IV. PROJECT ANALYSIS

1. Method of Analysis

The food problem is still paramount in the food priority countries like Indonesia, due to the low level of agricultural productivity and the high growth rate of population. Indonesia has a vast potential for agricultural development in the outer islands. Therefore, under the Second and Third Five Year Plan the huge investments for agricultural development have been made in the outer islands, and in particular, Lampung Province which is favourably located, is assumed as a base of food production for the ever increasing population in Java.

However, the various investments to production infrastructure like irrigation facilities in Lampung have induced the inflow of a huge number of spontaneous transmigrants from Java. They, having little capital, are engaging in producing food mainly for home consumption in a small scale, and usually are among the last to discard their traditional farming methods. In fact, in addition to the limited financial and technical resources, the lack of knowledge about how to reach these millions of small farmers has prevented the national programs for increased food production from encouraging small farmers to participate in these programs. This is a reason why the Lampung Tani Makmur Project has been carried in execution aiming at disseminating new farming techniques among small farmers under the close cooperation between Indonesia and Japan.

Small farmers can be assisted in learning and acquiring new methods of farming by such activities of the Extension Project, Tani Makmur Project, as intensive guidance, training and provision of production materials. Although the agricultural development is attained not only by the learning of new knowledge but also by the existence of socio-economic conditions, under which the higher productivity would be realized by using new techniques, the project activities are crucial in order to stimulate farmers to improve their farming practices, and some of these activities pave the way of performing other activities in the process of project implementation. Therefore, we have to identify the effects brought about in sequence and to distinguish the advantages incidentally resulted from the project implementation through examination of changes in farming practices and farm economies according to the phases of the project implementation.

The implementation of Lampung Tani Makmur Project can be divided into two phases. The first phase, which covered 19 kecamatans in Kabupaten South Lampung and Central Lampung, started in November 1972, and the second one was commenced in November 1977. The Project activities in the first phase was rather concentrated on bringing up the applicable farming technology to the local conditions and on providing farmers with intensive guidance for practice of improved farming method at the demonstration farms. The second period of the Tani Makmur Project is the continuation of the first period, but the Project in this phase has been carried with some modifications in order to adjust the activities to the latest conditions and policy of agricultural development in the province.

The activities of the Project are inseparable parts of the whole efforts exerted to attain the objective of agricultural development in Lampung Province. In the second phase, based on the achievements of the Project in the first phase, the considerable efforts to disseminate

new farming methods among the farmers in the province through the R.E.C. network, introduced in 1977, have been made. For instance, the system LAKU (training and visit system) has been gradually introduced together with activities of intensive guidance in demo-farms of the Project. Thus, the effects of the Project have gradually spread over beyond the boundary of demo-farms. As stated before, at least in the lowland area, the fact, that the income gap between the demo-farms and non demo-farms has been narrowed in recent years, indicates the expansion of areas under new farming practices outside the demo-farms.

Such an educational effect of the Project will continue to accrue well after termination of the Project and will constitute the most significant part of the effects of the Project. For the time being, however, the observation period for project analysis covers a twelve year period from 1972 to 1983, because the present strategy of agricultural development in Lampung will be maintened under the Third Five Yar Plan (REPELITA III).

In accordance with the idea mentioned above, we identify the effects brought about by the Project and examine the relation of benefit and costs related to the Project in the following way:

(1) In assigning values to the goods and services used in the Project and to resulting benefits, it is assumed that market values approximate the alternative costs of the resources employed.

(2) The value of net direct benefits obtained and associated costs for each year are also determined by the change in monetary prices respectively, taking the effects of inflation and changes in exchange rate into account.

(3) And the benefit cost ratio is calculated using the following formula:

$$\frac{B}{C} = \frac{\sum \frac{bi-ai}{(1+r)^i}}{\sum \frac{ci}{(1+r)^i}}$$

where, $i = 1, 2, 3, \ldots\ldots\ldots\ldots 12$

B = present value of the stream of real benefits of the Project for the 12 year period.

C = present value of the stream of real costs of the Project for the 12 year period.

bi = gross benefits attributable to the Project in the i-th year, assessed at a fixed prices.

ai = associated costs attributable to the Project in the i-th year, assessed at a fixed price.

ci = cost of the Project in the i-th year, adjusted by the wholesale price index.

r = discount rate, in this report 15 % is used.

2. Classification of Benefits and Costs

The most common practices in defining the type of benefit to include in a benefit-cost analysis is to consider only the quantifiable benefits directly attributable to the Project. As the direct benefits, in this report, the annual increase in yields of paddy, upland rice, maize and cassava attributable to the Project is calculated by taking the difference between the observed yield of the demo-farms and the average yield in the concerned area, i.e. Lampung Province. These annual increase in yields of four crops mentioned are multiplied by the number or hectares cultivated by the farmers, who are provided with intensive guidance for farming directly by the Project, to obtain the increase in production attributable directly to the Project.

Although seldom considered because of the difficulty in identifying effects, the quantifiable economic effect indirectly induced by the operation of the Project is examined for lowland farming in addition to the direct benefits mentioned above in this report. Because as stated before, in the second phase of the Project, the extension activities for the non demo-farms through the BEC network are reinforced by using extension materials produced by the Project and by fostering actively the extension workers, in addition to the intensive guidance to the demo-farms.

As indicated in the preceeding chapters, the gaps in land productivity and farm income between the demo and the non demo-farms in the Project, compared with the gaps existed in the first phase. Therefore, it may be able to say that the average yield of rice per hectare in Lampung might have a trend similar to that of yield of rice on national average, unless the Tani Makmur Project is executed. In fact, the annual increase rate of yield of rice in Lampung registered 4.3 % in the last six years as against 2.1 % on the national average.

