | (S./kg)     | 7,000            | 7,000            |
| - Tricarbamix                       | (S./kg) | 2,200            | 2,200            | - Triciman                        | (S./kg)     | 1,890            | 1,890            |
| - Terraclor                         | (S./kg) | 3,960            | 3,960            | - Maneb-50                        | (S./kg)     | 1,290            | 1,290            |
| - Daconil                           | (S./kg) | 2,100            | 2,100            | - Maneb-80                        | (S./kg)     | 1,590            | 1,590            |
| - Benlate                           | (S./kg) | 13,500           | 13,500           | - Incolante                       | (S./kg)     | 3,300            | 3,300            |
| - Orthocide                         | (S./kg) | 1,320            | 1,320            | - Piola                           | (S./kg)     | 2,000            | 2,000            |
| - Evicet                            | (S./kg) | 9,500            | 9,500            | - Temik                           | (S./kg)     | 2,000            | 2,000            |
| - Morestan                          | (S./kg) | 8,000            | 8,000            | - Malathion                       | (S./kg)     | 1,280            | 1,280            |
| - Topsin                            | (S./kg) | 9,000            | 9,000            | - Antracol                        | (S./kg)     | 1,800            | 1,800            |
| - Mancozeb                          | (S./kg) | 1,720            | 1,720            | - Ridomil                         | (S./kg)     | 6,000            | 6,000            |
| <b>MATERIALES DE APOYO*1*2</b>      |         |                  |                  |                                   |             |                  |                  |
| - Fundas de polietileno (S./Millar) |         | 70               | 700              | - Estaca 50%                      | S./Unidad   | 10               | 10               |
| - Aceite agri.                      | (S./lt) | 500              | 500              | - Alambre 25%                     | (S./kg)     | 200              | 200              |
| <b>EQUIPO AGRICOLA*3</b>            |         |                  |                  |                                   |             |                  |                  |
| - Preparación de suelo(S./ha)       |         | 12,000           | 12,000           | - Trillada y limpieza de soya (t) |             | 1,200            | 1,200            |
| - Desgranada de maí (S./t)          |         | 4,400            | 4,400            | - Transporte (Algodón) S./        |             | 3,300            | 3,300            |
| - Desgranada de man (S./t)          |         | 5,500            | 5,500            | - Transporte (Marigold) S./       |             | 2,670            | 2,670            |
| <b>MANO DE OBRA</b>                 |         |                  |                  |                                   |             |                  |                  |
| - Mano O.calif.(Poda)(S./día)       |         | 1,000            | 1,000            | AGUA *1                           | (S./ha/tim) | 90               | 90               |
| - Mano O no calif. (S./day)         |         |                  |                  |                                   |             |                  |                  |
| Destajeros                          |         | 600              | 420 *4           |                                   |             |                  |                  |
| Control fitosanitario               |         | 800              | 560              |                                   |             |                  |                  |

\*1 Se utilizan precios financieros

\*2 Se estima que todos los materiales de apoyo son de fuente local

\*3 En lugar de precios económicos de la maquinaria agrícola, se usó precios financieros en vista de que los impuestos a la importación de equipo son mínimos.

\*4 Desde el punto de vista del desarrollo agrícola, la población económicamente activa de manabí fue estimada 306.000 habitantes para 1982; y que consisten de 70% de empleados y un 30% de desempleados. Basado en estas cifras el precio sombra de la mano de obra se estimó en 70%.

|                                   | (A)       | (B)        | (%)   |
|-----------------------------------|-----------|------------|-------|
| Población mayor de 12 años        | 537,000   | 537.000    |       |
| - Población activa                | 207,000   | 273.000*   | 100,0 |
| Ocupado                           | (191,000) | (191.000)  | 70,0  |
| Desocupado                        | (16,000)  | (82.000)** | 30,0  |
| - Población inactiva y no declara | 330,000   | 264.000    |       |

(A) Situación del empleo en Manabí (1982)

(B) Situación del empleo para el desarrollo agrícola.

\* Incluyendo oportunidad de trabajo temporal en finca.

\*\* Asumiendo que cerca del 20% de la población inactiva puede tener trabajo ocasional en el campo, la población desempleada fue estimada en 82.000 (330.000 x 0,2 + 16.000).

Nota: (1) Factores de conversión de unidades de medidas locales y metricas.

qq = 45,36 kg galón = 3,785 lt

lb = 0,454 kg onza = 28,35 g (0,02835 kg)

(2) US\$ 1,00 = S/.530 (Jan.-Mar, 1989)

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (1/9)

|                                              |          |          | Pasto de Corte<br>(SR) |         | Cítricos<br>(SR) |         | Plátano<br>(SR) |         | Cacao<br>(SR) |         |
|----------------------------------------------|----------|----------|------------------------|---------|------------------|---------|-----------------|---------|---------------|---------|
|                                              |          |          |                        |         |                  |         |                 |         |               |         |
| I. VALOR DE LA PRODUCCION TOTAL              |          |          |                        |         |                  |         |                 |         |               |         |
| 1) Rendimiento                               | (t/ha    | 70       | (t/ha)                 | 13.8    | (t/ha            | 12.0    | (t/ha)          | 0.30    |               |         |
| 2) Precio por Unidad de Medida               | (\$/./t  | -        | (\$/./t)               | 40,000  | (\$/./t          | 31,000  | (\$/./t)        | 831,000 |               |         |
| 3) Valor de la Producción Total              | (\$/.    | -        | (\$/.)                 | 552,000 | (\$/.            | 372,000 | (\$/.)          | 249,300 |               |         |
|                                              |          |          |                        |         |                  |         |                 |         |               |         |
|                                              |          | Costo    |                        |         |                  |         |                 |         |               |         |
|                                              |          | Unit.    | Can                    | Total   | Cand             | Total   | Cand            | Total   | Cand          | Total   |
| II. TOTAL GASTOS                             |          | (Unidad  |                        | (S/.)   |                  | (S/.)   |                 | (S/.)   |               | (S/.)   |
|                                              |          |          |                        |         |                  |         |                 |         |               |         |
| 1. Costo de Producción                       |          |          |                        |         |                  |         |                 |         |               |         |
| 1) Labores                                   |          | (Jornal) |                        |         |                  |         |                 |         |               |         |
| - Control de maleza                          | - Quími  | 420      | -                      | -       | -                | -       | -               | -       | -             | -       |
|                                              | - Manual | 420      | 6                      | 2,520   | 18               | 7,560   | -               | -       | 24            | 10,080  |
| - Control de maleza                          |          |          |                        |         |                  |         |                 |         |               |         |
| - mantenimiento de canale                    |          | 420      | -                      | -       | -                | -       | 10              | 4,200   | -             | -       |
| - Limpieza y mantenimiento                   |          |          |                        |         |                  |         |                 |         |               |         |
| - canales, surco y corona                    |          | 420      | -                      | -       | -                | -       | -               | -       | -             | -       |
| - Fertilización                              |          | 420      | 8                      | 3,360   | 6                | 2,520   | 6               | 2,520   | 4             | 1,680   |
| - Control fitosanitario                      |          | 560      | -                      | -       | 15               | 8,400   | 6               | 3,360   | 3             | 1,680   |
| - Poda                                       |          | 1,000    | -                      | -       | 6                | 6,000   | -               | -       | 6             | 6,000   |
| - Poda y aplicación                          |          |          |                        |         |                  |         |                 |         |               |         |
| - de cicatrizante                            |          | 420      | -                      | -       | -                | -       | -               | -       | -             | -       |
| - Deshierba y deshierje                      |          | 420      | -                      | -       | -                | -       | 40              | 16,800  | -             | -       |
| - Riego                                      |          | 420      | 8                      | 3,360   | -                | -       | -               | -       | -             | -       |
| - Corte y acarreo                            |          | 420      | 50                     | 21,000  | -                | -       | 36              | 15,120  | -             | -       |
| - Cosecha, acarreo y cargad                  |          | 420      | -                      | -       | 69               | 28,980  | -               | -       | -             | -       |
| - Cosecha, acarreo, fermentación             |          |          |                        |         |                  |         |                 |         |               |         |
| - secada y cargada                           |          | 420      | -                      | -       | -                | -       | -               | -       | 23            | 9,660   |
| 2) Materiales                                |          |          |                        |         |                  |         |                 |         |               |         |
| - Urea                                       | (kg)     | 136      | 363                    | 49,368  | -                | -       | -               | -       | -             | -       |
| - Sulfato amonio                             | (kg)     | 62       | -                      | -       | 227              | 14,074  | -               | -       | -             | -       |
| - Abono completo                             | (kg)     | 141      | -                      | -       | 340              | 47,940  | 181             | 25,521  | 272           | 38,352  |
| - Furadan 5%                                 | (kg)     | 950      | -                      | -       | -                | -       | 15              | 14,250  | -             | -       |
| - Supracio                                   | (lt)     | 7,400    | -                      | -       | 2                | 14,800  | -               | -       | -             | -       |
| - Lorsban                                    | (lt)     | 5,600    | -                      | -       | 2                | 11,200  | -               | -       | -             | -       |
| - Pillaron                                   | (lt)     | 4,000    | -                      | -       | 2                | 8,000   | -               | -       | -             | -       |
| - Curacron                                   | (lt)     | 4,600    | -                      | -       | -                | -       | -               | -       | 1.5           | 6,900   |
| - Oxíclor                                    | (kg)     | 1,365    | -                      | -       | 4.6              | 6,279   | -               | -       | 4.6           | 6,279   |
| - Lonzin                                     | (kg)     | 1,870    | -                      | -       | 4.6              | 8,602   | -               | -       | -             | -       |
| - Aceite agr.                                | (lt)     | 500      | -                      | -       | 10               | 5,000   | -               | -       | -             | -       |
| - Agral 90                                   | (lt)     | 900      | -                      | -       | 1.5              | 1,350   | -               | -       | -             | -       |
| - Agua                                       | (Rie/40) | 90       | -                      | -       | -                | -       | -               | -       | -             | -       |
| 3) Equipos (Prepar. suelo)(ha)               |          |          | -                      | -       | -                | -       | -               | -       | -             | -       |
|                                              |          |          |                        |         |                  |         |                 |         |               |         |
| 2. Gastos Imprevistos                        |          |          |                        |         |                  |         |                 |         |               |         |
| 1) Imprevistos y Gastos de Administración *1 |          |          | 7,961                  |         |                  | 17,071  |                 | 8,177   |               | 8,063   |
| Total                                        |          |          |                        | 87,569  |                  | 187,776 |                 | 89,948  |               | 88,694  |
|                                              |          |          |                        |         |                  |         |                 |         |               |         |
| III. INGRESO NETO                            |          |          |                        |         |                  |         |                 |         |               |         |
|                                              |          |          |                        | -       |                  | 364,224 |                 | 282,052 |               | 160,606 |

\*1 10% de costo de producción.

Nota: SR = Sin Riego, CR = Con Riego

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (2/9).

|                                              |                           | Cocotero<br>(SR) |                 | Yuca<br>(SR) |                 | Arroz - Invierno<br>(SR) |                 | Arroz - Verano<br>(CR) |                 |
|----------------------------------------------|---------------------------|------------------|-----------------|--------------|-----------------|--------------------------|-----------------|------------------------|-----------------|
| I. VALOR DE LA PRODUCCION TOTAL              |                           |                  |                 |              |                 |                          |                 |                        |                 |
| 1) Rendimiento                               |                           | (t/ha            | 12.0            | (t/ha)       | 11.0            | (t/ha                    | 2.0             | (t/ha)                 | 3.2             |
| 2) Precio por Unidad de Medida               |                           | (\$/./t          | 37,000          | (\$/./t)     | 10,000          | (\$/./t                  | 93,000          | (\$/./t)               | 93,000          |
| 3) Valor de la Producción Total              |                           | (\$/.            | 444,000         | (\$/.)       | 110,000         | (\$/.                    | 186,000         | (\$/.)                 | 297,600         |
| II. TOTAL GASTOS                             |                           |                  |                 |              |                 |                          |                 |                        |                 |
|                                              | Costo<br>Unit.<br>(Unidad | Can              | Total<br>(\$/.) | Cand         | Total<br>(\$/.) | Cand                     | Total<br>(\$/.) | Cand                   | Total<br>(\$/.) |
| 1. Costo de Producción                       |                           |                  |                 |              |                 |                          |                 |                        |                 |
| 1) Labores (Jornal)                          |                           |                  |                 |              |                 |                          |                 |                        |                 |
| - Preparación de suelo                       | 420                       | -                | -               | -            | -               | 10                       | 4,200           | 10                     | 4,200           |
| - Control de maleza - Químico                | 560                       | -                | -               | 4            | 2,240           | 3                        | 1,680           | 3                      | 1,680           |
| - Manual                                     | 420                       | 16               | 6,720           | 10           | 4,200           | -                        | -               | -                      | -               |
| - Siembra                                    | 420                       | -                | -               | 8            | 3,360           | 10                       | 4,200           | 10                     | 4,200           |
| - Fertilización                              | 420                       | 4                | 1,680           | 4            | 1,680           | 6                        | 2,520           | 6                      | 2,520           |
| - Control fitosanitario                      | 560                       | 44               | 24,640          | -            | -               | 12                       | 6,720           | 12                     | 6,720           |
| - Poda                                       | 1,000                     | 12               | 12,000          | -            | -               | -                        | -               | -                      | -               |
| - Riego                                      | 420                       | -                | -               | -            | -               | -                        | -               | 10                     | 4,200           |
| - Corte y acarreo                            | 420                       | -                | -               | 23           | 9,660           | -                        | -               | -                      | -               |
| - Cosecha corte y trillado                   | 420                       | -                | -               | -            | -               | 16                       | 6,720           | 20                     | 8,400           |
| - Cosecha, acarreo y cargada                 | 420                       | 42               | 17,640          | -            | -               | -                        | -               | -                      | -               |
| - Vigilancia de cosecha                      | 420                       | 36               | 15,120          | -            | -               | -                        | -               | -                      | -               |
| 2) Materiales                                |                           |                  |                 |              |                 |                          |                 |                        |                 |
| - Semilla (Arroz) (kg)                       | 109                       | -                | -               | -            | -               | 100                      | 10,900          | 100                    | 10,900          |
| - Estaca (Estaca)                            | 0.5                       | -                | -               | 10,000       | 5,000           | -                        | -               | -                      | -               |
| - Urea (kg)                                  | 136                       | -                | -               | 91           | 12,376          | 136                      | 18,496          | 181                    | 24,616          |
| - Abono completo (kg)                        | 141                       | 91               | 12,831          | -            | -               | -                        | -               | 91                     | 12,831          |
| - Propanil 36% (lt)                          | 1,850                     | -                | -               | -            | -               | 3.8                      | 7,030           | 3.8                    | 7,030           |
| - Gramoxone (lt)                             | 1,300                     | -                | -               | 1.8          | 2,340           | -                        | -               | -                      | -               |
| - Monitor (lt)                               | 3,700                     | -                | -               | -            | -               | 2                        | 7,400           | 2                      | 7,400           |
| - Lannate (kg)                               | 16,200                    | -                | -               | -            | -               | 0.4                      | 6,480           | 0.4                    | 6,480           |
| - Nudrin (lt)                                | 4,200                     | 8                | 33,600          | -            | -               | -                        | -               | -                      | -               |
| - Malathion (kg)                             | 1,280                     | 9                | 11,520          | -            | -               | -                        | -               | -                      | -               |
| - Aceite agr. (lt)                           | 500                       | 8                | 4,000           | -            | -               | -                        | -               | -                      | -               |
| - Agua                                       | 90                        | -                | -               | -            | -               | -                        | -               | 5                      | 450             |
| 3) Equipos                                   |                           |                  |                 |              |                 |                          |                 |                        |                 |
| - Preparación de suelo (ha)                  | 12,000                    | -                | -               | 1            | 12,000          | 1                        | 12,000          | 1                      | 12,000          |
| 2. Gastos Imprevistos                        |                           |                  |                 |              |                 |                          |                 |                        |                 |
| 1) Imprevistos y Gastos de Administración *1 |                           |                  | 13,975          |              | 5,286           |                          | 8,835           |                        | 11,363          |
| Total                                        |                           |                  | 153,726         |              | 58,142          |                          | 97,181          |                        | 124,990         |
| III. INGRESO NETO                            |                           |                  |                 |              |                 |                          |                 |                        |                 |
|                                              |                           |                  | 290,274         |              | 51,858          |                          | 88,819          |                        | 172,610         |

\*1 10% de costo de producción.

Nota: SR = Sin Riego, CR = Con Riego

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (3/9)

|                                              |          | Algodón<br>(SR) |      | Maíz - Verano<br>(CR) |         | Maíz - Invierno<br>(SR) |         | Maní - Invierno<br>(SR) |                   |        |
|----------------------------------------------|----------|-----------------|------|-----------------------|---------|-------------------------|---------|-------------------------|-------------------|--------|
| I. VALOR DE LA PRODUCCION TOTAL              |          |                 |      |                       |         |                         |         |                         |                   |        |
| 1) Rendimiento                               | (t/ha)   | 1.4             |      | (t/ha)                | 3.4     | (t/ha)                  | 1.5     | (t/ha)                  | 1.3               |        |
| 2) Precio por Unidad de Medida               | (\$/./t) | 282,000         |      | (\$/./t)              | 76,000  | (\$/./t)                | 76,000  | (\$/./t)                | 161,000           |        |
| 3) Valor de la Producción Total              | (\$/.)   | 394,800         |      | (\$/.)                | 258,400 | (\$/.)                  | 114,000 | (\$/.)                  | 209,300           |        |
| II. TOTAL GASTOS                             |          |                 |      |                       |         |                         |         |                         |                   |        |
|                                              |          | Costo           |      |                       |         |                         |         |                         |                   |        |
|                                              | Unidad   | Unit. (\$/.)    | Cand | Total (\$/.)          | Cand    | Total (\$/.)            | Cand    | Total (\$/.)            | Cand Total (\$/.) |        |
| 1. Costo de Producción                       |          |                 |      |                       |         |                         |         |                         |                   |        |
| 1) Labores (Jornal)                          |          |                 |      |                       |         |                         |         |                         |                   |        |
| - Preparación de suelo                       |          | 420             | 10   | 4,200                 | -       | -                       | -       | -                       | -                 |        |
| - Arreglo de suelo                           |          | 420             | -    | -                     | 4       | 1,680                   | -       | -                       | -                 |        |
| - Control de maleza - Quimi                  |          | 560             | 2    | 1,120                 | 2       | 1,120                   | 2       | 1,120                   | 2                 | 1,120  |
| - Control de maleza - Manual                 |          | 420             | 12   | 5,040                 | 6       | 2,520                   | 6       | 2,520                   | 10                | 4,200  |
| - Siembra                                    |          | 420             | 10   | 4,200                 | 8       | 3,360                   | 8       | 3,360                   | 10                | 4,200  |
| - Fertilización                              |          | 420             | 10   | 4,200                 | 4       | 1,680                   | 4       | 1,680                   | -                 | -      |
| - Control fitosanitario                      |          | 560             | 16   | 8,960                 | 4       | 2,240                   | 4       | 2,240                   | 8                 | 4,480  |
| - Riego                                      |          | 420             | -    | -                     | 14      | 5,880                   | 4       | 1,680                   | -                 | -      |
| - Cosecha                                    |          | 420             | 30   | 12,600                | -       | -                       | 7       | 2,940                   | 26                | 10,920 |
| - Corte y acarreo                            |          | 420             | -    | -                     | 15      | 6,300                   | -       | -                       | -                 | -      |
| - Desgranada                                 |          | 420             | -    | -                     | 5       | 2,100                   | 2       | 840                     | -                 | -      |
| 2) Materiales                                |          |                 |      |                       |         |                         |         |                         |                   |        |
| - Semilla (Algodon)                          | (kg)     | 430             | 7    | 3,010                 | -       | -                       | -       | -                       | -                 | -      |
| - Semilla (Maní)                             | (kg)     | 240             | -    | -                     | -       | -                       | -       | -                       | 60                | 14,400 |
| - Semilla (Maíz)                             | (kg)     | 90              | -    | -                     | -       | -                       | 15      | 1,350                   | -                 | -      |
| - Certificada (Maíz)                         | (kg)     | 230             | -    | -                     | 15      | 3,450                   | -       | -                       | -                 | -      |
| - Urea                                       | (kg)     | 136             | 181  | 24,616                | 91      | 12,376                  | 91      | 12,376                  | -                 | -      |
| - Abono completo                             | (kg)     | 141             | 91   | 12,831                | -       | -                       | -       | -                       | -                 | -      |
| - Vitavax                                    | (kg)     | 3,520           | -    | -                     | -       | -                       | -       | -                       | 0.45              | 1,584  |
| - Larvín                                     | (lt)     | 7,800           | 0.2  | 1,560                 | 0.2     | 1,560                   | 0.2     | 1,560                   | -                 | -      |
| - Lazo                                       | (lt)     | 1,800           | 2    | 3,600                 | 2       | 3,600                   | 2       | 3,600                   | 2                 | 3,600  |
| - Afalon                                     | (lt)     | 2,500           | -    | -                     | 0.7     | 1,750                   | 0.7     | 1,750                   | -                 | -      |
| - Gessagard                                  | (kg)     | 4,700           | 1    | 4,700                 | -       | -                       | -       | -                       | 1                 | 4,700  |
| - Nuvacron                                   | (lt)     | 3,650           | 1.5  | 5,475                 | -       | -                       | -       | -                       | 1                 | 3,650  |
| - Karate                                     | (lt)     | 8,720           | 1    | 8,720                 | -       | -                       | -       | -                       | -                 | -      |
| - Lorsban                                    | (lt)     | 5,600           | 1.5  | 8,400                 | 1.2     | 6,720                   | 2       | 11,200                  | 1                 | 5,600  |
| - Monitor                                    | (lt)     | 3,700           | -    | -                     | -       | -                       | -       | -                       | 1                 | 3,700  |
| - Agua                                       | (lt)     | 90              | -    | -                     | 7       | 630                     | 2       | 180                     | -                 | -      |
| 3) Equipos                                   |          |                 |      |                       |         |                         |         |                         |                   |        |
| - Preparación de suelo                       | (ha)     | 12,000          | 1    | 12,000                | 1       | 12,000                  | 1       | 12,000                  | 1                 | 12,000 |
| - Desgranada (Maíz)                          | (t)      | 4,400           | -    | -                     | 3.4     | 14,960                  | 1.3     | 5,720                   | -                 | -      |
| - Desgranada (Maní)                          | (t)      | 5,500           | -    | -                     | -       | -                       | -       | -                       | 1.1               | 6,050  |
| - Transporte (Algodón)                       | (t)      | 3,300           | 1.2  | 3,960                 | -       | -                       | -       | -                       | -                 | -      |
| 2. Gastos Imprevistos                        |          |                 |      |                       |         |                         |         |                         |                   |        |
| 1) Imprevistos y Gastos de Administración *1 |          |                 |      | 12,919                | 8,393   | 6,612                   | 8,020   |                         |                   |        |
| Total                                        |          |                 |      | 142,111               | 92,319  | 72,728                  | 88,224  |                         |                   |        |
| III. INGRESO NETO                            |          |                 |      | 252,689               | 166,081 | 41,272                  | 121,076 |                         |                   |        |

\*1 10% de costo de producción.