Considering these facts we tried to quantify the effects of the Project spread in the lowland area widely based on the following assumption:

(1). Increase in average yield of rice in Lampung indicates the extent of expansion of area under the improved farming practices.

(2). Assumed that the level of yield has a similar trend to the yield on national average unless the second phase of the Project is executed after 1977, the gaps in yield of rice between the actual yield of rice in the demo-farms and in Lampung and assumed level of yield indicate the increment of the gross benefit obtained respectively.

Costs of Project can be classified as operational costs and associated costs. The former is the value of the goods and services used to establish and operate the Project, and the latter is the value of the goods and services that are necessary to perform the activities of the Project. The associated costs charged to the Project is the difference between costs that would have been incurred if the Project does not exist and those incurred within the Project.

Accordingly the net direct benefit is the gross value of production under the Project, less the gross value of estimated production without the Project, less the estimated difference in the associated costs incurred with and without the Project. The values of increase in output and production costs of crops are calculated using the prices realized in the market in 1976 obtained from the various data.

The average yields of upland crops in the Province have not shown significant increase in the last seven years. Therefore the derived benefits of the Project are not estimated.

As another direct benefit, we take into account the values of materials provided to the farmers by the Project. Because the amounts of money paid for these materials by farmers are kept in farmers' hands as group funds and these funds can be reinvested thereby permitting the generation of additional benefit.

The associated costs are the cost of fertilizers, chemicals and labor in excess of those incurred by farmers using the traditional technology. It is recognized that the adoption of new technology recommended by the Project requires a more intensive use of farm implements than the traditional technology and the labor requirements increase considerably. In general there seems to be surplus labor in the area, but at specific times of the year hired labor must be found. Therefore, daily wage of hired labor is charged for hired labor which is found for some specific operations of farming, and no associated costs is charged for family labor.

Calculations of annual costs of the Project take the followings into consideration:

(1). The costs of machine, equipments and other durable items which are charged to the year in which they are purchased, even though they are used continuously for several years even beyond the Project period, but the salvage values at the end of observation period are deducted.

(2). Costs of materials and services are also charged to each year.

The value of project costs which consist of the Indonesian counter funds and the Japanese assistance exerted to the Project.
The value of Japanese assistance of Yen is converted into Rupiah using the exchange rate in 1976. As for the Japanese assistance as a alternative, the charges for services and materials provided are estimated at no cost from the financial view point of the Indonesian Government.

3. Estimation of Benefit-Cost Ratio.

To compare costs and benefits corresponding to different years, it is necessary to take into account the added benefits that may be derived from reinvesting capital. The costs and benefits in this analysis are adjusted for added benefits from reinvestment, using a discount rate of 15%. The estimation is summarized in Table IV – 1.

The present value of net direct benefit and the project costs are summed over years. The benefit-cost ratio thus obtained for the Tani Makmur Project is shown in Table IV – 2. Alternative I shows a B/C ratio obtained from total net benefit of the Project and total project costs. Alternative II is a B/C ratio for the national Treasury of Indonesia.

Roughly saying the B/C ratio obtained is adequate, showing the net benefit generated exceeds the project cost. If we take indirect effects into account more actively, for instance the increase in employment opportunities in the rural area, we obtain the higher ratio. Further, it can be expected that benefit due to the Tani Makmur Project will continue to occure in years to come, thereby giving a benefit-cost ratio above the obtained one for direct and derived benefits.

4. Intangible Benefits.

An important intangible benefit derived from the Tani Makmur Project is the progress that has been made in assisting farmers to organize in groups and resolve problems in a cooperative manner.

The group activities have paved a way to expand a scale of their economic activities and to increase the level to credibility to loan. Another important intangible benefit attributable to the Project is favourable changes that has occured in the farmers' attitude toward agriculture. They have now an intention to improve themselves actively and they are eager to obtain technological information in order to expand their farming activities.

Year	Paddy				Upland rice		Maize		Cassava		Present value of total net benefit	Present value of materials supplied	Present value of project cost	
	Direct benefit		Induced benefit										I	II
	B Rp 1000	A Rp ha	B Rp 1000	A ha	B Rp 1000	A ha	B Rp 1000	A ha	B Rp 1000	A ha	Rp million	Rp million	Rp million	
1972		–	–	–	–	–	–	–	–	–	–	–	449.8	0.4
73	114	20	–	103.487	–	–	–	–	–	–	3.47	4.74	376.0	220.9
74	63	140	–	109.501	33	62	34	57	83	37	15.87	9.33	425.0	162.1
75	37	399	–	134.173	47	324	17	662	54	319	55.61	42.54	549.0	133.8
76	37	749	–	121.745	60	812	13	520	4	1.113	74.12	43.26	547.0	137.8
77	52	824	–	135.579	41	2.141	21	1.792	56	1.986	177.58	47.15	652.3	88.9
78	56	883	–	135.571	27	4.243	5	3.322	52	3.966	292.52	–	337.5	77.3
79	54	944	0.7	162.550	26	4.351	20	3.677	33	4.404	554.03	–	222.8	85.3
80	52	1.127	3.3	194.879	46	5.557	8	4.632	33	5.304	668.24	–	132.7	56.4
81	51	1.248	5.6	233.682	46	6.541	4	5.475	34	6.204	948.28	–	54.8	54.8
82	50	1.372	7.8	280.186	46	7.525	4	6.318	34	7.104	1.241.13	–	47.7	47.7
83	49	1.492	10.1	338.610	46	8.509	4	7.161	34	8.004	1.573.41	–	41.4	41.4
Total											5.604.16	147.02	3.836.0	1.106.8

Note : B ... Net benefit per ha
A ... Planted area
Project cost I ..... Total cost
Project cost II ..... Exeluding Japanese assistance

Table IV – 2 Benefit Cost Ratio

Alternative	Direct net benefit	Project cost	B/C ratio	
	..... million Rp.			
I	5,751.2	3.836.0	1.50	a)
II	5,751.2	1,106.8	5.20	

Note : a) B/C ratio of the Project for the National Treasury of Indonesia

V. CONCLUSION AND RECOMMENDATION

1. Conclusion.

It can be considered that the Project has almost performed the activities as stipulated in the amended master plan of the Project. With the continuous effort by the Project, land productivity, level of farm incomes and living standard of farm families have been improved considerably, and the attitudes of farmers toward agriculture have been changed further more after extension of the Project.

Generally speaking, in lowland area the target has been almost completed. On the other hand, in upland area the effect of the Project is still not yet reflected so much, although the considerable effect can be seen within the demo-farm area.

As far as the activities at Tegineneng Centre is concerned, it has been carried out effectively.

Tegineneng Centre.

Transfer of knowledge.

(1) The Tegineneng Centre has performed the activities as stipulated in the amended master plan of the Project.

(2) The Centre has notably contributed to the transfer of knowledge from the Japanese experts to the Indonesian counterparts and extension workers through studying together and training. In particular, the regular training of extension worker, within as well as outside the Project has been reinforced in connection with the RECs.

(3) The expansion of laboratory facilities at the Centre has accelerated the transfer of knowledge to the counterparts, along with the intensified exchange of information on technical problems with CRIA and universities.

(4) Technical and economic data collected through trials, yield sampling, farm surveys and so on, are analyzed and utilized for preparation of extension materials. However, these data and results of analysis are prevented from utilizing fully due to a lack of budget, although some of materials prepared by the Japanese experts and the counterparts have been distributed to the RECs.

(5) LTMP has conducted many trials in the period. Anyhow some of them are shifted or totally deleted because of the limited budget. But as there were trials conducted by F.A.O. which could be complementary each others, the result was sufficient. Those results were used for improving the extension recommendation.

Seed multiplication.

(1) The activities concerning seed multiplication have been favourably developed. It is attributable to the competency of the staff which has been fostered by the Japanese experts, and to the improvement of field conditions in the Centre.

(2) Although the relatively limited supply of foundation seeds, especially of upland

rice from CRIA, has constituted an obstacle so far, the Centre has now a capacity of producing foundation seed under cooperation and supervision of CRIA.

W o r k s h o p.

The workshop has become to provide facilities for maintenance and repairing machines and training of the staff, and the efforts are made to explore its potential for providing simple farming tools and spareparts.

Lowland Farming Development

The Lowland Farming Development sub project has shown significant progress in terms of transfer of new technology to the farmers through intensive guidance to the farmers groups. The demonstration at demo-farms in lowland area, which is the main activity of the sub project, has properly been performed in succession to the first phase of the Project, judged from the expansion of area covered, the increase in number of farmers' groups and the improvement of land productivity. The improvement of land productivity has undoubtedly resulted in the increase in farm income.

According to the data obtained, the land productivity of paddy in demo-farms is higher than the average level in Central and South Lampung, but it seems that the gap in yield between the demo-farms and others has been narrowed recently.

This may indicate that the improved techniques of paddy farming has been disseminated widely among the farmers through the activities of BECs which follow the methods adopted in the demo-farms.

Special attention on crop protection aspects just started in 1978. Activities concerned were limited specially on inventarization of important pests and diseases, trials, training and supply of crop protection machineries and pesticides. It is a fact that in Lampung area pests and diseases act as an important constraint in food crop production programme. Introduction and intensification of new technology on crop production should be followed by proper crop protection treatments.

The Tani Makmur Project has supported the farmers associations to introduce and operate 8 Rice Mill Units so far. The Project takes an important role in technical and administrative guidance covering activities from collection of raw materials up to marketing. However, the improvement of its management is absolutely needed.

In the second phase of the Project, the number of farmers' groups and the repayment of the revolving fund decreased due to less intensified guidance. In this respect, it is required to maintain the intensified guidance in order to improve the management of farmers fund.

Upland Farming Development.

Improved farming techniques based on the results of trials and experiments conducted by the Project have been adopted by the demo-farms in the upland area, and the area covered by the demo-farms and number of Kelompok (farmers' group) have increased. The increased number of Himpunan (association of farmers' groups) after 1977/1978 shows the achievement

of the activities of the Project. However, yield per hectare of major crops such as upland rice, maize and cassava has hardly shown the improvement in the second phase of the Project.

This unsatisfactory performance of upland farming may be attributable partly to some damages caused by pests and diseases. As the upland crops like upland rice and maize are rather vulnerable to weather conditions compared with lowland rice, the farmers are generally apt to practice intercropping in order to avoid the uncertainty of production and to meet the capacity of family labor.

Inter-cropping of upland rice with maize and cassava, which are rather fertility exhausting crops, necessitates careful fertilization. Viewed from this point, farmers-practices are not adequate for fertilization and land preparation. However, the more intensified farming is restricted by the capacity of family labor, and the small scale farming of crops with less marketable value is maintained, in spite of the existence of some rooms for expansion of arable land.

Rural Extension Centre.

LTMP has already supported RECs by training and providing extension materials.
Demo-farm has become an effective media in developing RECs activities.

Farmers Organization.