Nota: SR = Sin Riego, CR = Con Riego.

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (4/9)

|                                              |          | Maní - Verano<br>(CR) |         | Haba - Invierno<br>(SR) |         | Haba - Verano<br>(CR) |         | Frejor Caupí-Invierno<br>(SR) |         |
|----------------------------------------------|----------|-----------------------|---------|-------------------------|---------|-----------------------|---------|-------------------------------|---------|
|                                              |          |                       |         |                         |         |                       |         |                               |         |
| I. VALOR DE LA PRODUCCION TOTAL              |          |                       |         |                         |         |                       |         |                               |         |
| 1) Rendimiento                               |          | (t/ha)                | 1.8     | (t/ha)                  | 1.6     | (t/ha)                | 1.6     | (t/ha)                        | 1.2     |
| 2) Precio por Unidad de Medida               |          | (\$/t)                | 161,000 | (\$/t)                  | 410,000 | (\$/t)                | 410,000 | (\$/t)                        | 240,000 |
| 3) Valor de la Producción Total              |          | (\$/ha)               | 289,800 | (\$/ha)                 | 656,000 | (\$/ha)               | 656,000 | (\$/ha)                       | 288,000 |
|                                              |          |                       |         |                         |         |                       |         |                               |         |
|                                              |          | Costo                 |         |                         |         |                       |         |                               |         |
|                                              |          | Unit.                 | Can     | Total                   | Cand    | Total                 | Cand    | Total                         | Cand    |
|                                              |          | (Unidad)              |         | (\$/.)                  |         | (\$/.)                |         | (\$/.)                        |         |
| II. TOTAL GASTOS                             |          |                       |         |                         |         |                       |         |                               |         |
| 1. Costo de Producción                       |          |                       |         |                         |         |                       |         |                               |         |
| 1) Labores                                   | (Jornal) |                       |         |                         |         |                       |         |                               |         |
| - Arreglo de surco                           |          | 420                   | 3       | 1,260                   | -       | -                     | 4       | 1,680                         | -       |
| - Control de maleza                          | - Quimi  | 560                   | 2       | 1,120                   | -       | -                     | -       | -                             | 2       |
|                                              | - Manual | 420                   | 10      | 4,200                   | 35      | 14,700                | 30      | 12,600                        | -       |
| - Siembra                                    |          | 420                   | 10      | 4,200                   | 5       | 2,100                 | 5       | 2,100                         | 4       |
| - Raleo                                      |          | 420                   | -       | -                       | -       | -                     | -       | -                             | 2       |
| - Deshierba manual                           |          | 420                   | -       | -                       | -       | -                     | -       | -                             | 20      |
| - Tutorio                                    |          | 420                   | -       | -                       | 10      | 4,200                 | 10      | 4,200                         | -       |
| - Amarre                                     |          | 420                   | -       | -                       | 4       | 1,680                 | 4       | 1,680                         | -       |
| - Control fitosanitario                      |          | 560                   | 8       | 4,480                   | 20      | 11,200                | 20      | 11,200                        | 14      |
| - Riego                                      |          | 420                   | 16      | 6,720                   | -       | -                     | 30      | 12,600                        | -       |
| - Cosecha                                    |          | 420                   | 38      | 15,960                  | 35      | 14,700                | 50      | 21,000                        | 18      |
| 2) Materiales                                |          |                       |         |                         |         |                       |         |                               |         |
| - Semilla (Maní)                             | (kg)     | 260                   | 60      | 15,600                  | -       | -                     | -       | -                             | -       |
| - Semilla (Haba)                             | (kg)     | 250                   | -       | -                       | 10      | 2,500                 | 10      | 2,500                         | -       |
| - Semilla (Frejor)                           | (kg)     | 130                   | -       | -                       | -       | -                     | -       | -                             | 7       |
| - Vitavax                                    | (kg)     | 3,520                 | 0.45    | 1,584                   | -       | -                     | -       | -                             | -       |
| - Larvin                                     | (lt)     | 7,800                 | -       | -                       | 0.1     | 780                   | 0.1     | 780                           | -       |
| - Estaca                                     | (Estaca) | 10                    | -       | -                       | 400     | 4,000                 | 400     | 4,000                         | -       |
| - Alambre                                    | (kg)     | 200                   | -       | -                       | 9.1     | 1,820                 | 9.1     | 1,820                         | -       |
| - Lazo                                       | (lt)     | 1,800                 | 2       | 3,600                   | -       | -                     | -       | -                             | 2       |
| - Afalon                                     | (lt)     | 2,500                 | -       | -                       | -       | -                     | -       | -                             | 1       |
| - Gramoxone                                  | (lt)     | 1,300                 | -       | -                       | -       | -                     | -       | -                             | 1.5     |
| - Gessagard                                  | (kg)     | 4,700                 | 1       | 4,700                   | -       | -                     | -       | -                             | -       |
| - Nuvacron                                   | (lt)     | 3,650                 | 1       | 3,650                   | 1       | 3,650                 | 2       | 7,300                         | -       |
| - Lorsban                                    | (lt)     | 5,600                 | 1       | 5,600                   | -       | -                     | -       | -                             | -       |
| - Mavrik                                     | (lt)     | 10,000                | 0.4     | 4,000                   | 1       | 10,000                | 2       | 20,000                        | -       |
| - Morestan                                   | (kg)     | 8,000                 | -       | -                       | -       | -                     | 0.75    | 6,000                         | -       |
| - Topsin                                     | (kg)     | 9,000                 | -       | -                       | -       | -                     | 0.5     | 4,500                         | -       |
| - Mancozeb                                   | (kg)     | 1,720                 | -       | -                       | 4.5     | 7,740                 | 2.7     | 4,644                         | -       |
| - Oxiclor                                    | (kg)     | 1,365                 | -       | -                       | 4.5     | 6,143                 | 2.7     | 3,686                         | -       |
| - Lonzin                                     | (kg)     | 1,870                 | -       | -                       | -       | -                     | 4.5     | 8,415                         | -       |
| - Furadan 98                                 | (kg)     | 7,000                 | -       | -                       | -       | -                     | -       | -                             | 0.09    |
| - Monitor                                    | (lt)     | 3,700                 | -       | -                       | 2       | 7,400                 | 2       | 7,400                         | 2       |
| - Azodrin                                    | (lt)     | 3,800                 | -       | -                       | -       | -                     | -       | -                             | 1       |
| - Maneb-50                                   | (kg)     | 1,290                 | -       | -                       | -       | -                     | -       | -                             | 1       |
| - Agua                                       | )        | 90                    | 8       | 720                     | -       | -                     | 15      | 1,350                         | -       |
| 3) Equipos                                   |          |                       |         |                         |         |                       |         |                               |         |
| - Preparación de suelo                       | (ha)     | 12,000                | 1       | 12,000                  | 1       | 12,000                | 1       | 12,000                        | 1       |
| - Desgranada (Maní)                          | (kg)     | 5,500                 | 1.8     | 9,900                   | -       | -                     | -       | -                             | -       |
| 2. Gastos Imprevistos                        |          |                       |         |                         |         |                       |         |                               |         |
| 1) Imprevistos y Gastos de Administración *1 |          |                       | 9,929   |                         | 10,461  |                       | 15,146  |                               | 6,152   |
| Total                                        |          |                       | 109,223 |                         | 115,074 |                       | 166,601 |                               | 67,672  |
| III. INGRESO NETO                            |          |                       |         |                         |         |                       |         |                               |         |
|                                              |          |                       | 180,577 |                         | 540,926 |                       | 489,399 |                               | 220,328 |

\*1 10% de costo de producción.

Nota: SR = Sin Riego, CR = Con Riego

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (5/9)

|                                              |  |  | Frejol Caupi-Verano<br>(CR) |         | Camote<br>(SR)  |         | Soya - Invierno<br>(SR) |         | Soya - Verano<br>(CR) |         |                 |
|----------------------------------------------|--|--|-----------------------------|---------|-----------------|---------|-------------------------|---------|-----------------------|---------|-----------------|
| <hr/>                                        |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| I. VALOR DE LA PRODUCCION TOTAL              |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| 1) Rendimiento                               |  |  | (t/ha)                      | 1.5     | (t/ha)          | 10.6    | (t/ha)                  | 1.2     | (t/ha)                | 1.8     |                 |
| 2) Precio por Unidad de Medida               |  |  | (\$/./t)                    | 240,000 | (\$/./t)        | 22,000  | (\$/./t)                | 130,000 | (\$/./t)              | 130,000 |                 |
| 3) Valor de la Producción Total              |  |  | (\$/.)                      | 360,000 | (\$/.)          | 233,200 | (\$/.)                  | 156,000 | (\$/.)                | 234,000 |                 |
| <hr/>                                        |  |  |                             |         |                 |         |                         |         |                       |         |                 |
|                                              |  |  | Costo<br>Unit.<br>(\$/.)    |         |                 |         |                         |         |                       |         |                 |
| II. TOTAL GASTOS                             |  |  | (Unidad)                    | Cand.   | Total<br>(\$/.) | Cand.   | Total<br>(\$/.)         | Cand.   | Total<br>(\$/.)       | Cand.   | Total<br>(\$/.) |
| <hr/>                                        |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| 1. Costo de Producción                       |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| 1) Labores (Jornal)                          |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| - Arreglo de surco                           |  |  | 420                         | 4       | 1,680           | -       | -                       | -       | -                     | -       | -               |
| - Limpia y quema                             |  |  | 420                         | -       | -               | 15      | 6,300                   | -       | -                     | -       | -               |
| - Recolección de material                    |  |  | 420                         | -       | -               | 6       | 2,520                   | -       | -                     | -       | -               |
| - Transplante                                |  |  | 420                         | -       | -               | 70      | 29,400                  | -       | -                     | -       | -               |
| - Control de maleza - Químico                |  |  | 560                         | 2       | 1,120           | -       | -                       | 2       | 1,120                 | 2       | 1,120           |
| - Manual                                     |  |  | 420                         | 20      | 8,400           | -       | -                       | 4       | 1,680                 | 4       | 1,680           |
| - Siembra                                    |  |  | 420                         | 4       | 1,680           | -       | -                       | -       | -                     | -       | -               |
| - Siembra y resiembra                        |  |  | 420                         | -       | -               | -       | -                       | 22      | 9,240                 | 22      | 9,240           |
| - Raleo                                      |  |  | 420                         | 2       | 840             | -       | -                       | -       | -                     | -       | -               |
| - Fertilización                              |  |  | 420                         | -       | -               | 4       | 1,680                   | -       | -                     | -       | -               |
| - Control fitosanitario                      |  |  | 560                         | 18      | 10,080          | 4       | 2,240                   | 4       | 2,240                 | 6       | 3,360           |
| - Deshierba                                  |  |  | 420                         | -       | -               | 18      | 7,560                   | -       | -                     | -       | -               |
| - Riego                                      |  |  | 420                         | 16      | 6,720           | 4       | 1,680                   | -       | -                     | 18      | 7,560           |
| - Cosecha                                    |  |  | 420                         | 20      | 8,400           | 30      | 12,600                  | -       | -                     | -       | -               |
| - Corte, amontonada y acarreo                |  |  | 420                         | -       | -               | -       | -                       | 12      | 5,040                 | 20      | 8,400           |
| - Trillada y limpieza                        |  |  | 420                         | -       | -               | -       | -                       | 1       | 420                   | 2       | 840             |
| 2) Materiales                                |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| - Semilla (Frejol) (kg)                      |  |  | 150                         | 7       | 1,050           | -       | -                       | -       | -                     | -       | -               |
| - Semilla (Soya) (kg)                        |  |  | 150                         | -       | -               | -       | -                       | 45      | 6,750                 | 45      | 6,750           |
| - Urea (kg)                                  |  |  | 136                         | -       | -               | 91      | 12,376                  | -       | -                     | -       | -               |
| - Incolante (kg)                             |  |  | 3,300                       | -       | -               | -       | -                       | 0.45    | 1,485                 | 0.45    | 1,485           |
| - Lazo (lt)                                  |  |  | 1,800                       | -       | -               | -       | -                       | 2       | 3,600                 | 2       | 3,600           |
| - Dual (lt)                                  |  |  | 2,400                       | 1.5     | 3,600           | -       | -                       | -       | -                     | -       | -               |
| - Gessagard (kg)                             |  |  | 4,700                       | -       | -               | -       | -                       | 1       | 4,700                 | 1       | 4,700           |
| - Ambush (lt)                                |  |  | 21,340                      | -       | -               | -       | -                       | 0.2     | 4,268                 | 0.3     | 6,402           |
| - Nuvacron (lt)                              |  |  | 3,650                       | -       | -               | -       | -                       | 1       | 3,650                 | 1       | 3,650           |
| - Mavrik (lt)                                |  |  | 10,000                      | 1       | 10,000          | -       | -                       | -       | -                     | -       | -               |
| - Morestan (kg)                              |  |  | 8,000                       | 0.5     | 4,000           | -       | -                       | -       | -                     | -       | -               |
| - Topsin (kg)                                |  |  | 9,000                       | 1       | 9,000           | -       | -                       | -       | -                     | -       | -               |
| - Lannate (kg)                               |  |  | 16,200                      | -       | -               | 0.2     | 3,240                   | -       | -                     | -       | -               |
| - Mancozeb (kg)                              |  |  | 1,720                       | 2.3     | 3,956           | -       | -                       | -       | -                     | -       | -               |
| - Furadan 98 (kg)                            |  |  | 7,000                       | 0.1     | 700             | -       | -                       | -       | -                     | -       | -               |
| - Monitor (lt)                               |  |  | 3,700                       | 1.5     | 5,550           | -       | -                       | -       | -                     | -       | -               |
| - Maneb-80 (kg)                              |  |  | 1,590                       | 2.3     | 3,657           | -       | -                       | -       | -                     | -       | -               |
| - Agua (Riego)                               |  |  | 90                          | 8       | 720             | 2       | 180                     | -       | -                     | 8       | 720             |
| 3) Equipos                                   |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| - Preparación de suelo (ha)                  |  |  | 12,000                      | 1       | 12,000          | -       | -                       | 1       | 12,000                | 1       | 12,000          |
| - Trillada y limpieza (t)                    |  |  | 1,200                       | -       | -               | -       | -                       | 1.2     | 1,440                 | 2.7     | 3,240           |
| <hr/>                                        |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| 2. Gastos Imprevistos                        |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| 1) Imprevistos y Gastos de Administración *1 |  |  |                             |         |                 |         |                         |         |                       |         |                 |
|                                              |  |  |                             | 9,315   |                 | 7,978   |                         | 5,763   |                       | 7,475   |                 |
| Total                                        |  |  |                             | 102,468 |                 | 87,754  |                         | 63,396  |                       | 82,222  |                 |
| <hr/>                                        |  |  |                             |         |                 |         |                         |         |                       |         |                 |
| III. INGRESO NETO                            |  |  |                             | 257,532 |                 | 145,446 |                         | 92,604  |                       | 152,966 |                 |

\*1 10% de costo de producción.

Nota: SR = Sin Riego, CR = Con Riego

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (6/9)

|                                                  |  |  | Marigold-Verano<br>(CR)           |                       | Pimiento-Invierno<br>(SR) |                       | Pimiento - Verano<br>(CR) |                       | Pepino - Invierno<br>(SR) |         |
|--------------------------------------------------|--|--|-----------------------------------|-----------------------|---------------------------|-----------------------|---------------------------|-----------------------|---------------------------|---------|
| <hr/>                                            |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| I. VALOR DE LA PRODUCCION TOTAL                  |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| 1) Rendimiento                                   |  |  | (t/ha)                            | 12                    | (t/ha)                    | 5.6                   | (t/ha)                    | 6.0                   | (U/ha)                    | 30,000  |
| 2) Precio por Unidad de Medida                   |  |  | (\$/t)                            | 30,000                | (\$/t)                    | 102,000               | (\$/t)                    | 102,000               | (\$/U)                    | 7       |
| 3) Valor de la Producción Total                  |  |  | (\$/.)                            | 360,000               | (\$/.)                    | 571,200               | (\$/.)                    | 612,000               | (\$/.)                    | 210,000 |
| <hr/>                                            |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| II. TOTAL GASTOS                                 |  |  | Costo<br>Unit.<br>(Unidad) (\$/.) | Cand. Total<br>(\$/.) | Cand. Total<br>(\$/.)     | Cand. Total<br>(\$/.) | Cand. Total<br>(\$/.)     | Cand. Total<br>(\$/.) | Cand. Total<br>(\$/.)     |         |
| <hr/>                                            |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| 1. Costo de Producción                           |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| 1) Labores (Jornal)                              |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| - Arreglo de surco                               |  |  | 420                               | 4 1,680               | 4 1,680                   | 4 1,680               | 4 1,680                   | 4 1,680               | 4 1,680                   |         |
| - Const. y siembra sem.                          |  |  | 420                               | 3 1,260               | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Prep. desinf. y siem.                          |  |  | 420                               | - -                   | 6 2,520                   | 6 2,520               | - -                       | - -                   | - -                       |         |
| - Transplante                                    |  |  | 420                               | 20 8,400              | 30 12,600                 | 30 12,600             | - -                       | - -                   | - -                       |         |
| - Control de maleza - Químico                    |  |  | 560                               | 2 1,120               | - -                       | - -                   | - -                       | 2 1,120               | - -                       |         |
| - Control de maleza - Manual                     |  |  | 420                               | 20 8,400              | 40 16,800                 | 25 10,500             | 8 3,360                   | 8 3,360               | 6 2,520                   |         |
| - Siembra                                        |  |  | 420                               | - -                   | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Fertilización                                  |  |  | 420                               | 4 1,680               | 8 3,360                   | 8 3,360               | - -                       | - -                   | - -                       |         |
| - Aplic. pest. semillero                         |  |  | 420                               | - -                   | 1 420                     | 1 420                 | - -                       | - -                   | - -                       |         |
| - Aplic. pest. campo                             |  |  | 420                               | - -                   | 20 8,400                  | 20 8,400              | - -                       | - -                   | - -                       |         |
| - Riego y control fitosa-<br>nitario (semillero) |  |  | 420                               | 2 840                 | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Control fitosanitario                          |  |  | 560                               | 8 4,480               | - -                       | - -                   | - -                       | 16 8,960              | - -                       |         |
| - Riegos                                         |  |  | 420                               | 30 12,600             | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Riego semillero                                |  |  | 420                               | - -                   | 2 840                     | 2 840                 | - -                       | - -                   | - -                       |         |
| - Riego campo                                    |  |  | 420                               | - -                   | - -                       | 30 12,600             | - -                       | - -                   | - -                       |         |
| - Cosecha                                        |  |  | 420                               | 60 25,200             | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Cosecha y acarreo                              |  |  | 420                               | - -                   | - -                       | - -                   | - -                       | 20 8,400              | - -                       |         |
| - Cosecha, acarreo y empac.                      |  |  | 420                               | - -                   | 120 50,400                | 120 50,400            | - -                       | - -                   | - -                       |         |
| 2) Materiales                                    |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| - Semilla (kg) *2                                |  |  | 0.45 4,460                        | 0.91 24,300           | 0.91 24,300               | 0.91 24,300           | 0.91 18,470               | - -                   | - -                       |         |
| - Urea (kg) 136                                  |  |  | 363 49,368                        | 181 24,616            | 181 24,616                | 181 24,616            | 91 12,376                 | - -                   | - -                       |         |
| - Abono com. (kg) 141                            |  |  | - -                               | - -                   | - -                       | - -                   | 136 19,176                | - -                   | - -                       |         |
| - Dual (lt) 2,200                                |  |  | - -                               | - -                   | - -                       | - -                   | 2 4,400                   | - -                   | - -                       |         |
| - Malexone (lt) 1,700                            |  |  | 3 5,100                           | - -                   | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Pillaron (lt) 4,000                            |  |  | - -                               | 1 4,000               | 1 4,000                   | 1 4,000               | - -                       | - -                   | - -                       |         |
| - Dimecron (lt) 7,100                            |  |  | - -                               | 3 21,300              | 3 21,300                  | 3 21,300              | - -                       | - -                   | - -                       |         |
| - Cuprosan (kg) 1,540                            |  |  | - -                               | 2.72 4,189            | 2.72 4,189                | 2.72 4,189            | - -                       | - -                   | - -                       |         |
| - Tricarbamix (kg) 2,200                         |  |  | - -                               | 3.63 7,986            | 3.63 7,986                | 3.63 7,986            | - -                       | - -                   | - -                       |         |
| - Vitavax (kg) 3,520                             |  |  | - -                               | 1.82 6,406            | 1.82 6,406                | 1.82 6,406            | - -                       | - -                   | - -                       |         |
| - Terraclor (kg) 3,960                           |  |  | - -                               | 1.82 7,207            | 1.82 7,207                | 1.82 7,207            | - -                       | - -                   | - -                       |         |
| - Nuvacron (lt) 3,650                            |  |  | - -                               | - -                   | - -                       | - -                   | 2 7,300                   | - -                   | - -                       |         |
| - Mavrik (lt) 10,000                             |  |  | - -                               | 1 10,000              | 1 10,000                  | 1 10,000              | 0.5 5,000                 | - -                   | - -                       |         |
| - Topsin (kg) 9,000                              |  |  | - -                               | - -                   | - -                       | - -                   | 1 9,000                   | - -                   | - -                       |         |
| - Daconil (kg) 2,100                             |  |  | - -                               | - -                   | - -                       | - -                   | 2 4,200                   | - -                   | - -                       |         |
| - Lannate (kg) 16,200                            |  |  | 0.3 4,860                         | - -                   | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Monitor (lt) 3,700                             |  |  | 3 11,100                          | 2 7,400               | 2 7,400                   | 2 7,400               | - -                       | - -                   | - -                       |         |
| - Benlate (kg) 13,500                            |  |  | 0.3 4,050                         | - -                   | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Bayfolan (lt) 1,200                            |  |  | 4 4,800                           | - -                   | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| - Agua (Riego/ha) 90                             |  |  | 15 1,350                          | - -                   | 15 1,350                  | - -                   | - -                       | - -                   | - -                       |         |
| 3) Equipos                                       |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| - Prepar. suelo (ha) 12,000                      |  |  | 1 12,000                          | 1 12,000              | 1 12,000                  | 1 12,000              | 1 12,000                  | - -                   | - -                       |         |
| - Transporte (Carro) (t) 2,670                   |  |  | 12 32,040                         | - -                   | - -                       | - -                   | - -                       | - -                   | - -                       |         |
| <hr/>                                            |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| 2. Gastos Imprevistos                            |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| 1) Imprevistos y Gasto de Administración*1       |  |  |                                   | 19,479                | 22,642                    | 23,407                | 12,132                    |                       |                           |         |
| Total                                            |  |  |                                   | 214,267               | 249,066                   | 257,481               | 133,454                   |                       |                           |         |
| <hr/>                                            |  |  |                                   |                       |                           |                       |                           |                       |                           |         |
| III. INGRESO NETO                                |  |  |                                   | 145,733               | 322,134                   | 354,519               | 76,546                    |                       |                           |         |

\*1 10% de costo de producción.

\*2 Marigold: \$/9.910/kg

Pimiento: \$/26.700/kg

Pepino: \$/20.300/kg

Nota: SR = Sin Riego, CR = Con Riego



Tabla 5.4 INGRESO NETO POR HÉCTAREA SIN EL PROYECTO (7/9)

|                                             |            | Pepino - Verano<br>(CR)    |       | Tomate - Invierno<br>(SR) |                | Tomate - Verano<br>(CR) |                | Melón - Invierno<br>(SR) |                |         |
|---------------------------------------------|------------|----------------------------|-------|---------------------------|----------------|-------------------------|----------------|--------------------------|----------------|---------|
|                                             |            |                            |       |                           |                |                         |                |                          |                |         |
| I. VALOR DE LA PRODUCCION TOTAL             |            |                            |       |                           |                |                         |                |                          |                |         |
| 1) Rendimiento                              | (U/ha)     | 50,000                     |       | (t/ha)                    | 6.5            | (t/ha)                  | 25.0           | (t/ha)                   | 10.0           |         |
| 2) Precio por Unidad de Medida              | (S./U)     | 7                          |       | (S./t)                    | 37,000         | (S./t)                  | 37,000         | (S./t)                   | 27,000         |         |
| 3) Valor de la Producción Total             | (S/.)      | 350,000                    |       | (S/.)                     | 240,500        | (S/.)                   | 925,000        | (S/.)                    | 270,000        |         |
|                                             |            |                            |       |                           |                |                         |                |                          |                |         |
| II. TOTAL GASTOS                            |            | Costo<br>Unid.<br>(Unidad) | (S/.) | Cand.                     | Total<br>(S/.) | Cand.                   | Total<br>(S/.) | Cand.                    | Total<br>(S/.) |         |
|                                             |            |                            |       |                           |                |                         |                |                          |                |         |
| 1. Costo de Producción                      |            |                            |       |                           |                |                         |                |                          |                |         |
| 1) Labores                                  |            | (Jornal)                   |       |                           |                |                         |                |                          |                |         |
| - Arreglo de surco                          |            | 420                        | 4     | 1,680                     | 4              | 1,680                   | 4              | 1,680                    | 4              | 1,680   |
| - Siembra semillero y riego                 |            | 420                        | -     | -                         | 3              | 1,260                   | 3              | 1,260                    | -              | -       |
| - Prep. desinf. y siem.                     |            | 420                        | -     | -                         | 2              | 840                     | 2              | 840                      | -              | -       |
| - Transplante                               |            | 420                        | -     | -                         | 14             | 5,880                   | 14             | 5,880                    | -              | -       |
| - Control de maleza - Químico               |            | 560                        | 2     | 1,120                     | -              | -                       | -              | -                        | -              | -       |
| - Manual                                    |            | 420                        | 8     | 3,360                     | -              | -                       | -              | -                        | 18             | 7,560   |
| - Siembra                                   |            | 420                        | 8     | 3,360                     | -              | -                       | -              | -                        | 6              | 2,520   |
| - Fertilización                             |            | 420                        | 6     | 2,520                     | -              | -                       | -              | -                        | 8              | 3,360   |
| - Fertilización y aporque                   |            | 420                        | -     | -                         | 6              | 2,520                   | 12             | 5,040                    | -              | -       |
| - Control fitosanitario                     |            | 560                        | 16    | 8,960                     | 15             | -                       | 30             | 16,800                   | 20             | 11,200  |
| - Deshierba                                 |            | 420                        | -     | -                         | 20             | 16,800                  | 30             | 12,600                   | -              | -       |
| - Riegos                                    |            | 420                        | 18    | 7,560                     | -              | -                       | 30             | 12,600                   | -              | -       |
| - Tutorio                                   |            | 420                        | -     | -                         | 6              | 2,520                   | -              | -                        | -              | -       |
| - Amarre                                    |            | 420                        | -     | -                         | 79             | 33,180                  | -              | -                        | -              | -       |
| - Cosecha                                   |            | 420                        | -     | -                         | 39             | 16,380                  | 140            | 58,800                   | -              | -       |
| - Cosecha y acarreo                         |            | 420                        | 20    | 8,400                     | -              | -                       | -              | -                        | 18             | 7,560   |
| 2) Materiales                               |            |                            |       |                           |                |                         |                |                          | *3             |         |
| - Semilla                                   | (kg)       | *2                         | 0.91  | 18,473                    | 0.14           | 3,710                   | 0.14           | 3,710                    | 0.45           | 11,925  |
| - Urea                                      | (kg)       | 136                        | 91    | 12,376                    | 68             | 9,248                   | 136            | 18,496                   | 136            | 18,496  |
| - Abono com.                                | (kg)       | 141                        | 136   | 19,176                    | 68             | 9,588                   | 136            | 19,176                   | 136            | 19,176  |
| - Orthocide                                 | (kg)       | 1,320                      | -     | -                         | 0.23           | 304                     | 0.45           | 594                      | -              | -       |
| - Dual                                      | (lt)       | 2,400                      | 2     | 4,800                     | -              | -                       | -              | -                        | -              | -       |
| - Evicet                                    | (kg)       | 9,500                      | -     | -                         | 0.75           | 7,125                   | 1.5            | 14,250                   | -              | -       |
| - Desis                                     | (lt)       | 12,000                     | -     | -                         | 0.5            | 6,000                   | 1              | 12,000                   | -              | -       |
| - Lorsban                                   | (kg)       | 5,600                      | -     | -                         | 0.9            | 5,040                   | 1.8            | 10,080                   | -              | -       |
| - Oxiclor                                   | (kg)       | 1,365                      | -     | -                         | 3.4            | 4,641                   | 6.8            | 9,282                    | 5.4            | 7,371   |
| - Triciman                                  | (kg)       | 1,890                      | -     | -                         | 2.25           | 4,253                   | 4.5            | 8,505                    | -              | -       |
| - Fenon                                     | (lt)       | 10,950                     | -     | -                         | 0.75           | 8,213                   | 1.5            | 16,425                   | -              | -       |
| - Tricarbamix                               | (kg)       | 2,200                      | -     | -                         | 2.25           | 4,950                   | 4.5            | 9,900                    | -              | -       |
| - Nuvacron                                  | (lt)       | 3,650                      | 2     | 7,300                     | 1              | 3,650                   | 2              | 7,300                    | 2              | 7,300   |
| - Mavrik                                    | (lt)       | 10,000                     | 0.5   | 5,000                     | -              | -                       | -              | -                        | 0.5            | 5,000   |
| - Karate                                    | (lt)       | 8,720                      | -     | -                         | -              | -                       | -              | -                        | 0.5            | 4,360   |
| - Morestan                                  | (kg)       | 8,000                      | -     | -                         | -              | -                       | -              | -                        | 1.5            | 12,000  |
| - Topsin                                    | (kg)       | 9,000                      | 1     | 9,000                     | -              | -                       | -              | -                        | 3              | 27,000  |
| - Daconil                                   | (kg)       | 2,100                      | 2     | 4,200                     | -              | -                       | -              | -                        | -              | -       |
| - Mancozeb                                  | (kg)       | 1,720                      | -     | -                         | 3.4            | 5,848                   | 4.5            | 7,740                    | -              | -       |
| - Furadan 5%                                | (kg)       | 950                        | -     | -                         | 0.5            | 475                     | 1              | 950                      | 15             | 14,250  |
| - Piola                                     | (kg)       | 2,000                      | -     | -                         | 2              | 4,000                   | -              | -                        | -              | -       |
| - Alambre                                   | (kg)       | 70                         | -     | -                         | 12.5           | 875                     | -              | -                        | -              | -       |
| - Estaca                                    | (Unidad)   | 10                         | -     | -                         | 625            | 6,250                   | -              | -                        | -              | -       |
| - Agua                                      | (Riego/ha) | 90                         | 9     | 810                       | -              | -                       | 15             | 1,350                    | -              | -       |
| 3) Equipos                                  |            |                            |       |                           |                |                         |                |                          |                |         |
| - Prepar. suelo                             | (ha)       | 12,000                     | 1     | 12,000                    | 1              | 12,000                  | 1              | 12,000                   | 1              | 12,000  |
| 2. Gastos Imprevistos                       |            |                            |       |                           |                |                         |                |                          |                |         |
| 1) Imprevistos y Gasto de Administración *1 |            |                            |       | 13,010                    |                | 17,723                  |                | 26,726                   |                | 17,276  |
| Total                                       |            |                            |       | 143,105                   |                | 194,953                 |                | 293,984                  |                | 190,034 |
| III. INGRESO NETO                           |            |                            |       |                           |                |                         |                |                          |                |         |
|                                             |            |                            |       | 206,895                   |                | 45,547                  |                | 631,016                  |                | 79,966  |

\*1 10% de costo de producción.

\*2 Pepino: S/.20.300/kg

Tomate y Melón: S/.26.500/kg

\*3 Edisto 47

Nota: SR = Sin Riego, CR = Con Riego

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (8/9)

|                                             |            | Melón - Verano<br>(CR)             |         | Sandía - Invierno<br>(SR) |         | Sandía - Verano<br>(CR) |         |                  |
|---------------------------------------------|------------|------------------------------------|---------|---------------------------|---------|-------------------------|---------|------------------|
| <hr/>                                       |            |                                    |         |                           |         |                         |         |                  |
| <b>I. VALOR DE LA PRODUCCION TOTAL</b>      |            |                                    |         |                           |         |                         |         |                  |
| 1) Rendimiento                              |            | (t/ha)                             | 13.0    | (t/ha)                    | 14.0    | (t/ha)                  | 15.0    |                  |
| 2) Precio por Unidad de Medida              |            | (\$./t)                            | 27,000  | (\$./t)                   | 58,000  | (\$./t)                 | 58,000  |                  |
| 3) Valor de la Producción Total             |            | (\$./.)                            | 351,000 | (\$./.)                   | 812,000 | (\$./.)                 | 870,000 |                  |
| <hr/>                                       |            |                                    |         |                           |         |                         |         |                  |
|                                             |            | Costo<br>Unit.<br>(Unidad) (\$./.) | Cand.   | Total<br>(\$./.)          | Cand.   | Total<br>(\$./.)        | Cand.   | Total<br>(\$./.) |
|                                             |            |                                    |         |                           |         |                         |         |                  |
| <hr/>                                       |            |                                    |         |                           |         |                         |         |                  |
| <b>II. TOTAL GASTOS</b>                     |            |                                    |         |                           |         |                         |         |                  |
| <hr/>                                       |            |                                    |         |                           |         |                         |         |                  |
| <b>1. Costo de Producción</b>               |            |                                    |         |                           |         |                         |         |                  |
| 1) Labores                                  | (Jornal)   |                                    |         |                           |         |                         |         |                  |
| - Arreglo de surco                          |            | 420                                | 4       | 1,680                     | 2       | 840                     | 2       | 840              |
| - Prep. vivero y siemb.                     |            | 420                                | -       | -                         | 4       | 1,680                   | 4       | 1,680            |
| - Transplante                               |            | 420                                | -       | -                         | 8       | 3,360                   | 8       | 3,360            |
| - Control de maleza - Químico               |            | 560                                | -       | -                         | 4       | 2,240                   | 4       | 2,240            |
| - Manual                                    |            | 420                                | 15      | 6,300                     | 14      | 5,880                   | 14      | 5,880            |
| - Siembra                                   |            | 420                                | 6       | 2,520                     | -       | -                       | -       | -                |
| - Fertilización                             |            | 420                                | 8       | 3,360                     | 8       | 3,360                   | 8       | 3,360            |
| - Control fitosanitario                     |            | 560                                | 20      | 11,200                    | 24      | 13,440                  | 24      | 13,440           |
| - Riegos                                    |            | 420                                | 20      | 8,400                     | -       | -                       | 26      | 10,920           |
| - Cosecha y acarreo                         |            | 420                                | 25      | 10,500                    | 60      | 25,200                  | 60      | 25,200           |
| 2) Materiales                               |            |                                    | *2      |                           | *3      |                         | *3      |                  |
| - Semilla                                   | (kg)       | 26,500                             | 0.45    | 11,925                    | 0.45    | 27,900                  | 0.45    | 27,900           |
| - Fundas de polietileno                     | (Millar)   | 700                                | -       | -                         | 5       | 3,500                   | 5       | 3,500            |
| - Urea                                      | (kg)       | 136                                | 136     | 18,496                    | 91      | 12,376                  | 91      | 12,376           |
| - Abono com.                                | (kg)       | 141                                | 136     | 19,176                    | 136     | 19,176                  | 136     | 19,176           |
| - Sulfato de Amonio.                        | (kg)       | 62                                 | -       | -                         | 136     | 8,432                   | 136     | 8,432            |
| - Dual                                      | (lt)       | 2,400                              | -       | -                         | 1       | 2,400                   | 1       | 2,400            |
| - Oxiclor                                   | (kg)       | 1,365                              | 3.6     | 4,914                     | 3.6     | 4,914                   | 3.6     | 4,914            |
| - Nuvacron                                  | (lt)       | 3,650                              | 2       | 7,300                     | 3       | 10,950                  | 3       | 10,950           |
| - Mavrik                                    | (lt)       | 10,000                             | 0.5     | 5,000                     | 1.2     | 12,000                  | 1.2     | 12,000           |
| - Karate                                    | (lt)       | 8,720                              | 1       | 8,720                     | 1       | 8,720                   | 1       | 8,720            |
| - Temik                                     | (kg)       | 2,000                              | 15      | 30,000                    | -       | -                       | 15      | 30,000           |
| - Morestan                                  | (kg)       | 8,000                              | 1       | 8,000                     | 1.5     | 12,000                  | 1.5     | 12,000           |
| - Topsin                                    | (kg)       | 9,000                              | 3       | 27,000                    | 5       | 45,000                  | 5       | 45,000           |
| - Terraclor                                 | (kg)       | 3,960                              | -       | -                         | 0.91    | 3,604                   | 0.91    | 3,604            |
| - Vitavac                                   | (kg)       | 3,520                              | -       | -                         | 0.91    | 3,203                   | 0.91    | 3,203            |
| - Mancozeb                                  | (kg)       | 1,720                              | -       | -                         | 5.4     | 9,288                   | 5.4     | 9,288            |
| - Furadan 5%                                | (kg)       | 950                                | -       | -                         | 15      | 14,250                  | -       | -                |
| - Agua                                      | (Riego/ha) | 90                                 | 10      | 900                       | -       | -                       | 13      | 1,170            |
| 3) Equipos                                  |            |                                    |         |                           |         |                         |         |                  |
| - Prepar. suelo                             | (ha)       | 12,000                             | 1       | 12,000                    | 1       | 12,000                  | 1       | 12,000           |
| <hr/>                                       |            |                                    |         |                           |         |                         |         |                  |
| <b>2. Gastos Imprevistos</b>                |            |                                    |         |                           |         |                         |         |                  |
| 1) Imprevistos y Gasto de Administración *1 |            |                                    |         | 19,739                    |         | 26,571                  |         | 29,355           |
| Total                                       |            |                                    |         | 217,130                   |         | 292,284                 |         | 322,908          |
| <hr/>                                       |            |                                    |         |                           |         |                         |         |                  |
| <b>III. INGRESO NETO</b>                    |            |                                    |         |                           |         |                         |         |                  |
|                                             |            |                                    |         | 133,870                   |         | 519,716                 |         | 547,092          |

\*1 10% de costo de producción. \*2 Edisto 47 \$/26.500/kg \*3 Royal Charleston, \$/62.000/kg  
 Nota: SR = Sin Riego, CR = Con Riego