Group activities of farmers are requested in the demo-farms and the farmers' groups are encouraged to form the association of groups, which is assumed as an embryo of the village unit cooperative (KUD). Although the progress has not seen so satisfactory yet, these farmers activities could make progress, if the proper guidance is provided continuously.

2. Recommendation.

The Project has experienced its successful execution in general during the whole project period of eight years. Out of its attainment it should be noted that the lowland farming activities have been so remarkably improved that farm households in the lowland area, compared with other farming area in Lampung, have become possible to enjoy the advanced level of living standard through the higher income derived from the improved farming practices supported by the Project.

However, it should be also mentioned that there exists some room, especially in upland farming, to which the necessary effort should be made not only to achieve more completed implementation in the remaining period of the Project, but to realize the further agricultural development in Lampung.

Herein, the JET would make some technical and professional recommendations to cope with the above mentioned aims based on the observations and analyses during its stay in Province of Lampung.

(1). The Tegineneng centre, no doubt, is and will be a vital source of agro-technical knowledge and forms the core of technology transfer and dissemination of new farming ideas. It is expected that Tegineneng Centre could be legalized as an Agricultural Development Centre based on the Agriculture Minister's Degree No. 320, 1979, because actually it already functioned efficiently as a vital source of agro-technical institution.

(2). Activity of using the facility of faboratory will be maintained by the close relationship between CRIA and other organizations.

(3). As for the workshop, financial support and training of more mechanics are necessary to maintain or develop the function of the workshop. Upon termination of the Project, the availability of some spareparts may become a crucial problem, although most of spereparts have become available in the local market.

(4). The Project has leased many kinds of farming machines to farmers' groups. However, it seems that most of these groups are not always using these machines efficiently. The more intensified coaching for utilization is required.

(5). When the Project terminates, the legal status of the equipments lent to the farmers' groups will become a problem. The solution should be found in accordance with the government regulation. However, it may be required to study the way of promoting farm mechanization including the possibility of disposal of small scale machines such as sprayers and handtractors in a way similar to that of handing over of rice mills to farmers' groups.

(6). Studies on crop protection aspects need more attention to cope with the existing condition. Extension of crop protection knowledge through dissemination of information to farmers groups should be intensified. Formation of pest control groups would be helpful to combat with pests and diseases problems in the area. Integrated pest control is sound concept to be developed and implemented.

(7). In order to improve and stabilize the farm economy in the upland area, the expansion of management should be considered as well as the improvement of farming techniques. Therefore, further studies and trials on upland farming should be continued.

(8). When the Project terminates, the legal status of revoling funds, which have been accumulated by the farmers' groups to facilitate the introduction of improved farming techniques under the guidance of the Project, will become one of the problems.
Therefore, the farmers' groups with such accumulated funds should be encouraged to form KUD to expand group activities for agricultural development.

(9). The consideration should be given to the continuation of proper guidance to farmers' association for operation of rice mill units, and to farmers' groups for reinforcement of training of farm mechanization.

(10). Demo-farm activities should be continued, as a media activities of PPLs.

APPENDICES

Table 1 : Training and Courses in Toginonong Centre, F.Y. 1977/1978

No.	Kind of Training/Course	Date	Participant (persons)	Duration (days)	Conducted by
1.	Training of spot worker	31 July – 5 Aug. '77	20	6	Tani Makmur
2.	Training of PPLs (Tani Makmur and REC)	6 – 12 Aug. '77	38	7	Tani Makmur
3.	Course of Agric. machinery operators	21 – 25 Mar. '78	20	5	Tani Makmur
4.	– ditto –	27 – 31 Mar. '78	20	5	Tani Makmur
5.	Meeting of Tani Makmur Demo-farm Farmers' Association (organizer)	31 – 1 Apr. '78	116	2	Tani Makmur
6.	Training of Cropping System	4 – 5 July '78	20	2	C R J A
7.	Coaching of Pest Controle	18 – 23 July '77	24	5	
8.	Course of P3A (organizer)	25 – 30 July '77	24	6	
9.	Coaching of Citrus Crop Rehabilitation	26 – 28 Sep. '77	21	3	
10.	Coaching of Trial (spot workers)	10 – 12 Oct. '77	20	3	
11.	Coaching of Simple Reclamation of Irrigation	19 – 21 Oct. '77	20	3	
12.	Workshop of water pump	13 – 14 Dec. '77	90	2	
13.	Technical meeting of Diperta Lampung Province	13 – 14 Dec. '77 22 – 24 Dec. '77	90 150	2 3	
14.	Training of Agriculture Extension Worker	27 – 31 Dec. '77	25	5	
15.	Meeting of key farmers (all Sumatera)	16 – 21 Jan. '78	50	5	
16.	Technical meeting of PPLs Lampung Province	30 – 31 Jan. '78	150	2	
17.	Workshop of IRS Survey and Monitoring (all Southern Sumatera)	22 – 25 Feb. '78	62	4	
18.	Meeting of HKTI, Lampung	4 – 5 Mar. '78	60	2	
19.	Meeting of HNSI, Lampung	7 – 9 Mar. '78	50	3	
			970	73	

Source : Lampung Tani Makmur Project.