Tabla 5.4 INGRESO NETO POR HECTAREA SIN EL PROYECTO (9/9)

| Limon (Semi-tecnificado)                    |        |        |       |              |         |              |         |              |           |              |           |              |
|---------------------------------------------|--------|--------|-------|--------------|---------|--------------|---------|--------------|-----------|--------------|-----------|--------------|
|                                             |        |        | Año 1 |              | Año 2   |              | Año 3   |              | Año 4     |              | Año 5     |              |
| I. VALOR DE LA PRODUCCION TOTAL             |        |        |       |              |         |              |         |              |           |              |           |              |
| 1) Rendimiento                              | (t/ha) |        | -     |              | 0.1     |              | 3.0     |              | 8.3       |              | 10.5      |              |
| 2) Precio por Unidad de Medida              | (\$/t) |        | -     |              | 182,000 |              | 182,000 |              | 182,000   |              | 182,000   |              |
| 3) Valor de la Producción Total             | (\$/.) |        | -     |              | 20,020  |              | 546,000 |              | 1,510,600 |              | 1,911,000 |              |
| II. TOTAL GASTOS                            |        |        |       |              |         |              |         |              |           |              |           |              |
|                                             |        | Costo  |       |              |         |              |         |              |           |              |           |              |
|                                             | Unit.  | (\$/.) | Cand. | Total (\$/.) | Cand    | Total (\$/.) | Cand.   | Total (\$/.) | Cand      | Total (\$/.) | Cand      | Total (\$/.) |
| 1. Costo de Producción                      |        |        |       |              |         |              |         |              |           |              |           |              |
| 1) Labores (Jornal)                         |        |        |       |              |         |              |         |              |           |              |           |              |
| - Preparación de suelo                      | -      | -      | -     | -            | -       | -            | -       | -            | -         | -            | -         | -            |
| - Arreglo de surcos                         | 420    |        | 6     | 2,520        | -       | -            | -       | -            | -         | -            | -         | -            |
| - Trazado, estaquillado y hoyos             | 420    |        | 26    | 10,920       | -       | -            | -       | -            | -         | -            | -         | -            |
| - Mantenimiento de canales y surcos         | 420    |        | -     | -            | 12      | 5,040        | 12      | 5,040        | 12        | 5,040        | 12        | 5,040        |
| - Transplante                               | 420    |        | 12    | 5,040        | -       | -            | -       | -            | -         | -            | -         | -            |
| - Replanteo                                 | 420    |        | -     | -            | 2       | 840          | -       | -            | -         | -            | -         | -            |
| - Fertilización                             | 420    |        | 6     | 2,520        | 8       | 3,360        | 8       | 3,360        | 6         | 2,520        | 8         | 3,360        |
| - Control de maleza                         | 420    |        | 40    | 16,800       | 32      | 13,440       | 24      | 10,080       | 24        | 10,080       | 24        | 10,080       |
| - Poda                                      | 1,000  |        | 12    | 12,000       | 12      | 12,000       | 10      | 10,000       | 6         | 6,000        | 10        | 10,000       |
| - Control fitosanitari                      | 560    |        | 8     | 4,480        | 8       | 4,480        | 12      | 6,720        | 20        | 11,200       | 20        | 11,200       |
| - Tutorio                                   | 420    |        | 4     | 1,680        | -       | -            | 25      | 10,500       | -         | -            | -         | -            |
| - Riego                                     | 420    |        | 26    | 10,920       | 16      | 6,720        | 16      | 6,720        | 16        | 6,720        | 16        | 6,720        |
| - Cosecha                                   | 420    |        | -     | -            | 4       | 1,680        | 100     | 42,000       | 280       | 117,600      | 360       | 151,200      |
| 2) Materiales                               |        |        |       |              |         |              |         |              |           |              |           |              |
| - Injertos planta                           | 250    |        | 278   | 69,500       | 20      | 5,000        | -       | -            | -         | -            | -         | -            |
| - Urea 46% (kg)                             | 136    |        | 91    | 12,376       | 181     | 24,616       | -       | -            | -         | -            | -         | -            |
| - Abono comp. (kg)                          | 141    |        | 45    | 6,345        | -       | -            | 91      | 12,831       | 136       | 19,176       | 181       | 25,521       |
| - Sulfato Am. (kg)                          | 62     |        | -     | -            | -       | -            | 272     | 16,864       | 363       | 22,506       | 363       | 22,506       |
| - Lorsban (lt)                              | 5,600  |        | -     | -            | -       | -            | 3       | 16,800       | 4         | 22,400       | 4         | 22,400       |
| - Mavrik (lt)                               | 10,000 |        | -     | -            | -       | -            | 2       | 20,000       | 2         | 20,000       | 2         | 20,000       |
| - Nuvacron (lt)                             | 3,650  |        | 2.5   | 9,125        | 2       | 7,300        | -       | -            | -         | -            | -         | -            |
| - Furadan 5% (kg)                           | 950    |        | 4     | 3,800        | -       | -            | -       | -            | -         | -            | -         | -            |
| - Oxidlor (kg)                              | 1,365  |        | 1.8   | 2,457        | 2.7     | 3,686        | 2.7     | 3,686        | 3.6       | 4,914        | 3.6       | 4,914        |
| - Mancozeb (kg)                             | 1,720  |        | 1.8   | 3,096        | -       | -            | 2.7     | 4,644        | 3.6       | 6,192        | 3.6       | 6,192        |
| - Aceite agr. (kg)                          | 500    |        | 0.91  | 455          | 1.4     | 700          | 3.6     | 1,800        | 4.5       | 2,250        | 4.5       | 2,250        |
| - Agral 90 (lt)                             | 900    |        | 1     | 900          | 1       | 900          | 3       | 2,700        | 3         | 2,700        | 3         | 2,700        |
| - Pillaron (lt)                             | 4,000  |        | -     | -            | 2       | 8,000        | 3       | 12,000       | 4         | 16,000       | 4         | 16,000       |
| - Lonzin (kg)                               | 1,870  |        | -     | -            | 2.7     | 5,049        | 2.7     | 5,049        | 3.6       | 6,732        | 3.6       | 6,732        |
| - Tutor Estaca                              | 15     |        | 278   | 4,170        | -       | -            | 1,400   | 21,000       | -         | -            | -         | -            |
| - Agua Rie/ha                               | 90     |        | 13    | 1,170        | 8       | 720          | 8       | 720          | 8         | 720          | 8         | 720          |
| 3) Equipos                                  |        |        |       |              |         |              |         |              |           |              |           |              |
| - Preparación de suelo                      | 12,000 |        | 1     | 12,000       | -       | -            | -       | -            | -         | -            | -         | -            |
| - Amortiz.                                  | -      |        | -     | -            | -       | -            | -       | -            | -         | -            | -         | -            |
| - Maq.y Eq.                                 | -      |        | -     | 36,000       | -       | 36,000       | -       | 36,000       | -         | 36,000       | -         | 36,000       |
| 2. Gastos Imprevistos                       |        |        |       |              |         |              |         |              |           |              |           |              |
| 1) Imprevistos y Gastos de Administración*1 |        |        |       | 22,827       |         | 13,953       |         | 24,851       |           | 31,875       |           | 36,354       |
| Total                                       |        |        |       | 251,101      |         | 153,484      |         | 273,365      |           | 350,625      |           | 399,889      |
| III. INGRESO NETO                           |        |        |       | (251,101)    |         | (133,464)    |         | 272,635      |           | 1,159,975    |           | 1,511,111    |

\*1 10% de costo de producción.

Tabla 5.5 INGRESO NETO POR HECTAREA, SITUACION CON EL PROYECTO (1/4)

|                                              |           | Arroz - Inviern<br>(CR) |         | Arroz - Verano<br>(CR) |         | Maíz - Invierno/<br>Verano (CR) |         | Algodón<br>(CR) |         |        |
|----------------------------------------------|-----------|-------------------------|---------|------------------------|---------|---------------------------------|---------|-----------------|---------|--------|
| I. VALOR DE LA PRODUCCION TOTAL              |           |                         |         |                        |         |                                 |         |                 |         |        |
| 1) Rendimiento                               |           | (t/ha                   | 4.5     | (t/ha)                 | 4.5     | (t/h                            | 4.5     | (t/ha)          | 2.0     |        |
| 2) Precio por Unidad de Medida               |           | (\$/./t                 | 103,000 | (\$/./t)               | 103,000 | (\$/./                          | 76,000  | (\$/./t)        | 282,000 |        |
| 3) Valor de la Producción Total              |           | (\$/.                   | 463,500 | (\$/.)                 | 463,500 | (\$/                            | 342,000 | (\$/.)          | 564,000 |        |
|                                              |           | Costo                   |         |                        |         |                                 |         |                 |         |        |
|                                              |           | Unit.                   | Cand    | Total                  | Cand    | Total                           | Cand    | Total           | Cand    | Tota   |
| II. TOTAL GASTOS                             | (Unidad   | (\$/.)                  |         | (\$/.)                 |         | (\$/.)                          |         | (\$/.)          |         | (\$/.) |
| 1. Costo de Producción                       |           |                         |         |                        |         |                                 |         |                 |         |        |
| 1) Labores                                   | (Jornal)  |                         |         |                        |         |                                 |         |                 |         |        |
| - Preparación de suelo                       |           | 420                     | 10      | 4,200                  | 10      | 4,200                           | -       | -               | 10      | 4,200  |
| - Arreglo de suelo                           |           | 420                     | -       | -                      | -       | -                               | -       | -               | -       | -      |
| - Control de maleza - Quími                  |           | 560                     | 3       | 1,680                  | 3       | 1,680                           | 2       | 1,120           | 2       | 1,120  |
| - Manual                                     |           | 420                     | -       | -                      | -       | -                               | 6       | 2,520           | 12      | 5,040  |
| - Siembra                                    |           | 420                     | 10      | 4,200                  | 10      | 4,200                           | 8       | 3,360           | 10      | 4,200  |
| - Fertilización                              |           | 420                     | 6       | 2,520                  | 6       | 2,520                           | 4       | 1,680           | 10      | 4,200  |
| - Control fitosanitario                      |           | 560                     | 12      | 6,720                  | 12      | 6,720                           | 4       | 2,240           | 16      | 8,960  |
| - Riego                                      |           | 420                     | 10      | 4,200                  | 20      | 8,400                           | 6       | 2,520           | 10      | 4,200  |
| - Cosecha                                    |           | 420                     | -       | -                      | -       | -                               | -       | -               | 40      | 16,800 |
| - Cosecha corte y trillado                   |           | 420                     | 32      | 13,440                 | 32      | 13,440                          | -       | -               | -       | -      |
| - Corte y acarreo                            |           | 420                     | -       | -                      | -       | -                               | 15      | 6,300           | -       | -      |
| - Desgranada                                 |           | 420                     | -       | -                      | -       | -                               | 5       | 2,100           | -       | -      |
| 2) Materiales                                |           |                         |         |                        |         |                                 |         |                 |         |        |
| - Semilla (Arroz)                            | (kg)      | 109                     | 100     | 10,900                 | 100     | 10,900                          | -       | -               | -       | -      |
| - Semilla (Maíz)                             | (kg)      | 230                     | -       | -                      | -       | -                               | 15      | 3,450           | -       | -      |
| - Semilla (Algodón)                          | (kg)      | 430                     | -       | -                      | -       | -                               | -       | -               | 7       | 3,010  |
| - Urea                                       | (kg)      | 136                     | 181     | 24,616                 | 181     | 24,616                          | 91      | 12,376          | 181     | 24,616 |
| - Abono completo                             | (kg)      | 141                     | 91      | 12,831                 | 91      | 12,831                          | -       | -               | 91      | 12,831 |
| - Propanil 36%                               | (lt)      | 1,850                   | 3.8     | 7,030                  | 3.8     | 7,030                           | -       | -               | -       | -      |
| - Lazo                                       | (lt)      | 1,800                   | -       | -                      | -       | -                               | 2       | 3,600           | 2       | 3,600  |
| - Gessagard                                  | (kg)      | 4,700                   | -       | -                      | -       | -                               | -       | -               | 1       | 4,700  |
| - Monitor                                    | (lt)      | 3,700                   | 2       | 7,400                  | 2       | 7,400                           | -       | -               | -       | -      |
| - Lannate                                    | (kg)      | 16,200                  | 0.4     | 6,480                  | 0.4     | 6,480                           | -       | -               | -       | -      |
| - Larvin                                     | (lt)      | 7,800                   | -       | -                      | -       | -                               | 0.2     | 1,560           | 0.2     | 1,560  |
| - Afalon                                     | (lt)      | 2,500                   | -       | -                      | -       | -                               | 0.7     | 1,750           | -       | -      |
| - Lorsban                                    | (lt)      | 5,600                   | -       | -                      | -       | -                               | 2       | 11,200          | 1.5     | 8,400  |
| - Nuvacron                                   | (lt)      | 3,650                   | -       | -                      | -       | -                               | -       | -               | 1.5     | 5,475  |
| - Karate                                     | (lt)      | 8,720                   | -       | -                      | -       | -                               | -       | -               | 1       | 8,720  |
| - Agua                                       | (Riego/ha | 90                      | 5       | 450                    | 10      | 900                             | 3       | 270             | 10      | 900    |
| 3) Equipos                                   |           |                         |         |                        |         |                                 |         |                 |         |        |
| - Preparación de suelo                       | (ha       | 12,000                  | 1       | 12,000                 | 1       | 12,000                          | 1       | 12,000          | 1       | 12,000 |
| - Desgranada (Maíz)                          | (t)       | 4,400                   | -       | -                      | -       | -                               | 4.5     | 19,800          | -       | -      |
| - Transporte (Algodón)                       | (t        | 3,300                   | -       | -                      | -       | -                               | -       | -               | 2       | 6,600  |
| 2. Gastos Imprevistos                        |           |                         |         |                        |         |                                 |         |                 |         |        |
| 1) Imprevistos y Gastos de Administración *1 |           |                         | 11,867  |                        | 12,332  |                                 | 8,785   |                 | 14,113  |        |
| Total                                        |           |                         | 130,534 |                        | 135,649 |                                 | 96,631  |                 | 155,245 |        |
| III. INGRESO NETO                            |           |                         | 332,966 |                        | 327,851 |                                 | 245,369 |                 | 408,755 |        |

\*1 10% de costo de producción.

Nota: CR = Con Riego

Tabla 5.5 INGRESO NETO POR HECTAREA, SITUACION CON EL PROYECTO (2/4)

|                                             |             | Maní - Verano<br>(CR) |         | Soya - Verano<br>(CR) |         | Melón-Invierno/<br>Verano (CR) |         | Pimiento-Inviern<br>Verano (CR) |         |         |
|---------------------------------------------|-------------|-----------------------|---------|-----------------------|---------|--------------------------------|---------|---------------------------------|---------|---------|
|                                             |             |                       |         |                       |         |                                |         |                                 |         |         |
| I. VALOR DE LA PRODUCCION TOTAL             |             |                       |         |                       |         |                                |         |                                 |         |         |
| 1) Rendimiento                              |             | (t/ha                 | 1.8     | (t/ha)                | 1.8     | (t/h                           | 13.0    | (t/ha                           | 6.0     |         |
| 2) Precio por Unidad de Medida              |             | (S./t                 | 169,000 | (S./t)                | 130,000 | (S./                           | 41,000  | (S./t                           | 102,000 |         |
| 3) Valor de la Producción Total             |             | (S/.                  | 304,200 | (S/.)                 | 234,000 | (S/                            | 533,000 | (S/.                            | 612,000 |         |
|                                             |             |                       |         |                       |         |                                |         |                                 |         |         |
|                                             |             | Costo                 |         |                       |         |                                |         |                                 |         |         |
|                                             |             | Unit.                 |         |                       |         |                                |         |                                 |         |         |
|                                             |             | (Unidad               |         |                       |         |                                |         |                                 |         |         |
|                                             |             | (S/.)                 |         |                       |         |                                |         |                                 |         |         |
| II. TOTAL GASTOS                            |             |                       |         |                       |         |                                |         |                                 |         |         |
|                                             |             |                       | Cand    | Total                 | Cand.   | Total                          | Cand    | Total                           | Cand    | Tota    |
|                                             |             |                       |         | (S/.)                 |         | (S/.)                          |         | (S/.)                           |         | (S/     |
| 1. Costo de Producción                      |             |                       |         |                       |         |                                |         |                                 |         |         |
| 1) Labores                                  |             | (Jornal)              |         |                       |         |                                |         |                                 |         |         |
| - Arreglo de surco                          | 420         |                       | 3       | 1,260                 | -       | -                              | 4       | 1,680                           | 4       | 1,680   |
| - Prep. densif. y siem.                     | 420         |                       | -       | -                     | -       | -                              | -       | -                               | 6       | 2,520   |
| - Transplante                               | 420         |                       | -       | -                     | -       | -                              | -       | -                               | 30      | 12,600  |
| - Aplic. pest. semillero                    | 560         |                       | -       | -                     | -       | -                              | -       | -                               | 1       | 560     |
| - Control de maleza - Quími                 | 560         |                       | 2       | 1,120                 | 2       | 1,120                          | -       | -                               | -       | -       |
| - Manua                                     | 420         |                       | 10      | 4,200                 | 4       | 1,680                          | 15      | 6,300                           | 25      | 10,500  |
| - Aplic. pest. campo                        | 560         |                       | -       | -                     | -       | -                              | -       | -                               | 20      | 11,200  |
| - Siembra                                   | 420         |                       | 10      | 4,200                 | -       | -                              | 6       | 2,520                           | -       | -       |
| - Siembra y resiembra                       | 420         |                       | -       | -                     | 22      | 9,240                          | -       | -                               | -       | -       |
| - Fertilización                             | 420         |                       | -       | -                     | -       | -                              | 8       | 3,360                           | 8       | 3,360   |
| - Control fitosanitario                     | 560         |                       | 8       | 4,480                 | 6       | 3,360                          | 20      | 11,200                          | -       | -       |
| - Riegos                                    | 420         |                       | 16      | 6,720                 | 18      | 7,560                          | 20      | 8,400                           | -       | -       |
| - Riegos semillero                          | 420         |                       | -       | -                     | -       | -                              | -       | -                               | 2       | 840     |
| - Riegos campo                              | 420         |                       | -       | -                     | -       | -                              | -       | -                               | 30      | 12,600  |
| - Cosecha                                   | 420         |                       | 38      | 15,960                | -       | -                              | -       | -                               | -       | -       |
| - Corte, amontonada y acarr                 | 420         |                       | -       | -                     | 20      | 8,400                          | -       | -                               | -       | -       |
| - Cosecha y acarreo                         | 420         |                       | -       | -                     | -       | -                              | 25      | 10,500                          | -       | -       |
| - Cosecha, acarreo y empac.                 | 420         |                       | -       | -                     | -       | -                              | -       | -                               | 120     | 50,400  |
| - Trillada y limpieza                       | 420         |                       | -       | -                     | 2       | 840                            | -       | -                               | -       | -       |
| 2) Materiales                               |             |                       |         |                       |         |                                |         |                                 |         |         |
| - Semilla                                   | (kg) *1     |                       | 60      | 15,600                | 45      | 6,750                          | 0.45    | 11,925                          | 0.91    | 24,300  |
| - Urea                                      | (kg) 136    |                       | -       | -                     | -       | -                              | 136     | 18,496                          | 181     | 24,616  |
| - Abono com.                                | (kg) 141    |                       | -       | -                     | -       | -                              | 136     | 19,176                          | -       | -       |
| - Lazo                                      | (lt) 1,800  |                       | 2       | 3,600                 | 2       | 3,600                          | -       | -                               | -       | -       |
| - Gessagard                                 | (kg) 4,700  |                       | 1       | 4,700                 | 1       | 4,700                          | -       | -                               | -       | -       |
| - Oxiclor                                   | (kg) 1,365  |                       | -       | -                     | -       | -                              | 3.6     | 4,914                           | -       | -       |
| - Nuvacron                                  | (lt) 3,650  |                       | 1       | 3,650                 | 1       | 3,650                          | 2       | 7,300                           | -       | -       |
| - Mavrik                                    | (lt) 10,000 |                       | 0.4     | 4,000                 | -       | -                              | 0.5     | 5,000                           | 1.0     | 10,000  |
| - Incolante                                 | (kg) 3,300  |                       | -       | -                     | 0.45    | 1,485                          | -       | -                               | -       | -       |
| - Ambush                                    | (lt) 21,340 |                       | -       | -                     | 0.3     | 6,402                          | -       | -                               | -       | -       |
| - Karate                                    | (lt) 8,720  |                       | -       | -                     | -       | -                              | 1       | 8,720                           | -       | -       |
| - Temik                                     | (kg) 2,000  |                       | -       | -                     | -       | -                              | 15      | 30,000                          | -       | -       |
| - Morestan                                  | (kg) 8,000  |                       | -       | -                     | -       | -                              | 1       | 8,000                           | -       | -       |
| - Topsin                                    | (kg) 9,000  |                       | -       | -                     | -       | -                              | 3       | 27,000                          | -       | -       |
| - Pillaron                                  | (lt) 4,000  |                       | -       | -                     | -       | -                              | -       | -                               | 1       | 4,000   |
| - Dímecon                                   | (lt) 7,100  |                       | -       | -                     | -       | -                              | -       | -                               | 3       | 21,300  |
| - Cuprosan                                  | (kg) 1,540  |                       | -       | -                     | -       | -                              | -       | -                               | 2.72    | 4,189   |
| - Tricarbamix                               | (kg) 2,200  |                       | -       | -                     | -       | -                              | -       | -                               | 3.63    | 7,986   |
| - Vitavax                                   | (kg) 3,520  |                       | 0.45    | 1,584                 | -       | -                              | -       | -                               | 1.82    | 6,406   |
| - Terraclor                                 | (kg) 3,960  |                       | -       | -                     | -       | -                              | -       | -                               | 1.82    | 7,207   |
| - Monitor                                   | (lt) 3,700  |                       | -       | -                     | -       | -                              | -       | -                               | 2       | 7,400   |
| - Lorsban                                   | (lt) 5,600  |                       | 1       | 5,600                 | -       | -                              | -       | -                               | -       | -       |
| - Agua                                      | ) 90        |                       | 8       | 720                   | 8       | 720                            | 10      | 900                             | 15      | 1,350   |
| 3) Equipos                                  |             |                       |         |                       |         |                                |         |                                 |         |         |
| - Prepar. suelo                             | (ha) 12,000 |                       | 1       | 12,000                | 1       | 12,000                         | 1       | 12,000                          | 1       | 12,000  |
| - Desgranada                                | (t) 5,500   |                       | 1.8     | 9,900                 | -       | -                              | -       | -                               | -       | -       |
| - Trillada y limpieza                       | (t) 1,200   |                       | -       | -                     | 1.8     | 2,160                          | -       | -                               | -       | -       |
| 2. Gastos Imprevistos                       |             |                       |         |                       |         |                                |         |                                 |         |         |
| 1) Imprevistos y Gasto de Administración *2 |             |                       |         | 9,929                 |         | 7,367                          |         | 19,739                          |         | 23,701  |
| Total                                       |             |                       |         | 109,223               |         | 81,034                         |         | 217,130                         |         | 260,715 |
| III. INGRESO NETO                           |             |                       |         |                       |         |                                |         |                                 |         |         |
|                                             |             |                       |         | 194,977               |         | 152,966                        |         | 315,870                         |         | 351,285 |

\*1 Maní: S/.260/kg Soya: S/.150/kg

Melón: S/.26.500/kg

Pimiento: S/.26.700/kg

\*2 10% de costo de producción.