Table 2 : Training and Course in Teginenong Centre, F.Y. 1978/1979

No.	Kind of Training/Course	D a t e	Participant (persons)	Duration (days)	Conducted by
1.	Course of simple trial worker	11 – 13 Sep. '78	45	3	Bureau of Production/FAO
2.	Coaching of citrus rehabilitation	18 – 20 Sep. '78	35	3	– ditto –
3.	Training of trial worker	9 – 11 Oct. '78	56	3	– ditto –
4.	Course of upland rice	1 – 2 Nov. '78	15	2	– ditto –
5.	Course of Pest Controle Unit	12 – 15 Nov. '78	18	3	Bureau of Plant Protection
6.	Course of water pump	4 – 6 Dec. '78	58	3	– ditto –
7.	Meeting of PPLs.	1 – 3 Feb. '79	50	3	Bureau of Extension
8.	Training of PPL/workers	14 – 28 Feb. '79	39	14	SPMA (agric. high school)
9.	Visit of simple trial worker from West Java	12 – 16 Mar. '79	28	4	Bureau of Production/FAO
10.	Course of PPMs & Extension Workers	19 – 21 Mar. '79	50	3	Bureau of Extension
11.	Course of seed	23 – 24 Mar. '79	22	2	Bureau of Production
12.	Course of Agric. Machineries.	26 – 27 Mar. '79	18	2	– ditto –
			434	45	

S o u r c e : Lampung Tani Makmur Project.

Table 3 : Training and Course conducted in Toginenong Centre, 1979/1980

No.	Kind of Training/Course	Date	Participant (persons)	Duration (days)	Conducted by
1.	Seed and Plant Protection Course	June 11 – 13, '79	45	3	
2.	Plant Protection Training	June 27, '79	15	1	
3.	Visit of BLPP Muara Dua	July 14 – 15, '79	40	2	BLPP Muara Dua/Kanwil I Pert. Prop. Lampung.
4.	Course of upland crop trial (FAO) I	Sep. 20 – 22, '79	30	3	Biro Produksi/FAO
5.	Course of upland crop trial (FAO) II	Sep. 24 – 26, '79	30	3	Biro Produksi/FAO
6.	Visit of BLPP Muara Dua	May 3, '79	40	1	BLPP Muara Dua
7.	Training of AMPI Leaders	Oct. 1 – 4, '79	50	4	G O L K A R
8.	Visit of BLPP Martapura	Oct. 19 – 20, '79	20	2	BLPP Muara Dua, Martapura
9.	Training of Adapted Technology Trial	Nov. 1 – 3, '79	23	3	Biro Produksi
10.	Training of seed production (Ad hoc)	Oct. 19 – 26, '79	26	8	Tani Makmur
11.	Training of Agric. Machinery& Equipment (Ad hoc)	Nov. 5 – 10, '79	26	6	Tani Makmur
12.	Meeting of Key Farmers	Nov. 16 – 18, '79	40	3	Biro Penyuluhan
13.	Training of Plant Protection Worker (Ad hoc)	Nov. 19 – 24, '79	26	6	Tani Makmur
14.	Training of PPL I	Dec. 7 – 20, '79	30	15	Biro Penyuluhan
15.	Training of PPM	Jan. 8 – 22, '80	30	15	Biro Penyuluhan
16.	Training of farm management (Ad hoc)	Jan. 23 – 29, '80	26	7	Tani Makmur
17.	Course of downy mildew disease	Feb. 4, '80	30	1	Biro Penyuluhan & Ciba Geigy
18.	Meeting of PPM and PPS	Feb. 11 – 12, '80	30	2	Biro Penyuluhan
19.	Training of Post Harvest Worker (Ad hoc)		26	5	Tani Makmur

Table 4 : Result of Training Participants in Japan
1977/1978 – 1979/1980.

No.	Name of Participant	Kind of Training	Period
1	2	3	4
1.	Ir. Murdani S.	Control of Rice Disease and Insects Pests	May '77 – Nop. '77
2.	Ir. Sarimin HP	Individual Training on soil and fertilizers (Upland & Lowland)	Oct. '77 – Mar. '78
3.	Ir. Amiruddin Inoed	Agr. Extension Service	Apr. '77 – July '78
4.	Ir. Masdulhaq Ishaq	Rice Cultivation and Its Extension	Mar. '78 – Dec. '78
5.	Wattoni M. Zahri	Rice Production Mechanization	Mar. '78 – Dec. '78
6.	Ir. Jupri Amin	Agricultural Extension Service	Apr. '78 – July '78
7.	Ir. Jama'an	Control of Rice Disease & Insect Pests	Mei '78 – Dec. '78
8.	Ir. Wahyu Subandrio	Agricultural Machinery Maintenance and Repair	June '78 – Dec. '78
9.	Ir. Kusnadi Affandi	Observation on Agricultural Things in Japan	June '78 – July '78
10.	Ir. Soehendi M.	– ditto –	June '78 – July '78
11.	Ir. M. Nasir Umar	Agricultural Cooperative	Sep. '78 – Dec. '78
12.	Ir. Zaenal AE	Rice Production Mechanization	Mar. '79 – Dec. '79
13.	Drs. Subki E Harun	Observation on Agricultural Situation in Japan	Sep. '79 – Oct. '79
14.	Pratiknyo T.	– ditto –	Sep. '79 – Oct. '79
15.	Nana Halim	Agricultural Extension Service	Apr. '79 – Dec. '79
16.	Ir. Joko Umar Said	Control of rice disease & insect pests	July '79 – Dec. '79
17.	Ir. Trisbani Arief	Rice Cultivation and Its Extension	Feb. '80 – Dec. '80
18.	Salam ZA	Rice Production Mechanization	Feb. '80 – Dec. '80
19.	Abd. Hamid Abd.	Fotography	Feb. '80 – Apr. '80
20.	Supiyono	Agr. Extension Service	Mar. '80 – July '80
21.	Ir. Nenny Karzuki	Agr. Cooperative	May '80 – June '80
22.	Almizar Abbas	Agr. Machinery Maintenance and Repair	June '80 – Dec. '80

S o u r c e : Lampung Tani Makmur Project.