Nota: CR = Con Riego

Tabla 5.5 INGRESO NETO POR HECTAREA, SITUACION CON EL PROYECTO (3/4)

|                                             |        | Sandía-Invierno<br>Verano (CR) |         | Tomate-Invierno/<br>Verano (CR) |         | Plátano<br>(CR) |         | Zapallo-Inviern<br>Verano (CR) |         |
|---------------------------------------------|--------|--------------------------------|---------|---------------------------------|---------|-----------------|---------|--------------------------------|---------|
|                                             |        |                                |         |                                 |         |                 |         |                                |         |
| I. VALOR DE LA PRODUCCION TOTAL             |        |                                |         |                                 |         |                 |         |                                |         |
| 1) Rendimiento                              |        | (t/ha)                         | 15.0    | (t/ha)                          | 25.0    | (t/h            | 25.0    | (t/ha)                         | 20.0    |
| 2) Precio por Unidad de Medida              |        | (\$/./                         | 58,000  | (\$/./t)                        | 37,000  | (\$/./          | 31,000  | (\$/./t)                       | 41,000  |
| 3) Valor de la Producción Total             |        | (\$/.)                         | 870,000 | (\$/.)                          | 925,000 | (\$/            | 775,000 | (\$/.)                         | 820,000 |
|                                             |        | Costo                          |         |                                 |         |                 |         |                                |         |
|                                             |        | Unit.                          |         |                                 |         |                 |         |                                |         |
|                                             |        | (Unidad                        |         |                                 |         |                 |         |                                |         |
|                                             |        | (\$/.)                         |         |                                 |         |                 |         |                                |         |
| II. TOTAL GASTOS                            |        |                                |         |                                 |         |                 |         |                                |         |
|                                             |        | Costo                          |         |                                 |         |                 |         |                                |         |
|                                             |        | Unit.                          |         |                                 |         |                 |         |                                |         |
|                                             |        | (Unidad                        |         |                                 |         |                 |         |                                |         |
|                                             |        | (\$/.)                         |         |                                 |         |                 |         |                                |         |
| 1. Costo de Producción                      |        |                                |         |                                 |         |                 |         |                                |         |
|                                             |        | Costo                          |         |                                 |         |                 |         |                                |         |
|                                             |        | Unit.                          |         |                                 |         |                 |         |                                |         |
|                                             |        | (Unidad                        |         |                                 |         |                 |         |                                |         |
|                                             |        | (\$/.)                         |         |                                 |         |                 |         |                                |         |
| 1) Labores (Jornal)                         |        |                                |         |                                 |         |                 |         |                                |         |
| - Arreglo de surco                          | 420    | 2                              | 840     | 4                               | 1,680   | -               | -       | 2                              | 840     |
| - Siembra semillero y riego                 | 420    | -                              | -       | 3                               | 1,260   | -               | -       | -                              | -       |
| - Prep. vivero y siemb.                     | 420    | 4                              | 1,680   | 2                               | 840     | -               | -       | 4                              | 1,680   |
| - Transplante                               | 420    | 8                              | 3,360   | 14                              | 5,880   | -               | -       | 8                              | 3,360   |
| - Control de maleza - Quími                 | 560    | 4                              | 2,240   | -                               | -       | -               | -       | 4                              | 2,240   |
| - Manua                                     | 420    | 14                             | 5,880   | -                               | -       | 10              | 4,200   | 14                             | 5,880   |
| - Siembra                                   | 420    | -                              | -       | -                               | -       | -               | -       | -                              | -       |
| - Fertilización                             | 420    | 8                              | 3,360   | -                               | -       | 6               | 2,520   | 8                              | 3,360   |
| - Fertilización y aporque                   | 420    | -                              | -       | 12                              | 5,040   | -               | -       | -                              | -       |
| - Control fitosanitario                     | 560    | 24                             | 13,440  | 30                              | 16,800  | 6               | 3,360   | 24                             | 13,440  |
| - Deshierba                                 | 420    | -                              | -       | 30                              | 12,600  | 40              | 16,800  | -                              | -       |
| - Tutorio                                   | 420    | -                              | -       | 12                              | 5,040   | -               | -       | -                              | -       |
| - Amarre                                    | 420    | -                              | -       | 150                             | 63,000  | -               | -       | -                              | -       |
| - Riegos                                    | 420    | 26                             | 10,920  | 30                              | 12,600  | 8               | 3,360   | 26                             | 10,920  |
| - Cosecha y acarreo                         | 420    | 60                             | 25,200  | 140                             | 58,800  | 77              | 32,340  | 60                             | 25,200  |
| 2) Materiales *2                            |        |                                |         |                                 |         |                 |         |                                |         |
| - Semilla (kg)                              | 26,500 | 0.45                           | 27,900  | 0.14                            | 3,710   | -               | -       | 0.45                           | 27,900  |
| - Fundas de polietileno (Millar)            | 700    | 5                              | 3,500   | -                               | -       | -               | -       | 5                              | 3,500   |
| - Urea (kg)                                 | 136    | 91                             | 12,376  | 136                             | 18,496  | -               | -       | 91                             | 12,376  |
| - Abono com. (kg)                           | 141    | 136                            | 19,176  | 136                             | 19,176  | 181             | 25,521  | 136                            | 19,176  |
| - Sulfato de Amonio. (kg)                   | 62     | 136                            | 8,432   | -                               | -       | -               | -       | 136                            | 8,432   |
| - Dual (lt)                                 | 2,400  | 1                              | 2,400   | -                               | -       | -               | -       | 1                              | 2,400   |
| - Oxiclor (kg)                              | 1,365  | 3.6                            | 4,914   | 6.8                             | 9,282   | -               | -       | 3.6                            | 4,914   |
| - Nuvacron (lt)                             | 3,650  | 3                              | 10,950  | 2                               | 7,300   | -               | -       | 3                              | 10,950  |
| - Mavrik (lt)                               | 10,000 | 1.2                            | 12,000  | -                               | -       | -               | -       | 1.2                            | 12,000  |
| - Karate (lt)                               | 8,720  | 1                              | 8,720   | -                               | -       | -               | -       | 1                              | 8,720   |
| - Temik (kg)                                | 2,000  | 15                             | 30,000  | -                               | -       | -               | -       | 15                             | 30,000  |
| - Morestan (kg)                             | 8,000  | 1.5                            | 12,000  | -                               | -       | -               | -       | 1.5                            | 12,000  |
| - Topsin (kg)                               | 9,000  | 5                              | 45,000  | -                               | -       | -               | -       | 5                              | 45,000  |
| - Terraclor (kg)                            | 3,960  | 0.91                           | 3,604   | -                               | -       | -               | -       | 0.91                           | 3,604   |
| - Vitavac (kg)                              | 3,520  | 0.91                           | 3,203   | -                               | -       | -               | -       | 0.91                           | 3,203   |
| - Mancozeb (kg)                             | 1,720  | 5.4                            | 9,288   | 4.5                             | 7,740   | -               | -       | 5.4                            | 9,288   |
| - Furadan 5% (kg)                           | 950    | -                              | -       | 1                               | 950     | 15              | 14,250  | -                              | -       |
| - Orthocide (kg)                            | 1,320  | -                              | -       | 0.45                            | 594     | -               | -       | -                              | -       |
| - Evicet (kg)                               | 9,500  | -                              | -       | 1.5                             | 14,250  | -               | -       | -                              | -       |
| - Desis (lt)                                | 12,000 | -                              | -       | 1                               | 12,000  | -               | -       | -                              | -       |
| - Lorsban (kg)                              | 5,600  | -                              | -       | 1.8                             | 10,080  | -               | -       | -                              | -       |
| - Triciman (kg)                             | 1,890  | -                              | -       | 4.5                             | 8,505   | -               | -       | -                              | -       |
| - Fenon (lt)                                | 10,950 | -                              | -       | 1.5                             | 16,425  | -               | -       | -                              | -       |
| - Tricarbamix (kg)                          | 2,200  | -                              | -       | 4.5                             | 9,900   | -               | -       | -                              | -       |
| - Piola (kg)                                | 2,000  | -                              | -       | 4                               | 8,000   | -               | -       | -                              | -       |
| - Alambre (kg)                              | 70     | -                              | -       | 25                              | 1,750   | -               | -       | -                              | -       |
| - Estaca (Unidad)                           | 10     | -                              | -       | 1,250                           | 12,500  | -               | -       | -                              | -       |
| - Agua )                                    | 90     | 13                             | 1,170   | 15                              | 1,350   | 4               | 360     | 13                             | 1,170   |
| 3) Equipos                                  |        |                                |         |                                 |         |                 |         |                                |         |
| - Prepar. suelo (ha)                        | 12,000 | 1                              | 12,000  | 1                               | 12,000  | -               | -       | 1                              | 12,000  |
| 2. Gastos Imprevistos                       |        |                                |         |                                 |         |                 |         |                                |         |
| 1) Imprevistos y Gasto de Administración *1 |        | 29,355                         |         | 35,755                          |         | 10,271          |         | 29,355                         |         |
| Total                                       |        | 322,908                        |         | 393,303                         |         | 112,982         |         | 322,908                        |         |
| III. INGRESO NETO                           |        | 547,092                        |         | 531,697                         |         | 662,018         |         | 497,092                        |         |

\*1 10% de costo de producción. \*2 Tomate \$/, 26,500/kg, Sandía y Zapallo \$/. 62,000/kg

Nota: CR = Con Riego

Tabla 5.5 INGRESO NETO POR HECTAREA, SITUACION CON EL PROYECTO (4/4)

|                                                    |          |      | Pasto de Corte<br>(CR) |           | Citricos<br>(CR) |                | Pepino<br>(CR) |          | Cebolla Bulbo<br>(CR) |        |
|----------------------------------------------------|----------|------|------------------------|-----------|------------------|----------------|----------------|----------|-----------------------|--------|
|                                                    |          |      |                        |           |                  |                |                |          |                       |        |
| I. VALOR DE LA PRODUCCION TOTAL                    |          |      |                        |           |                  |                |                |          |                       |        |
| 1) Rendimiento                                     | (t/ha)   | 100  | (t/ha)                 | 30.0      | *                | (U/ha 50,000.0 | (t/ha)         | 15.0     |                       |        |
| 2) Precio por Unidad de Medida                     | (\$/./t  | -    | (\$/./t)               | 40,000    |                  | (\$/./U        | 7              | (\$/./t) | 88,000                |        |
| 3) Valor de la Producción Total                    | (\$/.    | -    | (\$/.)                 | 1,200,000 |                  | (\$/.          | 350,000        | (\$/.)   | 1,320,000             |        |
|                                                    | Costo    |      |                        |           |                  |                |                |          |                       |        |
|                                                    | Unit.    |      | Can                    | Total     | Can              | Total          | Cand           | Total    | Can                   | Total  |
|                                                    | (S/.)    |      |                        | (S/.)     |                  | (S/.)          |                | (S/.)    |                       | (S/.)  |
| II. TOTAL GASTOS                                   |          |      |                        |           |                  |                |                |          |                       |        |
| 1. Costo de Producción                             |          |      |                        |           |                  |                |                |          |                       |        |
| 1) Labores                                         | (Jornal) |      |                        |           |                  |                |                |          |                       |        |
| - Arreglo de surco                                 | 420      | -    | -                      | -         | -                | -              | 4              | 1,680    | -                     | -      |
| - Limpieza y mantenimiento canales, surco y corona | 420      | -    | -                      | 16        | 6,720            | -              | -              | -        | -                     | -      |
| - Prep. semillero y siembra                        | 420      | -    | -                      | -         | -                | -              | -              | -        | 10                    | 4,200  |
| - Transplante                                      | 420      | -    | -                      | -         | -                | -              | -              | -        | 100                   | 42,000 |
| - Control de maleza - Manua                        | 420      | 6    | 2,520                  | 35        | 14,700           | 8              | 3,360          | 60       | 25,200                | -      |
| - Quimi                                            | 560      | -    | -                      | -         | -                | 2              | 1,120          | 4        | 2,240                 | -      |
| - Siembra                                          | 420      | -    | -                      | -         | -                | 8              | 3,360          | -        | -                     | -      |
| - Fertilización                                    | 420      | 8    | 3,360                  | 12        | 5,040            | 6              | 2,520          | 5        | 2,100                 | -      |
| - Control fitosanitario                            | 560      | -    | -                      | 30        | 16,800           | 16             | 8,960          | 20       | 11,200                | -      |
| - Poda                                             | 700      | -    | -                      | 6         | 4,200            | -              | -              | -        | -                     | -      |
| - Riego                                            | 420      | 8    | 3,360                  | 12        | 5,040            | 18             | 7,560          | 20       | 8,400                 | -      |
| - Corte y acarreo                                  | 420      | 40   | 16,800                 | -         | -                | -              | -              | 66       | 27,720                | -      |
| - Cosecha y acarreo                                | 420      | -    | -                      | -         | -                | 20             | 8,400          | -        | -                     | -      |
| - Cosecha, acarreo y cargad                        | 420      | -    | -                      | 150       | 63,000           | -              | -              | -        | -                     | -      |
| 2) Materiales                                      |          |      |                        |           |                  |                | *3             |          | *4                    |        |
| - Semilla                                          |          | -    | -                      | -         | -                | 0.91           | 18,473         | 1        | 8,000                 | -      |
| - Urea (kg)                                        | 136      | 363  | 49,368                 | -         | -                | 91             | 12,376         | 68       | 9,248                 | -      |
| - Sulfato amonio (kg)                              | 62       | -    | -                      | 454       | 28,148           | -              | -              | -        | -                     | -      |
| - Abono completo (kg)                              | 141      | -    | -                      | 680       | 95,880           | 136            | 19,176         | 181      | 25,521                | -      |
| - Sulfomag (kg)                                    | 136      | -    | -                      | -         | -                | -              | -              | 91       | 12,376                | -      |
| - Sulfato amonio (kg)                              | 62       | -    | -                      | -         | -                | -              | -              | 91       | 5,642                 | -      |
| - Sup. triple (kg)                                 | 148      | 185  | 27,380                 | -         | -                | -              | -              | 136      | 20,128                | -      |
| - Mureato pot. (kg)                                | 86       | 140  | 12,040                 | -         | -                | -              | -              | 45       | 3,870                 | -      |
| - Goal (lt)                                        | 6,000    | -    | -                      | -         | -                | -              | -              | 1.5      | 9,000                 | -      |
| - Supracio (lt)                                    | 7,400    | -    | -                      | 4         | 29,600           | -              | -              | -        | -                     | -      |
| - Lorsban (lt)                                     | 5,600    | -    | -                      | 4         | 22,400           | -              | -              | -        | -                     | -      |
| - Pillaron (lt)                                    | 4,000    | -    | -                      | 4         | 16,000           | -              | -              | 1        | 4,000                 | -      |
| - Oxidlor (kg)                                     | 1,365    | -    | -                      | 9.1       | 12,422           | -              | -              | -        | -                     | -      |
| - Lonzin (kg)                                      | 1,870    | -    | -                      | 9.1       | 17,017           | -              | -              | -        | -                     | -      |
| - Dual (lt)                                        | 2,400    | -    | -                      | -         | -                | 2              | 4,800          | -        | -                     | -      |
| - Nuvacron (lt)                                    | 3,650    | -    | -                      | -         | -                | 2              | 7,300          | 1        | 3,650                 | -      |
| - Mavrik (lt)                                      | 10,000   | -    | -                      | -         | -                | 0.5            | 5,000          | -        | -                     | -      |
| - Topsin (kg)                                      | 9,000    | -    | -                      | -         | -                | 1              | 9,000          | -        | -                     | -      |
| - Daconil (kg)                                     | 2,100    | -    | -                      | -         | -                | 2              | 4,200          | -        | -                     | -      |
| - Monitor (lt)                                     | 3,700    | -    | -                      | -         | -                | -              | -              | 1.5      | 5,550                 | -      |
| - Malathion 57 (lt)                                | 1,500    | -    | -                      | -         | -                | -              | -              | 1        | 1,500                 | -      |
| - Mitac 20 (lt)                                    | 3,800    | -    | -                      | -         | -                | -              | -              | 2        | 7,600                 | -      |
| - Antracol (kg)                                    | 1,800    | -    | -                      | -         | -                | -              | -              | 2        | 3,600                 | -      |
| - Daconil (kg)                                     | 2,100    | -    | -                      | -         | -                | -              | -              | 2        | 4,200                 | -      |
| - Ridomil (kg)                                     | 6,000    | -    | -                      | -         | -                | -              | -              | 2.5      | 15,000                | -      |
| - Aceite agr. (lt)                                 | 500      | -    | -                      | 20        | 10,000           | -              | -              | -        | -                     | -      |
| - Agral 90 (lt)                                    | 900      | -    | -                      | 3         | 2,700            | -              | -              | -        | -                     | -      |
| - Agua (Riego/ha)                                  | 90       | 8    | 720                    | 6         | 540              | 9              | 810            | 10       | 900                   | -      |
| 3) Equipos (Prepar. suelo)(ha)                     | 12,000   | 0.25 | 3,000                  | -         | -                | 1              | 12,000         | 1        | 12,000                | -      |
| 2. Gastos Imprevistos                              |          |      |                        |           |                  |                |                |          |                       |        |
| 1) Imprevistos y Gastos de Administración *1       |          |      | 11,855                 |           | 35,021           |                | 13,010         |          | 27,485                |        |
| Total                                              |          |      | 130,403                |           | 385,228          |                | 143,105        |          | 302,330               |        |
| III. INGRESO NETO                                  |          |      |                        |           | 814,772          |                | 206,895        |          | 1,017,670             |        |

\*1 10% de costo de produ \*3 Pepino: S/.20.300/kg \*4 Cebolla: S/.8.000/kg

\*2 Rendimiento promedio de limón, mandarina, naranja y toronja.

Tabla 5.6 PRACTICAS DE CRIANZA DE GANADO E INGRESO NETO

PRACTICAS PARA EL CULTIVO DE PASTO Y PRODUCCION DE LECHE

1) Crianza de Ganado de leche

Metodo de Crianza: Pastoreo

La crianza de ganado vacuno es basicamente realizada por pastoreo; el suministro de pasto es a veces manual. La obtención de leche se hace dos veces al día.

|                                                         |               |                     |          |
|---------------------------------------------------------|---------------|---------------------|----------|
| Peso en pié:                                            | 500 kg/cabeza | Rendimiento ordeño  | 4,000 lt |
| Intervalo de paridas:                                   | 18 meses      | Cantidad lactancia  | 1,000 lt |
| Período de lactación:                                   | 10 meses      | Porcentaje de grasa | 3.5 %    |
| Mano de obra para crianza y ordeño: 0,1 persona/cabeza. |               |                     |          |

2) Cultivo de pasto

Variedades: Napier grass, guinea grass, ect.

Rendimiento: 100 t/ha

En general se puede conseguir bajo riego un rendimiento de 120 ton/ha.

Pero la mayoría de los pastizales están sobre suelos de la clase VI y VII que no son adecuados para cultivos de ciclo corto y frutales. El rendimiento previsto se ha estimado en un 80% del normal.

Fertilizante: N 170kg, P205 85kg, K20 85kg

Intervalo de reemplaza de pastos: 3-4 años.

CRIANZA, CABEZAS/HA.

1) Requerimientos de nutrientes por cabeza.

|                             | Period<br>(días) | Requerim.<br>unitario<br>de NTD*1<br>(kg/día) | Requerim.<br>total*2<br>de NTD<br>(kg) | Impre-<br>vistas<br>(%) | Requerim.<br>anual<br>de NTD<br>(kg) |
|-----------------------------|------------------|-----------------------------------------------|----------------------------------------|-------------------------|--------------------------------------|
| Nutriente Basico            | 540              | 4.0                                           | 2,160                                  | +10                     | 1,606                                |
| Nutriente por lactancia     | 300              | 4.1                                           | 1,230                                  | +10                     | 915                                  |
| Nutriente para la gestación | 90               | 2.2                                           | 198                                    | +10                     | 147                                  |
| Total                       | 540              |                                               | 3,588                                  |                         | 2,668                                |

\*1 NTD: Total digerible

\*2 Requerimiento para el período maternal

2) Producción anual de NTD por ha.

|                                                           |               |
|-----------------------------------------------------------|---------------|
| - Producción anual de pasto                               | 100,000 kg/ha |
| - Contenido NTD (Cifra promedio de pasto Napier y Guinea) | 8.5 %         |
| - Eficiencia                                              | 80 %          |
| - Producción de NTD por ha.                               | 6,800 kg/año  |

3) Cabeza de ganado por ha.