Table 5 : Soil Properties of Field Trial 1978/1979

Kecamatan	Desa	depth cm	kind of soil	pH H_2O	pH KCl	T-N %	T-C %	C/N	CEC CaO	EX. BASE mg/100 g MgO	EX. BASE mg/100 g KgO		Abs. Coe			incubate p mg	incubate N mg
Ketibung	Tanjung Mukti	0–19	lat	7.45	6.20	.104	.83	8.0	7.60	59	8	6.6	35	933	168	2.3		
	"			7.15	5.90	.074	.47	4.4	6.14	59	12	4.1	46	1002	84	0.5		
Kedondong	Tempel Rejo	0–20	lat	6.81	5.60	.140	.80	5.7	13.36	81	11	6.1	27	1442	56	0.5		
	"			6.70	5.20	.175	1.02	5.8	11.36	85	19	7.8	37	1382	168	0.3		
	"	0–10		6.85	5.21	.188	1.22	6.4		96	17	13.9		1428	224	0.4		
	"	10–20		6.70	5.20	.120	.85	7.0	10.20	64	27	5.7	37	1359	420	0.5		
	"	20–30		6.40	4.90	.089	.65	7.3	12.04	80	12	4.3	30	1359	28	0.4		
	Wargo mulyo	0–		6.15	4.50	.084	.52	6.1	11.92	85	31	3.1	39	466	308	4.5		
Kekampung	Hargo Mulyo	0–14	pod	5.65	4.45	.115	1.02	8.8	6.96	43	23	5.1	40	1176	168	0.4		
	"			6.20	4.90	.092	.59	6.4	5.84	48	15	3.1	43	1062	224	0.2		
Way Jepara	Labuhan Ratu	0–13	pod	5.40	4.35	.146	1.74	11.8	6.91	37	19	7.6	35	672	196	0.6		
				5.30	4.15	.117	.96	8.2	6.24	27	8	6.7	24	865	28	0.5		
Rumbia	Rono Basuki	0–15	pod	5.70	4.35	.207	1.89	9.1	6.08	21	12	1.4	23	1566	168	0.9		
	"			5.30	4.35	.076	.61	8.0		27	12	0.8		995	112	0.9		
Bangun Rejo	Sinar Sejutih	0–19	pod	5.90	4.60	.176	1.66	9.4	10.96	48		6.9		1291	196	0.8		
	"	0		5.10	4.05	.118	.85	7.2	5.84	37	8	2.2	30	993	280	0.5		
Abung Selatan	Suka maju	0–16	pod	5.30	4.10	.176	2.47	14.0	12.64	37	15	5.3	18	1428	84	1.4		
	"			4.90	4.00	.091	.78	8.6	5.44	27	12	3.4	30	833	168	0.4		
Baradatu	Setia negara	0–16	pod	4.95	4.00	.174	1.74	10.0	7.32	40	12	3.3	29	1355	252	0.9		
	"			4.65	3.95	.137	.94	6.9	5.44	32	15	1.4	35	1268	84	0.3		
Penegahan	Klaton		lat	5.70	5.20	.188	1.43	7.8	18.00	107	23	12.3	29	1493	308	0	2.7	24.3
				5.50	5.10	.191	1.98	10.4	18.08	91	58	11.0	35	1543	224	0.8	3.1	19.5
Kedondong	Banjar Negri		lat	5.91	5.30	.173	1.61	9.3	10.32	48	35	10.4	36	1154	308	0.2	5.2	12.7
Pardasuka	Wargo mulyo		all	5.90	5.30	.154	1.19	7.7	10.08	43	15	8.2	25	1475	448	0.6	10.7	17.7
Way Jepara	Braja Asri		pod	5.55	4.85	.190	1.13	5.9	15.60	48	23	5.5	19	1222	42	1.0	3.7	26.7
				5.90	4.25	.148	1.31	8.8	6.40	37	11	2.3	30	1218	350	0.9	2.6	21.9
	Braja Indah		pod	5.90	5.10	.220				69	27	13.5		1085	192	0.9	1.5	17.6
				5.80	5.01	.248				75	27	9.9		638	126	1.1	1.5	16.6
				6.10	5.02	.206				75	27	11.8		1268	70	0.8	3.8	17.4
	Totoketon					.143	.093	6.5	5.44	27	15	1.9	33	1039	194		1.2	18.6

Table 6 : Soil Properties of Trial Field
(1979 / 1980)