2.5

PRODUCCION ANUAL DE LECHE

|                           |                                        |              |
|---------------------------|----------------------------------------|--------------|
| - Rendimiento bruto       | 4.000 x 12 meses/18 meses x 2,5 cabeza | 6,670 lt/año |
| - Cantidad para lactancia | 1.000 x 12 meses/18 meses x 2,5 cabeza | 1,670 lt/año |
| - Rendimiento neto        |                                        | 5,000 lt/año |

|                            |                          |                  |
|----------------------------|--------------------------|------------------|
| INGRESO BRUTO POR HECTAREA | 5,000 lt/año x S/.100/lt | S/. 500,000 /año |
|----------------------------|--------------------------|------------------|

EGRESOS BRUTOS

|                                                         |             |
|---------------------------------------------------------|-------------|
| - Costo de producción de pasto                          | S/. 130,000 |
| - Costo de crianza                                      |             |
| Mano de obra perm.: 2,5 cabeza x 0,1 pers. x S/.360.000 | S/. 90,000  |
| Miscelaneos                                             | S/. 10,000  |
| Total                                                   | S/. 230,000 |

|               |             |
|---------------|-------------|
| INGRESO BRUTO | S/. 270,000 |
|---------------|-------------|



Tabla 5.7 BENEFICIOS DEL RIEGO (1/11)

|                                                                                                                               | Chebe        |                             |                      | Pedernales   |                             |                      | Cuaque       |                             |                      |
|-------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------|----------------------|--------------|-----------------------------|----------------------|--------------|-----------------------------|----------------------|
|                                                                                                                               | Area<br>(ha) | Ing. Neto*1<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*1<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*1<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| <b>USO DE LA TIERRA - SIN PROYECTO</b>                                                                                        |              |                             |                      |              |                             |                      |              |                             |                      |
| Cultivo anual                                                                                                                 | 0            |                             |                      | 0            |                             |                      | 0            |                             |                      |
| Cultivo permanente                                                                                                            | 150          |                             |                      | 0            |                             |                      | 0            |                             |                      |
| Pasto                                                                                                                         | 600          |                             |                      | 1,450        |                             |                      | 650          |                             |                      |
| Montes                                                                                                                        | 750          |                             |                      | 0            |                             |                      | 0            |                             |                      |
| <b>SIN PROYECTO</b>                                                                                                           |              |                             |                      |              |                             |                      |              |                             |                      |
| Maíz                                                                                                                          | 0            | 41                          | 0                    | 0            | 41                          | 0                    | 0            | 41                          | 0                    |
| Arroz                                                                                                                         | 0            | 88                          | 0                    | 0            | 88                          | 0                    | 0            | 88                          | 0                    |
| Melon                                                                                                                         | 0            | 80                          | 0                    | 0            | 80                          | 0                    | 0            | 80                          | 0                    |
| Sandía                                                                                                                        | 0            | 520                         | 0                    | 0            | 520                         | 0                    | 0            | 520                         | 0                    |
| Pepino dulce                                                                                                                  | 0            | 77                          | 0                    | 0            | 77                          | 0                    | 0            | 77                          | 0                    |
| Pimiento                                                                                                                      | 0            | 322                         | 0                    | 0            | 322                         | 0                    | 0            | 322                         | 0                    |
| Tomate                                                                                                                        | 0            | 46                          | 0                    | 0            | 46                          | 0                    | 0            | 46                          | 0                    |
| Algodón                                                                                                                       | 0            | 253                         | 0                    | 0            | 253                         | 0                    | 0            | 253                         | 0                    |
| Maní                                                                                                                          | 0            | 121                         | 0                    | 0            | 121                         | 0                    | 0            | 121                         | 0                    |
| Fréjol                                                                                                                        | 0            | 220                         | 0                    | 0            | 220                         | 0                    | 0            | 220                         | 0                    |
| Haba                                                                                                                          | 0            | 540                         | 0                    | 0            | 540                         | 0                    | 0            | 540                         | 0                    |
| Yuca                                                                                                                          | 0            | 52                          | 0                    | 0            | 52                          | 0                    | 0            | 52                          | 0                    |
| Cacao                                                                                                                         | 50           | 161                         | 8                    | 0            | 161                         | 0                    | 0            | 161                         | 0                    |
| Cítricos                                                                                                                      | 20           | 364                         | 7                    | 0            | 364                         | 0                    | 0            | 364                         | 0                    |
| Plátano                                                                                                                       | 20           | 282                         | 6                    | 0            | 282                         | 0                    | 0            | 282                         | 0                    |
| Frutales *2                                                                                                                   | 0            | 209                         | 0                    | 0            | 209                         | 0                    | 0            | 209                         | 0                    |
| Higuerilla                                                                                                                    | 0            | 2                           | 0                    | 0            | 2                           | 0                    | 0            | 2                           | 0                    |
| Coco                                                                                                                          | 60           | 290                         | 17                   | 0            | 290                         | 0                    | 0            | 290                         | 0                    |
| Pastos*3                                                                                                                      | 600          | 33                          | 20                   | 1,450        | 33                          | 48                   | 650          | 33                          | 21                   |
| Sub-Total                                                                                                                     | 750          |                             | 58                   | 1,450        |                             | 48                   | 650          |                             | 21                   |
| <b>CON PROYECTO</b>                                                                                                           |              |                             |                      |              |                             |                      |              |                             |                      |
| Cultivos                                                                                                                      | 1,500        |                             |                      | 750          |                             |                      | 650          |                             |                      |
| Pastos                                                                                                                        | 0            |                             |                      | 700          |                             |                      | 0            |                             |                      |
| Maíz                                                                                                                          | 600          | 245                         | 147                  | 300          | 245                         | 74                   | 260          | 245                         | 64                   |
| Arroz                                                                                                                         | 460          | 330                         | 152                  | 230          | 330                         | 76                   | 200          | 330                         | 66                   |
| Melon                                                                                                                         | 40           | 316                         | 13                   | 20           | 316                         | 6                    | 20           | 316                         | 6                    |
| Pimiento                                                                                                                      | 100          | 351                         | 35                   | 50           | 351                         | 18                   | 40           | 351                         | 14                   |
| Sandía                                                                                                                        | 280          | 547                         | 153                  | 140          | 547                         | 77                   | 120          | 547                         | 66                   |
| Tomate                                                                                                                        | 10           | 532                         | 5                    | 0            | 532                         | 0                    | 0            | 532                         | 0                    |
| Sapallo                                                                                                                       | 90           | 497                         | 45                   | 40           | 497                         | 20                   | 40           | 497                         | 20                   |
| Algodón                                                                                                                       | 0            | 409                         | 0                    | 0            | 409                         | 0                    | 0            | 409                         | 0                    |
| Maní                                                                                                                          | 0            | 195                         | 0                    | 0            | 195                         | 0                    | 0            | 195                         | 0                    |
| Soya                                                                                                                          | 0            | 153                         | 0                    | 0            | 153                         | 0                    | 0            | 153                         | 0                    |
| Cítricos*4                                                                                                                    | 230          | 815                         | 187                  | 110          | 815                         | 90                   | 100          | 815                         | 82                   |
| Plátano                                                                                                                       | 440          | 662                         | 291                  | 220          | 662                         | 146                  | 190          | 662                         | 126                  |
| Otros Cultivos                                                                                                                | 90           | 612                         | 55                   | 40           | 612                         | 24                   | 40           | 612                         | 24                   |
| Pastos                                                                                                                        | 0            | 270                         | 0                    | 700          | 270                         | 189                  | 0            | 270                         | 0                    |
| Sub-Total                                                                                                                     | 2,340        |                             | 1,083                | 1,850        |                             | 720                  | 1,010        |                             | 468                  |
| Benefit                                                                                                                       |              |                             | 1,025                |              |                             | 672                  |              |                             | 447                  |
| (US\$ = S/.530)                                                                                                               | (US\$/ha)    |                             | (1,289)              |              |                             | (874)                |              |                             | (1,298)              |
| *1 Ingreso neto por una cosecha.                                                                                              |              |                             |                      |              |                             |                      |              |                             |                      |
| *2 Papaya *4 Limón, mandarina, naranja y toronja.                                                                             |              |                             |                      |              |                             |                      |              |                             |                      |
| *3 El ingreso neto para el pasto, en condición sin proyecto, se estimó como sigue, basado en rendimientos promedios del país. |              |                             |                      |              |                             |                      |              |                             |                      |
|                                                                                                                               |              |                             |                      | 65 kg        | S/.518/kg                   | 33,670               |              |                             |                      |
|                                                                                                                               |              |                             |                      | 140 lt       | S/.100/lt                   | 14,000               |              |                             |                      |
|                                                                                                                               |              |                             |                      |              | Ingreso bruto               | 47,670               |              |                             |                      |
|                                                                                                                               |              |                             |                      |              | - Costo de producción (30%) | 14,300               |              |                             |                      |
|                                                                                                                               |              |                             |                      |              | Ingreso neto                | 33,370               |              |                             |                      |

Tabla 5.7 BENEFICIOS DEL RIEGO (2/11)

|                                 | Don Juan     |                            |                      | Jama         |                            |                      | Muchacho     |                           |                      |
|---------------------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|--------------|---------------------------|----------------------|
|                                 | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO |              |                            |                      |              |                            |                      |              |                           |                      |
| Cultivo anual                   | 380          |                            |                      | 1,150        |                            |                      | 0            |                           |                      |
| Cultivo permanente              | 0            |                            |                      | 0            |                            |                      | 0            |                           |                      |
| Pasto                           | 570          |                            |                      | 0            |                            |                      | 750          |                           |                      |
| Montes                          | 0            |                            |                      | 0            |                            |                      | 0            |                           |                      |
| SIN PROYECTO                    |              |                            |                      |              |                            |                      |              |                           |                      |
| Maíz                            | 290          | 41                         | 12                   | 980          | 41                         | 40                   | 0            | 41                        | 0                    |
| Arroz                           | 0            | 88                         | 0                    | 10           | 88                         | 1                    | 0            | 88                        | 0                    |
| Melon                           | 0            | 80                         | 0                    | 0            | 80                         | 0                    | 0            | 80                        | 0                    |
| Sandía                          | 10           | 520                        | 5                    | 0            | 520                        | 0                    | 0            | 520                       | 0                    |
| Pepino dulce                    | 0            | 77                         | 0                    | 0            | 77                         | 0                    | 0            | 77                        | 0                    |
| Pimiento                        | 0            | 322                        | 0                    | 0            | 322                        | 0                    | 0            | 322                       | 0                    |
| Tomate                          | 0            | 46                         | 0                    | 0            | 46                         | 0                    | 0            | 46                        | 0                    |
| Algodón                         | 0            | 253                        | 0                    | 10           | 253                        | 3                    | 0            | 253                       | 0                    |
| Maní                            | 20           | 121                        | 2                    | 60           | 121                        | 7                    | 0            | 121                       | 0                    |
| Fréjol                          | 10           | 220                        | 2                    | 10           | 220                        | 2                    | 0            | 220                       | 0                    |
| Haba                            | 0            | 540                        | 0                    | 0            | 540                        | 0                    | 0            | 540                       | 0                    |
| Yuca                            | 40           | 52                         | 2                    | 80           | 52                         | 4                    | 0            | 52                        | 0                    |
| Cacao                           | 0            | 161                        | 0                    | 0            | 161                        | 0                    | 0            | 161                       | 0                    |
| Cítricos                        | 0            | 364                        | 0                    | 0            | 364                        | 0                    | 0            | 364                       | 0                    |
| Plátano                         | 0            | 282                        | 0                    | 0            | 282                        | 0                    | 0            | 282                       | 0                    |
| Frutales                        | 0            | 209                        | 0                    | 0            | 209                        | 0                    | 0            | 209                       | 0                    |
| Higuerilla                      | 0            | 2                          | 0                    | 0            | 2                          | 0                    | 0            | 2                         | 0                    |
| Coco                            | 0            | 290                        | 0                    | 0            | 290                        | 0                    | 0            | 290                       | 0                    |
| Pastos                          | 570          | 33                         | 19                   | 0            | 33                         | 0                    | 750          | 33                        | 25                   |
| Sub-Total                       | 940          |                            | 42                   | 1,150        |                            | 57                   | 750          |                           | 25                   |
| CON PROYECTO                    |              |                            |                      |              |                            |                      |              |                           |                      |
| Cultivos                        | 950          |                            |                      | 1,150        |                            |                      | 750          |                           |                      |
| Pastos                          | 0            |                            |                      | 0            |                            |                      |              |                           |                      |
| Maíz                            | 380          | 245                        | 93                   | 460          | 245                        | 113                  | 300          | 245                       | 74                   |
| Arroz                           | 290          | 330                        | 96                   | 350          | 330                        | 116                  | 230          | 330                       | 76                   |
| Melon                           | 30           | 316                        | 9                    | 30           | 316                        | 9                    | 20           | 316                       | 6                    |
| Pimiento                        | 60           | 351                        | 21                   | 80           | 351                        | 28                   | 50           | 351                       | 18                   |
| Sandía                          | 180          | 547                        | 98                   | 220          | 547                        | 120                  | 140          | 547                       | 77                   |
| Tomate                          | 10           | 532                        | 5                    | 10           | 532                        | 5                    | 0            | 532                       | 0                    |
| Sapallo                         | 50           | 497                        | 25                   | 70           | 497                        | 35                   | 40           | 497                       | 20                   |
| Algodón                         | 0            | 409                        | 0                    | 0            | 409                        | 0                    | 0            | 409                       | 0                    |
| Maní                            | 0            | 195                        | 0                    | 0            | 195                        | 0                    | 0            | 195                       | 0                    |
| Soya                            | 0            | 153                        | 0                    | 0            | 153                        | 0                    | 0            | 153                       | 0                    |
| Cítricos                        | 150          | 815                        | 122                  | 180          | 815                        | 147                  | 110          | 815                       | 90                   |
| Plátano                         | 280          | 662                        | 185                  | 340          | 662                        | 225                  | 220          | 662                       | 146                  |
| Otros Cultivos                  | 50           | 612                        | 31                   | 70           | 612                        | 43                   | 40           | 612                       | 24                   |
| Pastos                          | 0            | 270                        | 0                    | 0            | 270                        | 0                    | 0            | 270                       | 0                    |
| Sub-Total                       | 1,480        |                            | 685                  | 1,810        |                            | 841                  | 1,150        |                           | 531                  |
| Beneficios                      |              |                            |                      |              |                            |                      |              |                           |                      |
|                                 |              |                            | 643                  |              |                            |                      | 784          |                           |                      |
| (US\$ = S/.530) (US\$/ha)       |              |                            | (1,277)              |              |                            |                      | (1,286)      |                           |                      |
| * Ingreso neto por un cultivo   |              |                            |                      |              |                            |                      | (1,273)      |                           |                      |

Tabla 5.7 BENEFICIOS DEL RIEGO (3/11)

|                                 | Briceno      |                            |                      | San Ramon    |                            |                      | San Andres   |                            |                      |
|---------------------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
|                                 | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO |              |                            |                      |              |                            |                      |              |                            |                      |
| Cultivo anual                   | 600          |                            |                      | 100          |                            |                      | 100          |                            |                      |
| Cultivo permanente              | 600          |                            |                      | 780          |                            |                      | 1,450        |                            |                      |
| Pasto                           | 1,800        |                            |                      | 620          |                            |                      | 700          |                            |                      |
| Montes                          | 0            |                            |                      | 0            |                            |                      | 0            |                            |                      |
| SIN PRYECTO                     |              |                            |                      |              |                            |                      |              |                            |                      |
| Maíz                            | 440          | 41                         | 18                   | 70           | 41                         | 3                    | 70           | 41                         | 3                    |
| Arroz                           | 30           | 88                         | 3                    | 0            | 88                         | 0                    | 0            | 88                         | 0                    |
| Melon                           | 0            | 80                         | 0                    | 0            | 80                         | 0                    | 0            | 80                         | 0                    |
| Sandia                          | 0            | 520                        | 0                    | 10           | 520                        | 5                    | 10           | 520                        | 5                    |
| Pepino dulce                    | 0            | 77                         | 0                    | 0            | 77                         | 0                    | 0            | 77                         | 0                    |
| Pimiento                        | 0            | 322                        | 0                    | 0            | 322                        | 0                    | 0            | 322                        | 0                    |
| Tomate                          | 0            | 46                         | 0                    | 0            | 46                         | 0                    | 0            | 46                         | 0                    |
| Algodón                         | 70           | 253                        | 18                   | 0            | 253                        | 0                    | 0            | 253                        | 0                    |
| Maní                            | 30           | 121                        | 4                    | 0            | 121                        | 0                    | 0            | 121                        | 0                    |
| Fréjol                          | 0            | 220                        | 0                    | 0            | 220                        | 0                    | 0            | 220                        | 0                    |
| Haba                            | 0            | 540                        | 0                    | 0            | 540                        | 0                    | 0            | 540                        | 0                    |
| Yuca                            | 30           | 52                         | 2                    | 10           | 52                         | 1                    | 10           | 52                         | 1                    |
| Cacao                           | 570          | 161                        | 92                   | 620          | 161                        | 100                  | 1,150        | 161                        | 185                  |
| Cítricos                        | 0            | 364                        | 0                    | 50           | 364                        | 18                   | 100          | 364                        | 36                   |
| Plátano                         | 10           | 282                        | 3                    | 50           | 282                        | 14                   | 100          | 282                        | 28                   |
| Frutales                        | 0            | 209                        | 0                    | 10           | 209                        | 2                    | 30           | 209                        | 6                    |
| Higuerilla                      | 10           | 2                          | 0                    | 30           | 2                          | 0                    | 60           | 2                          | 0                    |
| Coco                            | 10           | 290                        | 3                    | 10           | 290                        | 3                    | 20           | 290                        | 6                    |
| Pastos                          | 1,800        | 33                         | 59                   | 620          | 33                         | 20                   | 700          | 33                         | 23                   |
| Sub-Total                       | 3,000        |                            | 202                  | 1,480        |                            | 166                  | 2,250        |                            | 293                  |
| CON PROYECTO                    |              |                            |                      |              |                            |                      |              |                            |                      |
| Cultivos                        | 2,900        |                            |                      | 1,500        |                            |                      | 2,150        |                            |                      |
| Pastos                          | 100          |                            |                      | 0            |                            |                      | 100          |                            |                      |
| Maíz                            | 1,170        | 245                        | 287                  | 150          | 245                        | 37                   | 210          | 245                        | 51                   |
| Arroz                           | 890          | 330                        | 294                  | 1,190        | 330                        | 393                  | 1,710        | 330                        | 564                  |
| Melon                           | 80           | 316                        | 25                   | 20           | 316                        | 6                    | 30           | 316                        | 9                    |
| Pimiento                        | 190          | 351                        | 67                   | 40           | 351                        | 14                   | 60           | 351                        | 21                   |
| Sandia                          | 540          | 547                        | 295                  | 120          | 547                        | 66                   | 170          | 547                        | 93                   |
| Tomate                          | 20           | 532                        | 11                   | 0            | 532                        | 0                    | 10           | 532                        | 5                    |
| Sapallo                         | 170          | 497                        | 84                   | 40           | 497                        | 20                   | 50           | 497                        | 25                   |
| Algodón                         | 0            | 409                        | 0                    | 230          | 409                        | 94                   | 330          | 409                        | 135                  |
| Maní                            | 0            | 195                        | 0                    | 120          | 195                        | 23                   | 170          | 195                        | 33                   |
| Soya                            | 0            | 153                        | 0                    | 10           | 153                        | 2                    | 20           | 153                        | 3                    |
| Cítricos                        | 440          | 815                        | 359                  | 220          | 815                        | 179                  | 320          | 815                        | 261                  |
| Plátano                         | 850          | 662                        | 563                  | 300          | 662                        | 199                  | 430          | 662                        | 285                  |
| Otros Cultivos                  | 170          | 612                        | 104                  | 40           | 612                        | 24                   | 50           | 612                        | 31                   |
| Pastos                          | 100          | 270                        | 27                   | 0            | 270                        | 0                    | 100          | 270                        | 27                   |
| Sub-Total                       | 4,620        |                            | 2,116                | 2,480        |                            | 1,057                | 3,660        |                            | 1,543                |
| Beneficios                      |              |                            | 1,914                |              |                            | 891                  |              |                            | 1,250                |
| (US\$ = S/.530) (US\$/ha)       |              |                            | (1,204)              |              |                            | (1,121)              |              |                            | (1,048)              |
| * Ingreso neto por un cultivo.  |              |                            |                      |              |                            |                      |              |                            |                      |

Tabla 5.7 BENEFICIOS DEL RIEGO (4/11)

|                                 | Carrizal-Chone |                            |                      | Amarillos    |                            |                      | Guarango     |                            |                      |
|---------------------------------|----------------|----------------------------|----------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
|                                 | Area<br>(ha)   | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO |                |                            |                      |              |                            |                      |              |                            |                      |
| Cultivo anual                   | 1,500          |                            |                      | 250          |                            |                      | 1,500        |                            |                      |
| Cultivo perenne                 | 1,800          |                            |                      | 250          |                            |                      | 0            |                            |                      |
| Pasto                           | 1,800          |                            |                      | 500          |                            |                      | 0            |                            |                      |
| Montes                          | 9,900          |                            |                      | 0            |                            |                      | 0            |                            |                      |
| SIN PROYECTO                    |                |                            |                      |              |                            |                      |              |                            |                      |
| Maíz                            | 1,010          | 41                         | 41                   | 170          | 41                         | 7                    | 1,010        | 41                         | 41                   |
| Arroz                           | 60             | 88                         | 5                    | 10           | 88                         | 1                    | 60           | 88                         | 5                    |
| Melon                           | 20             | 80                         | 2                    | 0            | 80                         | 0                    | 20           | 80                         | 2                    |
| Sandía                          | 80             | 520                        | 42                   | 10           | 520                        | 5                    | 80           | 520                        | 42                   |
| Pepino dulce                    | 10             | 77                         | 1                    | 0            | 77                         | 0                    | 10           | 77                         | 1                    |
| Pimiento                        | 10             | 322                        | 3                    | 0            | 322                        | 0                    | 10           | 322                        | 3                    |
| Tomate                          | 20             | 46                         | 1                    | 0            | 46                         | 0                    | 20           | 46                         | 1                    |
| Algodón                         | 30             | 253                        | 8                    | 10           | 253                        | 3                    | 30           | 253                        | 8                    |
| Maní                            | 20             | 121                        | 2                    | 0            | 121                        | 0                    | 20           | 121                        | 2                    |
| Fréjol                          | 20             | 220                        | 4                    | 0            | 220                        | 0                    | 20           | 220                        | 4                    |
| Haba                            | 10             | 540                        | 5                    | 0            | 540                        | 0                    | 10           | 540                        | 5                    |
| Yuca                            | 200            | 52                         | 10                   | 30           | 52                         | 2                    | 200          | 52                         | 10                   |
| Cacao                           | 1,430          | 161                        | 230                  | 200          | 161                        | 32                   | 0            | 161                        | 0                    |
| Cítricos                        | 120            | 364                        | 44                   | 20           | 364                        | 7                    | 0            | 364                        | 0                    |
| Plátano                         | 120            | 282                        | 34                   | 20           | 282                        | 6                    | 0            | 282                        | 0                    |
| Frutales                        | 30             | 209                        | 6                    | 0            | 209                        | 0                    | 0            | 209                        | 0                    |
| Higuerilla                      | 70             | 2                          | 0                    | 10           | 2                          | 0                    | 0            | 2                          | 0                    |
| Coco                            | 20             | 290                        | 6                    | 0            | 290                        | 0                    | 0            | 290                        | 0                    |
| Pastos                          | 1,800          | 33                         | 59                   | 500          | 33                         | 17                   | 0            | 33                         | 0                    |
| Sub-Total                       | 5,080          |                            | 503                  | 980          |                            | 80                   | 1,490        |                            | 124                  |
| CON PROYECTO                    |                |                            |                      |              |                            |                      |              |                            |                      |
| Cultivos                        | 15,000         |                            |                      | 1,000        |                            |                      | 1,500        |                            |                      |
| Pastos                          | 0              |                            |                      | 0            |                            |                      | 0            |                            |                      |
| Maíz                            | 1,480          | 245                        | 363                  | 100          | 245                        | 25                   | 150          | 245                        | 37                   |
| Arroz                           | 11,940         | 330                        | 3,940                | 800          | 330                        | 264                  | 1,190        | 330                        | 393                  |
| Melon                           | 180            | 316                        | 57                   | 10           | 316                        | 3                    | 20           | 316                        | 6                    |
| Pimiento                        | 420            | 351                        | 147                  | 30           | 351                        | 11                   | 40           | 351                        | 14                   |
| Sandía                          | 1,170          | 547                        | 640                  | 80           | 547                        | 44                   | 120          | 547                        | 66                   |
| Tomate                          | 40             | 532                        | 21                   | 0            | 532                        | 0                    | 0            | 532                        | 0                    |
| Sapallo                         | 360            | 497                        | 179                  | 20           | 497                        | 10                   | 40           | 497                        | 20                   |
| Algodón                         | 2,320          | 409                        | 949                  | 150          | 409                        | 61                   | 230          | 409                        | 94                   |
| Maní                            | 1,160          | 195                        | 226                  | 80           | 195                        | 16                   | 120          | 195                        | 23                   |
| Soya                            | 120            | 153                        | 18                   | 10           | 153                        | 2                    | 10           | 153                        | 2                    |
| Cítricos                        | 2,220          | 815                        | 1,809                | 150          | 815                        | 122                  | 220          | 815                        | 179                  |
| Plátano                         | 3,010          | 662                        | 1,993                | 200          | 662                        | 132                  | 300          | 662                        | 199                  |
| Otros Cultivos                  | 360            | 612                        | 220                  | 20           | 612                        | 12                   | 40           | 612                        | 24                   |
| Pastos                          | 0              | 270                        | 0                    | 0            | 270                        | 0                    | 0            | 270                        | 0                    |
| Sub-Total                       | 24,780         |                            | 10,562               | 1,650        |                            | 702                  | 2,480        |                            | 1,057                |
|                                 |                |                            |                      |              |                            |                      |              |                            |                      |
| Beneficios                      |                |                            | 10,059               |              |                            | 622                  |              |                            | 933                  |
|                                 |                |                            |                      |              |                            |                      |              |                            |                      |
| (US\$ = S/.530)                 | (US\$/ha)      |                            | (1,265)              |              |                            | (1,174)              |              |                            | (1,174)              |

\* Ingreso neto por un cultivo.