	Desa	Kecamatan / Kabupaten	Depth (Cm)	Kind of soil	Soil pH H2O	Soil pH KCL	T-N (%)	T-C (%)	C/N	CES me	Ex. base mg/100 g.				
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Trans Tanjungan	Ketibung (L.S)	0 – 17	Lat.	7.10	6.20	0.112	0.79	7.05	7.40	52	10	7.1	2.60	942
			17+		6.85	5.94	0.078	0.45	5.77	6.80	52	13	5.9	0.80	998
2.	Trans Budidaya	Ketibung (L.S)	0 – 21	Lat.	7.20	6.40	0.104	0.85	8.17	7.10	49	12	7.9	2.44	895
			21 +		6.80	5.85	0.085	0.62	7.29	6.60	47	15	6.2	0.76	898
3.	Tempelrejo	Kedondong (L.S)	0 – 22	Lat.	6.80	6.50	0.120	0.80	5.67	10.20	96	17	5.7	1.30	1258
			22+		6.40	5.10	0.089	0.65	7.30	9.80	84	19	4.3	0.45	1340
4.	Gunung Terang	Pardasuka (L.S)	0 – 18	Lat.	7.20	6.15	0.130	0.84	6.46	10.30	63	18	4.8	2.50	820
			18+		6.90	5.85	0.075	0.35	4.67	7.10	60	15	4.2	0.94	798
5.	Sukosari	Kalirejo (L.T)	0 – 16	Pod.	6.10	5.40	0.102	0.78	7.65	8.15	48	13	5.1	1.84	840
			16+		5.60	4.95	0.065	0.42	6.46	6.92	48	12	6.2	0.92	898
6.	Tanjung Jaya	Bangunrejo (L.T)	0 – 19	Pod.	6.40	5.80	0.108	0.84	7.78	9.20	39	14	7.40	1.88	990
			20+		5.70	4.85	0.072	0.56	7.78	7.40	43	13	8.1	0.74	870
7.	Sinar Sari	Kalirejo (L.T)	0 – 20	Pod.	6.25	5.90	0.145	0.72	4.97	8.80	49	15	8.2	1.87	975
			20+		5.65	4.80	0.042	0.48	11.43	7.45	47	13	7.9	0.48	1024
8.	Sinar Seputih	Bangunrejo (L.T)	0 – 22	Pod.	6.00	5.10	0.154	0.92	5.97	9.20	41	14	8.8	1.42	1045
			22+		5.20	4.60	0.058	0.44	7.59	7.10	38	12	6.4	0.34	1120
9.	Sinar Luas	Bangunrejo (L.T)	0 – 18	Pod.	5.80	5.00	0.145	0.78	5.38	7.40	38	15	7.7	1.83	998
			18+		4.95	4.60	0.034	0.32	9.41	6.25	38	15	7.1	0.92	1042
10.	Adi Luwih	Sukoharjo	0 – 21	Pod.	6.25	5.10	0.198	0.88	4.44	8.75	41	13	8.9	1.67	1242
			21+		5.20	4.70	0.081	0.41	5.06	7.00	43	15	7.8	0.72	1381

11. Bulusari .....

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
11. Bulusari	Gunung Sugih (L.T)	0 – 14	Pod.	6.20	5.20	0.190	1.06	5.58	6.04	22	11	6.8	1.20	975
		14+		5.40	4.80	0.058	0.61	10.52	5.98	21	12	5.1	0.58	1042
12. Sri Kencono	Rumbia (L.T)	0 – 13	Pod.	5.80	4.65	0.188	1.44	7.66	7.02	42	13	7.1	1.43	1025
		13+		5.20	4.15	0.056	0.38	6.79	6.63	43	13	8.4	0.48	1143
13. Hargomulyo	Sekampung (L.T)	0 – 18	Pod.	6.15	5.95	0.199	1.06	5.33	8.82	52	17	8.4	1.40	994
		18+		5.70	5.20	0.082	0.62	7.56	6.78	41	14	7.9	0.55	983
14. Asahan	Jabung	0 – 26	Rat.	7.10	6.80	0.196	1.02	5.20	9.28	33	12	5.8	0.82	840
		26+		6.75	6.35	0.084	0.74	8.81	8.74	30	11	6.1	0.23	900
15. Labuhan Ratu	Way Jepara (L.T)	0 – 17	Pod.	5.50	4.45	0.114	0.92	8.07	11.21	49	11	7.2	0.60	1020
		17+		5.40	4.20	0.056	0.54	9.64	10.78	49	12	6.1	0.36	1120
16. Dono Mulyo	Sukadana (L.T)	0 – 18	Pod.	6.10	5.75	0.108	0.88	8.15	12.03	38	13	9.2	0.50	990
		18+		5.80	5.60	0.042	0.61	14.52	12.00	36	12	6.3	0.35	890
17. Sukamaju	Abung Selatan (L.U)	0 – 16	Pod.	5.85	5.10	0.099	0.72	7.27	9.94	41	9	7.8	0.46	1150
		16+		4.90	4.70	0.045	0.41	9.11	10.72	42	8	5.5	0.25	1140
18. Semuli Raya	Abung Selatan (L.U)	0 – 17	Pod.	5.90	5.00	0.114	0.78	6.84	8.84	38	10	6.6	0.58	1320
		17+		4.80	4.70	0.082	0.43	5.24	8.89	36	9	2.4	0.15	1280
19. Kembang Tanjung	Abung Selatan (L.U)	0 – 15	Pod.	5.70	4.85	0.122	0.86	7.05	9.77	21	13	7.8	0.50	1130
		15+		5.10	4.20	0.068	0.51	7.50	8.98	23	14	4.6	0.20	1140
20. Tanjung Iman	Abung Selatan (L.U)	0 – 18	Pod.	5.55	4.80	0.102	0.850	8.33	11.58	60	11	6.3	0.4	1148
		18+		5.15	4.25	0.065	0.078	12.00	6.45	42	10	4.2	0.5	1282
21. Bali Sadar	Banjit (L.U)	0 – 23	Pod.	5.00	4.50	0.094	0.74	7.87	8.54	54	9	7.1	0.7	988
		23+		4.70	4.10	0.052	0.38	7.31	5.72	43	8	4.8	0.6	1047
22. Campur Asri	Baradatu (L.U)	0 – 19	Pod	5.50	4.70	0.112	0.75	6.70	9.44	65	8	8.3	0.8	934
		19+		4.80	4.60	0.074	0.48	6.49	6.72	59	9	6.2	0.5	982
23. Satia Negara	Baradatu (L.U)	0 – 18	Pod.	5.70	4.75	0.114	0.94	8.25	8.82	72	13	11.3	0.7	844
		18+		5.00	4.60	0.068	0.58	8.53	6.74	58	11	10.0	0.8	958
24 Klaten	Penengahan (L.S)	Top.	Lat.	5.90	4.70	0.188	1.44	7.66	18.00	64	26	16.5	0.9	1420
										25. Pasuruhan				