Tabla 5.7 BENEFICIOS DEL RIEGO (5/11)

|                                 | Rio Chico                             |                      |         | Pechiche - Pasaje*2                   |                      |       |
|---------------------------------|---------------------------------------|----------------------|---------|---------------------------------------|----------------------|-------|
|                                 | Area Ing. Neto*1<br>(ha) (S/.Mil./ha) | Total<br>(S/.Millon) |         | Area Ing. Neto*1<br>(ha) (S/.Mil./ha) | Total<br>(S/.Millon) |       |
| USO DE LA TIERRA - SIN PROYECTO |                                       |                      |         |                                       |                      |       |
| Cultivo anual                   | 430                                   |                      |         | 170                                   |                      |       |
| Cultivo perenne                 | 430                                   |                      |         | 470                                   |                      |       |
| Pasto                           | 840                                   |                      |         | 210                                   |                      |       |
| Montes                          | 0                                     |                      |         | 0                                     |                      |       |
| SIN PROYECTO                    |                                       |                      |         |                                       |                      |       |
| Mafz                            | 210                                   | 41                   | 9       | -                                     | -                    | -     |
| Arroz                           | 50                                    | 88                   | 4       | -                                     | -                    | -     |
| Melon                           | 0                                     | 80                   | 0       | -                                     | -                    | -     |
| Sandia                          | 20                                    | 520                  | 10      | -                                     | -                    | -     |
| Pepino dulce                    | 0                                     | 77                   | 0       | -                                     | -                    | -     |
| Pimiento                        | 0                                     | 322                  | 0       | -                                     | -                    | -     |
| Tomate                          | 10                                    | 46                   | 1       | 10                                    | 532 *3               | 5     |
| Algodón                         | 40                                    | 253                  | 10      | -                                     | -                    | -     |
| Maní                            | 40                                    | 121                  | 5       | -                                     | -                    | -     |
| Fréjol                          | 0                                     | 220                  | 0       | -                                     | -                    | -     |
| Haba                            | 10                                    | 540                  | 5       | -                                     | -                    | -     |
| Yuca                            | 40                                    | 52                   | 2       | -                                     | -                    | -     |
| Cacao                           | 150                                   | 161                  | 24      | 60                                    | 319 *3               | 19    |
| Cítricos                        | 100                                   | 364                  | 36      | 110                                   | 815 *3               | 90    |
| Plátano                         | 70                                    | 282                  | 20      | 40                                    | 662 *3               | 26    |
| Frutales                        | 40                                    | 209                  | 8       | -                                     | -                    | -     |
| Higuerilla                      | 60                                    | 2                    | 0       | -                                     | -                    | -     |
| Coco                            | 10                                    | 290                  | 3       | 400                                   | 460 *3               | 184   |
| Pastos                          | 840                                   | 33                   | 28      | 270                                   | 270                  | 73    |
| Sub-Total                       | 1,690                                 |                      | 165     | 890                                   |                      | 397   |
| CON PROYECTO                    |                                       |                      |         |                                       |                      |       |
| Cultivos                        | 1,700                                 |                      |         | 850                                   |                      |       |
| Pastos                          | 0                                     |                      |         | 0                                     |                      |       |
| Mafz                            | 170                                   | 245                  | 42      | 80                                    | 245                  | 20    |
| Arroz                           | 1,350                                 | 330                  | 446     | 680                                   | 330                  | 224   |
| Melon                           | 20                                    | 316                  | 6       | 10                                    | 316                  | 3     |
| Pimiento                        | 50                                    | 351                  | 18      | 20                                    | 351                  | 7     |
| Sandia                          | 130                                   | 547                  | 71      | 70                                    | 547                  | 38    |
| Tomate                          | 0                                     | 532                  | 0       | 0                                     | 532                  | 0     |
| Sapallo                         | 40                                    | 497                  | 20      | 20                                    | 497                  | 10    |
| Algodón                         | 260                                   | 409                  | 106     | 130                                   | 409                  | 53    |
| Maní                            | 130                                   | 195                  | 25      | 70                                    | 195                  | 14    |
| Soya                            | 10                                    | 153                  | 2       | 10                                    | 153                  | 2     |
| Cítricos                        | 250                                   | 815                  | 204     | 130                                   | 815                  | 106   |
| Plátano                         | 340                                   | 662                  | 225     | 170                                   | 662                  | 113   |
| Otros Cultivos                  | 40                                    | 612                  | 24      | 20                                    | 612                  | 12    |
| Pastos                          | 0                                     | 270                  | 0       | 0                                     | 270                  | 0     |
| Sub-Total                       | 2,790                                 |                      | 1,189   | 1,410                                 |                      | 602   |
| Beneficios                      |                                       |                      |         |                                       |                      |       |
|                                 |                                       |                      | 1,024   |                                       |                      | 205   |
| (US\$ = S/.530)                 | (US\$/ha)                             |                      | (1,137) |                                       |                      | (455) |

\*1 Ingreso neto por un cultivo

\*2 Subsistema de riego en Río Chico

\*3 Asumiendo que el ingreso neto del subsistema de riego de Río Chico alcanzará el mismo nivel de "la condición sin proyecto" se han unido estas últimas cifras

Tabla 5.7 BENEFICIOS DEL RIEGO (6/11)

|                                        | Santa Ana    |                             |                      | Mejía        |                             |                      | Ceibal - Guayaba |                             |                      |
|----------------------------------------|--------------|-----------------------------|----------------------|--------------|-----------------------------|----------------------|------------------|-----------------------------|----------------------|
|                                        | Area<br>(ha) | Ing. Neto*1<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*1<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha)     | Ing. Neto*1<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| <b>USO DE LA TIERRA - SIN PROYECTO</b> |              |                             |                      |              |                             |                      |                  |                             |                      |
| Cultivo anual                          | 2,600        |                             |                      | 990          |                             |                      | 3,660            |                             |                      |
| Cultivo perenne                        | 150          |                             |                      | 50           |                             |                      | 200              |                             |                      |
| Pasto                                  | 550          |                             |                      | 210          |                             |                      | 790              |                             |                      |
| Montes                                 | 0            |                             |                      | 0            |                             |                      | 0                |                             |                      |
| <b>SIN PROYECTO</b>                    |              |                             |                      |              |                             |                      |                  |                             |                      |
| Irrigated Field*2                      |              |                             |                      |              |                             |                      |                  |                             |                      |
| Maíz                                   | 190          | 166                         | 32                   | 70           | 166                         | 12                   | 260              | 166                         | 43                   |
| Arroz                                  | 380          | 176                         | 67                   | 150          | 176                         | 26                   | 540              | 176                         | 95                   |
| Sandía                                 | 30           | 547                         | 16                   | 10           | 547                         | 5                    | 50               | 547                         | 27                   |
| Tomate                                 | 90           | 531                         | 48                   | 40           | 531                         | 21                   | 130              | 531                         | 69                   |
| Maní                                   | 100          | 181                         | 18                   | 40           | 181                         | 7                    | 140              | 181                         | 25                   |
| Marigold                               | 50           | 146                         | 7                    | 20           | 146                         | 3                    | 70               | 146                         | 10                   |
| Otros Cultivos*3                       | 290          | 367                         | 106                  | 100          | 367                         | 37                   | 410              | 367                         | 150                  |
| Perennes*4                             | 130          | 323                         | 42                   | 40           | 323                         | 13                   | 170              | 323                         | 55                   |
| Pastos*5                               | 490          | 189                         | 93                   | 190          | 189                         | 36                   | 700              | 189                         | 132                  |
| Rainfed Field                          |              |                             |                      |              |                             |                      |                  |                             |                      |
| Algodón                                | 160          | 253                         | 40                   | 60           | 253                         | 15                   | 220              | 253                         | 56                   |
| Maíz                                   | 90           | 41                          | 4                    | 30           | 41                          | 1                    | 130              | 41                          | 5                    |
| Maní                                   | 30           | 121                         | 4                    | 10           | 121                         | 1                    | 50               | 121                         | 6                    |
| Otros Cultivos*6                       | 220          | 173                         | 38                   | 90           | 173                         | 16                   | 290              | 173                         | 50                   |
| Perenne*7                              | 20           | 185                         | 4                    | 10           | 185                         | 2                    | 30               | 185                         | 6                    |
| Pastos                                 | 60           | 33                          | 2                    | 20           | 33                          | 1                    | 90               | 33                          | 3                    |
| Sub-Total                              | 2,330        |                             | 521                  | 880          |                             | 196                  | 3,280            |                             | 732                  |
| <b>CON PROYECTO</b>                    |              |                             |                      |              |                             |                      |                  |                             |                      |
| Cultivos                               | 3,300        |                             |                      | 1,250        |                             |                      | 4,650            |                             |                      |
| Pastos                                 | 0            |                             |                      | 0            |                             |                      | 0                |                             |                      |
| Maíz                                   | 330          | 245                         | 81                   | 120          | 245                         | 29                   | 460              | 245                         | 113                  |
| Arroz                                  | 2,630        | 330                         | 868                  | 990          | 330                         | 327                  | 3,700            | 330                         | 1,221                |
| Melon                                  | 40           | 316                         | 13                   | 20           | 316                         | 6                    | 60               | 316                         | 19                   |
| Pimiento                               | 90           | 351                         | 32                   | 30           | 351                         | 11                   | 130              | 351                         | 46                   |
| Sandía                                 | 260          | 547                         | 142                  | 100          | 547                         | 55                   | 360              | 547                         | 197                  |
| Tomate                                 | 10           | 532                         | 5                    | 0            | 532                         | 0                    | 10               | 532                         | 5                    |
| Sapallo                                | 80           | 497                         | 40                   | 30           | 497                         | 15                   | 110              | 497                         | 55                   |
| Algodón                                | 510          | 409                         | 209                  | 190          | 409                         | 78                   | 720              | 409                         | 294                  |
| Maní                                   | 260          | 195                         | 51                   | 100          | 195                         | 20                   | 360              | 195                         | 70                   |
| Soya                                   | 30           | 153                         | 5                    | 10           | 153                         | 2                    | 40               | 153                         | 6                    |
| Cítricos                               | 490          | 815                         | 399                  | 180          | 815                         | 147                  | 690              | 815                         | 562                  |
| Plátano                                | 660          | 662                         | 437                  | 250          | 662                         | 166                  | 930              | 662                         | 616                  |
| Otros Cultivos                         | 80           | 612                         | 49                   | 30           | 612                         | 18                   | 110              | 612                         | 67                   |
| Pastos                                 | 0            | 270                         | 0                    | 0            | 270                         | 0                    | 0                | 270                         | 0                    |
| Sub-Total                              | 5,470        |                             | 2,331                | 2,050        |                             | 874                  | 7,680            |                             | 3,271                |
| Beneficios                             |              |                             | 1,810                |              |                             | 678                  |                  |                             | 2,539                |
| (US\$ = S/.530)(US\$/ha)               |              |                             | (1,035)              |              |                             | (1,023)              |                  |                             | (1,030)              |

\*1 Ingreso neto por un cultivo.

\*2 Sistema de riego de Poza Honda.

\*3 Promedio de haba, frejol, pepino y pimiento:  $(S/.489.000+S/.415.000+S/.207.000+S/.355.000)/4=S/.367.000/ha$

\*4 Promedio de plátano y cítricos:  $(S/.282.000+S/.364.000)/2=S/.323.000/ha$

\*5 No se dispone de datos de los ingresos bruto y neto. Por lo tanto, el ingreso neto bajo condición sin proyecto se asumió como el 70% de la condición con proyecto.

\*6 Promedio de camote, yuca y pimiento:  $(S/.145.000+S/.52.000+S/.322.000)/3=S/.173.000/ha$

\*7 Promedio de papaya y cacao:  $(S/.209.000+S/.160.000)/2=S/.185.000/ha$

Tabla 5.7 BENEFICIOS DEL RIEGO (7/11)

|                                 | Junín        |                            |                      | P.D.Pierda - La Anona |                            |                      | Río Caña     |                            |                      |
|---------------------------------|--------------|----------------------------|----------------------|-----------------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
|                                 | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha)          | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO |              |                            |                      |                       |                            |                      |              |                            |                      |
| Cultivo anual                   | 0            |                            |                      | 1,000                 |                            |                      | 70           |                            |                      |
| Cultivo perenne                 | 0            |                            |                      | 0                     |                            |                      | 20           |                            |                      |
| Pasto                           | 450          |                            |                      | 0                     |                            |                      | 390          |                            |                      |
| Montes                          | 0            |                            |                      | 0                     |                            |                      | 520          |                            |                      |
| SIN PROYECTO                    |              |                            |                      |                       |                            |                      |              |                            |                      |
| Maíz                            | 0            | 41                         | 0                    | 500                   | 41                         | 21                   | 60           | 41                         | 2                    |
| Arroz                           | 0            | 88                         | 0                    | 110                   | 88                         | 10                   | 0            | 88                         | 0                    |
| Melon                           | 0            | 80                         | 0                    | 10                    | 80                         | 1                    | 0            | 80                         | 0                    |
| Sandia                          | 0            | 520                        | 0                    | 40                    | 520                        | 21                   | 0            | 520                        | 0                    |
| Pepino dulce                    | 0            | 77                         | 0                    | 10                    | 77                         | 1                    | 0            | 77                         | 0                    |
| Pimiento                        | 0            | 322                        | 0                    | 10                    | 322                        | 3                    | 0            | 322                        | 0                    |
| Tomate                          | 0            | 46                         | 0                    | 20                    | 46                         | 1                    | 0            | 46                         | 0                    |
| Algodón                         | 0            | 253                        | 0                    | 90                    | 253                        | 23                   | 0            | 253                        | 0                    |
| Maní                            | 0            | 121                        | 0                    | 100                   | 121                        | 12                   | 0            | 121                        | 0                    |
| Fréjol                          | 0            | 220                        | 0                    | 10                    | 220                        | 2                    | 0            | 220                        | 0                    |
| Haba                            | 0            | 540                        | 0                    | 10                    | 540                        | 5                    | 0            | 540                        | 0                    |
| Yuca                            | 0            | 52                         | 0                    | 100                   | 52                         | 5                    | 0            | 52                         | 0                    |
| Cacao                           | 0            | 161                        | 0                    | 0                     | 161                        | 0                    | 0            | 161                        | 0                    |
| Cítricos                        | 0            | 364                        | 0                    | 0                     | 364                        | 0                    | 0            | 364                        | 0                    |
| Plátano                         | 0            | 282                        | 0                    | 0                     | 282                        | 0                    | 0            | 282                        | 0                    |
| Frutales                        | 0            | 209                        | 0                    | 0                     | 209                        | 0                    | 0            | 209                        | 0                    |
| Higuerilla                      | 0            | 2                          | 0                    | 0                     | 2                          | 0                    | 10           | 2                          | 0                    |
| Coco                            | 0            | 290                        | 0                    | 0                     | 290                        | 0                    | 0            | 290                        | 0                    |
| Pastos                          | 450          | 33                         | 15                   | 0                     | 33                         | 0                    | 390          | 33                         | 13                   |
| Sub-Total                       | 450          |                            | 15                   | 1,010                 |                            | 105                  | 460          |                            | 15                   |
| CON PROYECTO                    |              |                            |                      |                       |                            |                      |              |                            |                      |
| Cultivos                        | 450          |                            |                      | 1,000                 |                            |                      | 1,000        |                            |                      |
| Pastos                          | 0            |                            |                      | 0                     |                            |                      | 0            |                            |                      |
| Maíz                            | 40           | 245                        | 10                   | 100                   | 245                        | 25                   | 300          | 245                        | 74                   |
| Arroz                           | 360          | 330                        | 119                  | 800                   | 330                        | 264                  | 0            | 330                        | 0                    |
| Melon                           | 10           | 316                        | 3                    | 10                    | 316                        | 3                    | 40           | 316                        | 13                   |
| Pimiento                        | 10           | 351                        | 4                    | 30                    | 351                        | 11                   | 90           | 351                        | 32                   |
| Sandia                          | 40           | 547                        | 22                   | 80                    | 547                        | 44                   | 260          | 547                        | 142                  |
| Tomate                          | 0            | 532                        | 0                    | 0                     | 532                        | 0                    | 10           | 532                        | 5                    |
| Sapallo                         | 10           | 497                        | 5                    | 20                    | 497                        | 10                   | 80           | 497                        | 40                   |
| Algodón                         | 70           | 409                        | 29                   | 150                   | 409                        | 61                   | 590          | 409                        | 241                  |
| Maní                            | 30           | 195                        | 6                    | 80                    | 195                        | 16                   | 300          | 195                        | 59                   |
| Soya                            | 0            | 153                        | 0                    | 10                    | 153                        | 2                    | 30           | 153                        | 5                    |
| Cítricos                        | 70           | 815                        | 57                   | 150                   | 815                        | 122                  | 100          | 815                        | 82                   |
| Plátano                         | 90           | 662                        | 60                   | 200                   | 662                        | 132                  | 0            | 662                        | 0                    |
| Otros Cultivos                  | 10           | 612                        | 6                    | 20                    | 612                        | 12                   | 80           | 612                        | 49                   |
| Pastos                          | 0            | 270                        | 0                    | 0                     | 270                        | 0                    | 0            | 270                        | 0                    |
| Sub-Total                       | 740          |                            | 321                  | 1,650                 |                            | 702                  | 1,880        |                            | 742                  |
| Beneficios                      |              |                            |                      |                       |                            |                      |              |                            |                      |
|                                 |              |                            | 306                  |                       |                            |                      | 597          |                            |                      |
| (US\$ = S/.530)                 |              |                            | (1,283)              | (US\$/ha)             |                            |                      | (1,126)      | (1,372)                    |                      |
| * Ingreso neto por un cultivo   |              |                            |                      |                       |                            |                      |              |                            |                      |

Tabla 5.7 BENEFICIOS DEL RIEGO (8/11)

|                                 | Sancan - Cantagallo |                            |                      | Joa          |                            |                      | Salaite      |                           |                      |
|---------------------------------|---------------------|----------------------------|----------------------|--------------|----------------------------|----------------------|--------------|---------------------------|----------------------|
|                                 | Area<br>(ha)        | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO |                     |                            |                      |              |                            |                      |              |                           |                      |
| Cultivo anual                   | 2,750               |                            |                      | 600          |                            |                      | 100          |                           |                      |
| Cultivo perenne                 | 70                  |                            |                      | 0            |                            |                      | 0            |                           |                      |
| Pasto                           | 70                  |                            |                      | 0            |                            |                      | 0            |                           |                      |
| Montes                          | 6,110               |                            |                      | 250          |                            |                      | 0            |                           |                      |
| SIN PROYECTO                    |                     |                            |                      |              |                            |                      |              |                           |                      |
| Maíz                            | 2,430               | 41                         | 100                  | 540          | 41                         | 22                   | 50           | 41                        | 2                    |
| Arroz                           | 0                   | 88                         | 0                    | 0            | 88                         | 0                    | 0            | 88                        | 0                    |
| Melon                           | 10                  | 80                         | 1                    | 0            | 80                         | 0                    | 0            | 80                        | 0                    |
| Sandia                          | 20                  | 520                        | 10                   | 10           | 520                        | 5                    | 0            | 520                       | 0                    |
| Pepino dulce                    | 0                   | 77                         | 0                    | 0            | 77                         | 0                    | 0            | 77                        | 0                    |
| Pimiento                        | 0                   | 322                        | 0                    | 0            | 322                        | 0                    | 0            | 322                       | 0                    |
| Tomate                          | 0                   | 46                         | 0                    | 0            | 46                         | 0                    | 0            | 46                        | 0                    |
| Algodón                         | 10                  | 253                        | 3                    | 0            | 253                        | 0                    | 0            | 253                       | 0                    |
| Maní                            | 40                  | 121                        | 5                    | 0            | 121                        | 0                    | 0            | 121                       | 0                    |
| Fréjol                          | 40                  | 220                        | 9                    | 10           | 220                        | 2                    | 20           | 220                       | 4                    |
| Haba                            | 10                  | 540                        | 5                    | 10           | 540                        | 5                    | 30           | 540                       | 16                   |
| Yuca                            | 200                 | 52                         | 10                   | 40           | 52                         | 2                    | 0            | 52                        | 0                    |
| Cacao                           | 0                   | 161                        | 0                    | 0            | 161                        | 0                    | 0            | 161                       | 0                    |
| Cítricos                        | 40                  | 364                        | 15                   | 0            | 364                        | 0                    | 0            | 364                       | 0                    |
| Plátano                         | 0                   | 282                        | 0                    | 0            | 282                        | 0                    | 0            | 282                       | 0                    |
| Frutales                        | 0                   | 209                        | 0                    | 0            | 209                        | 0                    | 0            | 209                       | 0                    |
| Higuerilla                      | 20                  | 2                          | 0                    | 0            | 2                          | 0                    | 0            | 2                         | 0                    |
| Coco                            | 0                   | 290                        | 0                    | 0            | 290                        | 0                    | 0            | 290                       | 0                    |
| Pastos                          | 70                  | 33                         | 2                    | 0            | 33                         | 0                    | 0            | 33                        | 0                    |
| Sub-Total                       | 2,890               |                            | 160                  | 610          |                            | 36                   | 100          |                           | 22                   |
| CON PROYECTO                    |                     |                            |                      |              |                            |                      |              |                           |                      |
| Cultivos                        | 7,600               |                            |                      | 850          |                            |                      | 100          |                           |                      |
| Pastos                          | 1,400               |                            |                      | 0            |                            |                      | 0            |                           |                      |
| Maíz                            | 2,300               | 245                        | 564                  | 260          | 245                        | 64                   | 30           | 245                       | 7                    |
| Arroz                           | 0                   | 330                        | 0                    | 0            | 330                        | 0                    | 0            | 330                       | 0                    |
| Melon                           | 310                 | 316                        | 98                   | 30           | 316                        | 9                    | 0            | 316                       | 0                    |
| Pimiento                        | 710                 | 351                        | 249                  | 80           | 351                        | 28                   | 10           | 351                       | 4                    |
| Sandia                          | 2,010               | 547                        | 1,099                | 220          | 547                        | 120                  | 30           | 547                       | 16                   |
| Tomate                          | 60                  | 532                        | 32                   | 10           | 532                        | 5                    | 0            | 532                       | 0                    |
| Sapallo                         | 620                 | 497                        | 308                  | 70           | 497                        | 35                   | 10           | 497                       | 5                    |
| Algodón                         | 4,510               | 409                        | 1,845                | 500          | 409                        | 205                  | 60           | 409                       | 25                   |
| Maní                            | 2,250               | 195                        | 439                  | 250          | 195                        | 49                   | 30           | 195                       | 6                    |
| Soya                            | 230                 | 153                        | 35                   | 30           | 153                        | 5                    | 0            | 153                       | 0                    |
| Cítricos                        | 800                 | 815                        | 652                  | 90           | 815                        | 73                   | 10           | 815                       | 8                    |
| Plátano                         | 0                   | 662                        | 0                    | 0            | 662                        | 0                    | 0            | 662                       | 0                    |
| Otros Cultivos                  | 620                 | 612                        | 379                  | 70           | 612                        | 43                   | 10           | 612                       | 6                    |
| Pastos                          | 1,400               | 270                        | 378                  | 0            | 270                        | 0                    | 0            | 270                       | 0                    |
| Sub-Total                       | 15,820              |                            | 6,078                | 1,610        |                            | 636                  | 190          |                           | 77                   |
| Beneficios                      |                     |                            | 5,918                |              |                            | 600                  |              |                           | 55                   |
| (US\$ = S/.530)                 | (US\$/ha)           |                            | (1,241)              |              |                            | (1,332)              |              |                           | (1,038)              |
| * Ingreso neto por cultivo.     |                     |                            |                      |              |                            |                      |              |                           |                      |



Tabla 5.7 BENEFICIOS DEL RIEGO (9/11)

|                                 | Julcuy       |                            |                      | Ayampe       |                            |                      | La Union     |                            |                      |
|---------------------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
|                                 | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO |              |                            |                      |              |                            |                      |              |                            |                      |
| Cultivo anual                   | 0            |                            |                      | 0            |                            |                      | 0            |                            |                      |
| Cultivo perenne                 | 0            |                            |                      | 0            |                            |                      | 2,000        |                            |                      |
| Pasto                           | 0            |                            |                      | 0            |                            |                      | 0            |                            |                      |
| Montes                          | 600          |                            |                      | 150          |                            |                      | 0            |                            |                      |
| SIN PROYECTO                    |              |                            |                      |              |                            |                      |              |                            |                      |
| Maíz                            | 0            | 41                         | 0                    | 0            | 41                         | 0                    | 0            | 41                         | 0                    |
| Arroz                           | 0            | 88                         | 0                    | 0            | 88                         | 0                    | 0            | 88                         | 0                    |
| Melon                           | 0            | 80                         | 0                    | 0            | 80                         | 0                    | 0            | 80                         | 0                    |
| Sandía                          | 0            | 520                        | 0                    | 0            | 520                        | 0                    | 0            | 520                        | 0                    |
| Pepino dulce                    | 0            | 77                         | 0                    | 0            | 77                         | 0                    | 0            | 77                         | 0                    |
| Pimiento                        | 0            | 322                        | 0                    | 0            | 322                        | 0                    | 0            | 322                        | 0                    |
| Tomate                          | 0            | 46                         | 0                    | 0            | 46                         | 0                    | 0            | 46                         | 0                    |
| Algodón                         | 0            | 253                        | 0                    | 0            | 253                        | 0                    | 0            | 253                        | 0                    |
| Maní                            | 0            | 121                        | 0                    | 0            | 121                        | 0                    | 0            | 121                        | 0                    |
| Fréjol                          | 0            | 220                        | 0                    | 0            | 220                        | 0                    | 0            | 220                        | 0                    |
| Haba                            | 0            | 540                        | 0                    | 0            | 540                        | 0                    | 0            | 540                        | 0                    |
| Yuca                            | 0            | 52                         | 0                    | 0            | 52                         | 0                    | 0            | 52                         | 0                    |
| Cacao                           | 0            | 161                        | 0                    | 0            | 161                        | 0                    | 700          | 161                        | 113                  |
| Cítricos                        | 0            | 364                        | 0                    | 0            | 364                        | 0                    | 480          | 364                        | 175                  |
| Plátano                         | 0            | 282                        | 0                    | 0            | 282                        | 0                    | 350          | 282                        | 99                   |
| Frutales                        | 0            | 209                        | 0                    | 0            | 209                        | 0                    | 170          | 209                        | 36                   |
| Higuerilla                      | 0            | 2                          | 0                    | 0            | 2                          | 0                    | 280          | 2                          | 1                    |
| Coco                            | 0            | 290                        | 0                    | 0            | 290                        | 0                    | 20           | 290                        | 6                    |
| Pastos                          | 0            | 33                         | 0                    | 0            | 33                         | 0                    | 0            | 33                         | 0                    |
| Sub-Total                       | 0            |                            | 0                    | 0            |                            | 0                    | 2,000        |                            | 430                  |
| CON PROYECTO                    |              |                            |                      |              |                            |                      |              |                            |                      |
| Cultivos                        | 600          |                            |                      | 150          |                            |                      | 1,700        |                            |                      |
| Pastos                          | 0            |                            |                      | 0            |                            |                      | 300          |                            |                      |
| Maíz                            | 180          | 245                        | 44                   | 50           | 245                        | 12                   | 300          | 245                        | 74                   |
| Arroz                           | 0            | 330                        | 0                    | 0            | 330                        | 0                    | 1,800        | 330                        | 594                  |
| Melon                           | 20           | 316                        | 6                    | 10           | 316                        | 3                    | 20           | 316                        | 6                    |
| Pimiento                        | 60           | 351                        | 21                   | 10           | 351                        | 4                    | 60           | 351                        | 21                   |
| Sandía                          | 160          | 547                        | 88                   | 40           | 547                        | 22                   | 170          | 547                        | 93                   |
| Tomate                          | 0            | 532                        | 0                    | 0            | 532                        | 0                    | 0            | 532                        | 0                    |
| Sapallo                         | 50           | 497                        | 25                   | 10           | 497                        | 5                    | 50           | 497                        | 25                   |
| Algodón                         | 360          | 409                        | 147                  | 90           | 409                        | 37                   | 120          | 409                        | 49                   |
| Maní                            | 180          | 195                        | 35                   | 40           | 195                        | 8                    | 60           | 195                        | 12                   |
| Soya                            | 20           | 153                        | 3                    | 0            | 153                        | 0                    | 0            | 153                        | 0                    |
| Cítricos                        | 60           | 815                        | 49                   | 20           | 815                        | 16                   | 70           | 815                        | 57                   |
| Plátano                         | 0            | 662                        | 0                    | 0            | 662                        | 0                    | 300          | 662                        | 199                  |
| Otros Cultivos                  | 50           | 612                        | 31                   | 10           | 612                        | 6                    | 50           | 612                        | 31                   |
| Pastos                          | 0            | 270                        | 0                    | 0            | 270                        | 0                    | 300          | 270                        | 81                   |
| Sub-Total                       | 1,140        |                            | 449                  | 280          |                            | 113                  | 3,300        |                            | 1,242                |
| Beneficios                      |              |                            |                      |              |                            |                      |              |                            |                      |
|                                 |              |                            | 449                  |              |                            | 113                  |              |                            | 812                  |
| (US\$ = S/.530)                 | (US\$/ha)    |                            | (1,412)              |              |                            | (1,421)              |              |                            | (766)                |
| * Ingreso neto por un cultivo.  |              |                            |                      |              |                            |                      |              |                            |                      |

Tabla 5.7 BENEFICIOS DEL RIEGO (10/11)

|                                 | Noboa        |                             |                       | Olmedo       |                             |                       | Lascano      |                            |                       |
|---------------------------------|--------------|-----------------------------|-----------------------|--------------|-----------------------------|-----------------------|--------------|----------------------------|-----------------------|
|                                 | Area<br>(ha) | Ing. Neto*<br>(S/./Mil./ha) | Total<br>(S/./Millon) | Area<br>(ha) | Ing. Neto*<br>(S/./Mil./ha) | Total<br>(S/./Millon) | Area<br>(ha) | Ing. Neto<br>(S/./Mil./ha) | Total<br>(S/./Millon) |
| USO DE LA TIERRA - SIN PROYECTO |              |                             |                       |              |                             |                       |              |                            |                       |
| Cultivo anual                   | 0            |                             |                       | 0            |                             |                       | 0            |                            |                       |
| Cultivo perenne                 | 640          |                             |                       | 0            |                             |                       | 220          |                            |                       |
| Pasto                           | 960          |                             |                       | 1,400        |                             |                       | 880          |                            |                       |
| Montes                          | 0            |                             |                       | 0            |                             |                       | 0            |                            |                       |
| SIN PROYECTO                    |              |                             |                       |              |                             |                       |              |                            |                       |
| Maíz                            | 0            | 41                          | 0                     | 0            | 41                          | 0                     | 0            | 41                         | 0                     |
| Arroz                           | 0            | 88                          | 0                     | 0            | 88                          | 0                     | 0            | 88                         | 0                     |
| Melon                           | 0            | 80                          | 0                     | 0            | 80                          | 0                     | 0            | 80                         | 0                     |
| Sandia                          | 0            | 520                         | 0                     | 0            | 520                         | 0                     | 0            | 520                        | 0                     |
| Pepino dulce                    | 0            | 77                          | 0                     | 0            | 77                          | 0                     | 0            | 77                         | 0                     |
| Pimiento                        | 0            | 322                         | 0                     | 0            | 322                         | 0                     | 0            | 322                        | 0                     |
| Tomate                          | 0            | 46                          | 0                     | 0            | 46                          | 0                     | 0            | 46                         | 0                     |
| Algodón                         | 0            | 253                         | 0                     | 0            | 253                         | 0                     | 0            | 253                        | 0                     |
| Maní                            | 0            | 121                         | 0                     | 0            | 121                         | 0                     | 0            | 121                        | 0                     |
| Fréjol                          | 0            | 220                         | 0                     | 0            | 220                         | 0                     | 0            | 220                        | 0                     |
| Haba                            | 0            | 540                         | 0                     | 0            | 540                         | 0                     | 0            | 540                        | 0                     |
| Yuca                            | 0            | 52                          | 0                     | 0            | 52                          | 0                     | 0            | 52                         | 0                     |
| Cacao                           | 220          | 161                         | 35                    | 0            | 161                         | 0                     | 30           | 161                        | 5                     |
| Cítricos                        | 150          | 364                         | 55                    | 0            | 364                         | 0                     | 120          | 364                        | 44                    |
| Plátano                         | 110          | 282                         | 31                    | 0            | 282                         | 0                     | 30           | 282                        | 8                     |
| Frutales                        | 50           | 209                         | 10                    | 0            | 209                         | 0                     | 20           | 209                        | 4                     |
| Higuerilla                      | 90           | 2                           | 0                     | 0            | 2                           | 0                     | 20           | 2                          | 0                     |
| Coco                            | 10           | 290                         | 3                     | 0            | 290                         | 0                     | 0            | 290                        | 0                     |
| Pastos                          | 960          | 33                          | 32                    | 1,400        | 33                          | 46                    | 880          | 33                         | 29                    |
| Sub-Total                       | 1,590        |                             | 166                   | 1,400        |                             | 46                    | 1,100        |                            | 90                    |
| CON PROYECTO                    |              |                             |                       |              |                             |                       |              |                            |                       |
| Cultivos                        | 1,250        |                             |                       | 1,400        |                             |                       | 1,100        |                            |                       |
| Pastos                          | 350          |                             |                       | 0            |                             |                       | 0            |                            |                       |
| Maíz                            | 220          | 245                         | 54                    | 250          | 245                         | 61                    | 190          | 245                        | 47                    |
| Arroz                           | 1,320        | 330                         | 436                   | 1,480        | 330                         | 488                   | 1,160        | 330                        | 383                   |
| Melon                           | 20           | 316                         | 6                     | 20           | 316                         | 6                     | 20           | 316                        | 6                     |
| Pimiento                        | 40           | 351                         | 14                    | 50           | 351                         | 18                    | 40           | 351                        | 14                    |
| Sandia                          | 120          | 547                         | 66                    | 140          | 547                         | 77                    | 110          | 547                        | 60                    |
| Tomate                          | 0            | 532                         | 0                     | 0            | 532                         | 0                     | 0            | 532                        | 0                     |
| Sapallo                         | 40           | 497                         | 20                    | 40           | 497                         | 20                    | 30           | 497                        | 15                    |
| Algodón                         | 90           | 409                         | 37                    | 100          | 409                         | 41                    | 80           | 409                        | 33                    |
| Maní                            | 50           | 195                         | 10                    | 50           | 195                         | 10                    | 40           | 195                        | 8                     |
| Soya                            | 0            | 153                         | 0                     | 0            | 153                         | 0                     | 0            | 153                        | 0                     |
| Cítricos                        | 60           | 815                         | 49                    | 60           | 815                         | 49                    | 50           | 815                        | 41                    |
| Plátano                         | 220          | 662                         | 146                   | 250          | 662                         | 166                   | 190          | 662                        | 126                   |
| Otros Cultivos                  | 40           | 612                         | 24                    | 40           | 612                         | 24                    | 30           | 612                        | 18                    |
| Pastos                          | 350          | 270                         | 95                    | 0            | 270                         | 0                     | 0            | 270                        | 0                     |
| Sub-Total                       | 2,570        |                             | 957                   | 2,480        |                             | 960                   | 1,940        |                            | 751                   |
| Beneficios                      |              |                             |                       |              |                             |                       |              |                            |                       |
|                                 |              |                             | 791                   |              |                             |                       | 914          |                            |                       |
| (US\$ = S/./530) (US\$/ha)      |              |                             | (933)                 |              |                             |                       | (1,232)      |                            |                       |
| * Ingreso neto por un cultivo.  |              |                             |                       |              |                             |                       |              |                            |                       |

Tabla 5.7 BENEFICIOS DEL RIEGO (11/11)

|                                           | Pajan        |                            |                      | Banchal      |                            |                      |
|-------------------------------------------|--------------|----------------------------|----------------------|--------------|----------------------------|----------------------|
|                                           | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) | Area<br>(ha) | Ing. Neto*<br>(S/.Mil./ha) | Total<br>(S/.Millon) |
| USO DE LA TIERRA - SIN PROYECTO           |              |                            |                      |              |                            |                      |
| Cultivo anual                             | 0            |                            |                      | 0            |                            |                      |
| Cultivo perenne                           | 0            |                            |                      | 0            |                            |                      |
| Pasto                                     | 1,300        |                            |                      | 1,350        |                            |                      |
| Montes                                    | 0            |                            |                      | 0            |                            |                      |
| SIN PROYECTO                              |              |                            |                      |              |                            |                      |
| Maíz                                      | 0            | 41                         | 0                    | 0            | 41                         | 0                    |
| Arroz                                     | 0            | 88                         | 0                    | 0            | 88                         | 0                    |
| Melon                                     | 0            | 80                         | 0                    | 0            | 80                         | 0                    |
| Sandía                                    | 0            | 520                        | 0                    | 0            | 520                        | 0                    |
| Pepino dulce                              | 0            | 77                         | 0                    | 0            | 77                         | 0                    |
| Pimiento                                  | 0            | 322                        | 0                    | 0            | 322                        | 0                    |
| Tomate                                    | 0            | 46                         | 0                    | 0            | 46                         | 0                    |
| Algodón                                   | 0            | 253                        | 0                    | 0            | 253                        | 0                    |
| Maní                                      | 0            | 121                        | 0                    | 0            | 121                        | 0                    |
| Fréjol                                    | 0            | 220                        | 0                    | 0            | 220                        | 0                    |
| Haba                                      | 0            | 540                        | 0                    | 0            | 540                        | 0                    |
| Yuca                                      | 0            | 52                         | 0                    | 0            | 52                         | 0                    |
| Cacao                                     | 0            | 161                        | 0                    | 0            | 161                        | 0                    |
| Cítricos                                  | 0            | 364                        | 0                    | 0            | 364                        | 0                    |
| Plátano                                   | 0            | 282                        | 0                    | 0            | 282                        | 0                    |
| Frutales                                  | 0            | 209                        | 0                    | 0            | 209                        | 0                    |
| Higuerilla                                | 0            | 2                          | 0                    | 0            | 2                          | 0                    |
| Coco                                      | 0            | 290                        | 0                    | 0            | 290                        | 0                    |
| Pastos                                    | 1,300        | 33                         | 43                   | 1,350        | 33                         | 45                   |
| Sub-Total                                 | 1,300        |                            | 43                   | 1,350        |                            | 45                   |
| CON PROYECTO                              |              |                            |                      |              |                            |                      |
| Cultivos                                  | 1,300        |                            |                      | 1,300        |                            |                      |
| Pastos                                    | 0            |                            |                      | 50           |                            |                      |
| Maíz                                      | 230          | 245                        | 56                   | 230          | 245                        | 56                   |
| Arroz                                     | 1,380        | 330                        | 455                  | 1,380        | 330                        | 455                  |
| Melon                                     | 20           | 316                        | 6                    | 20           | 316                        | 6                    |
| Pimiento                                  | 50           | 351                        | 18                   | 50           | 351                        | 18                   |
| Sandía                                    | 130          | 547                        | 71                   | 130          | 547                        | 71                   |
| Tomate                                    | 0            | 532                        | 0                    | 0            | 532                        | 0                    |
| Sapallo                                   | 40           | 497                        | 20                   | 40           | 497                        | 20                   |
| Algodón                                   | 100          | 409                        | 41                   | 100          | 409                        | 41                   |
| Maní                                      | 50           | 195                        | 10                   | 50           | 195                        | 10                   |
| Soya                                      | 0            | 153                        | 0                    | 0            | 153                        | 0                    |
| Cítricos                                  | 60           | 815                        | 49                   | 60           | 815                        | 49                   |
| Plátano                                   | 230          | 662                        | 152                  | 230          | 662                        | 152                  |
| Otros Cultivos                            | 40           | 612                        | 24                   | 40           | 612                        | 24                   |
| Pastos                                    | 0            | 270                        | 0                    | 50           | 270                        | 14                   |
| Sub-Total                                 | 2,330        |                            | 902                  | 2,380        |                            | 916                  |
| Beneficios                                |              |                            |                      |              |                            |                      |
|                                           |              |                            | 859                  |              |                            | 871                  |
| (US\$ = S/.530) (US\$/ha) (1,247) (1,217) |              |                            |                      |              |                            |                      |
| * Ingreso neto por un cultivo.            |              |                            |                      |              |                            |                      |