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
25.	Pasuruhan	Penengahan (L.S)	Top.	Lat.	6.10	5.40	0.174	1.16	6.67	18.00	58	42	15.7	0.6	1480
26.	Gunung Sari	Kedondong (L.S)	Top	Lat	5.80	5.00	0.173	1.18	8.86	10.30	54	31	10.4	0.5	1170
27.	Wargo Mulyo	Pardasuka (L.S)	Top	All	6.20	5.20	0.165	1.04	6.30	10.40	62	15	8.2	0.7	1284
28.	Campang	Talang Padang (L.S)	Top	Lat	6.00	5.15	0.182	1.15	6.32	10.35	79	12	15.5	0.8	1258
29.	Negeri Ratu	Kota Agung (L.S.)	Top	Lat	5.80	5.10	0.178	1.21	6.80	14.40	80	16	18.3	1.0	1240
30.	Hargo Mulyo	Sekampung (L.T.)	Top	Pod	6.30	5.00	0.142	1.22	8.59	14.20	72	21	6.7	0.9	1222
31.	Batang Harjo	Batang Hari (L.T.)	Top	Pod.	6.00	5.20	0.153	1.25	8.17	13.50	58	21	9.4	0.7	1218
32.	Bannjoto	Batang Hari (L.T.)	Top	Pod	6.20	5.50	0.123	0.92	7.48	16.00	104	24	13.4	0.9	1381
33.	Totoketon	Punggur (L.T.)	Top	Pod	6.00	5.50	0.194	0.99	5.10	17.30	98	58	10.2	0.7	1482
34.	Rukti Harjo	Seputih Raman (L.T.)	Top	Pod	6.00	5.15	0.112	1.14	10.18	15.40	72	35	8.9	0.8	1360
35.	Rejobinangun	Raman Utara (L.T.)	Top	Pod	5.80	4.90	0.154	1.23	7.99	16.83	84	23	8.2	0.6	1172
36.	Braja Asri	Way Jepara (L.T.)	Top	Pod	6.20	5.15	0.172	1.45	8.43	17.45	56	42	13.5	0.5	1346
37.	Sukapura	Sumber Jaya (L.U)	Top	Lat.	5.95	4.80	0.145	1.62	11.17	15.50	72	27	9.9	0.8	1133
38.	Pujodadi	Pardasuka	Top	All	6.10	4.55	0.152	1.14	7.5	12.37	68	51	8.7	0.9	146

Table 7: Pest and Disease Control Equipment Delivered for Protection Brigade.

No.	Brigade Unit of Plant Protection	Kind of equipment	Brand	Amount	Remark
1.	Province	– Hand sprayer SA–10S	Arimatsu	36	For Protection
		Power sprayer US – 34	,,	6	Brigade Team
		Mist blower MD–40DE	,,	3	
		Plastic poil	,,	3	
		Racumin	,,	100 kg	
2.	Province	– Power sprayer CS – 34 – MK	Arimatsu	3	For prize winer of INSUS group, Planting season 1979
3.	South Lampung	– Hand sprayer SA–10S	Arimatsu	36	For Protection
		Power sprayer US–34	,,	6	Brigade Team
		Mist blower MD–40DE	,,	3	
		Plastic poil	,,	3	
		Racumin	,,	100 kg	
4.	Central Lampung	– Hand sprayer SA–10S	Arimatsu	36	For Protection
		Power sprayer US–34	,,	6	Brigade Team
		Mist blower MD–40DE	,,	3	
		Plastic poil	,,	3	
		Racumin	,,	100 kg	
5.	North Lampung	– Hand sprayer SA–10S	Arimatsu	36	For Protection
		Power sprayer US–34	,,	6	Brigade Team.
		Mist blower MD–40DE	,,	3	
		Plastic poil	,,	3	
		Racumin	,,	100 kg	

Source : Lampung Tani Makmur Project.

Table 8: List of Farm Machineries and Equipments Distribution on Lowland Dem-farms and Its Condition

No.	KECAMATAN/DESA	HAND TRAK-TOR	HAND SPRA-YER	MIST BLO-WER	POWER SPRA-YER	PEDAL THRESHER	AUTOMAT THRESHER	PLANTER	WINNO WER	WINNO-WER	RICE MILL	CORN SHEL-LER	SCALE	ARIT	LAN-DAK	AREA (HA)	PRODUC TION (KG/HA)
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
I.	BATANG HARI:																
1.	Bumi Harjo	60% 1pc	60% 3pc	60% 1pc		75% 1pc							75% 1pc	75% 2pc		6,5	4500/ha
2.	Bumi Mas		60% 1pc			60% 2pc			70% 1pc				70% 1pc	60% 4pc hil. 1pc	damaged 10 pc	17	6500/ha
3.	Tlogorejo		50% 2pc			75% 1pc							70% 1pc	60% 4pc	40% 4pc	17	6000/ha
4.	Banar Joyo	60% 1pc	60% 2pc damaged 2pc			70% 1pc			70% 1pc				70% 1pc	PPL 3pc	damaged 14pc	39,5	6500/ha
5.	Bale Rejo		60% 1pc			75% 1pc			80% 1pc				80% 1pc	70% 5pc	damaged 1pc	?	6500/ha
II.	SEPUTIH RAMAN :																
6.	Rama Utama	60% 1pc	75% 5pc											80% 8pc	50% 24pc	22,5	4500/ha
7.	Rejo Basuki	70% 1pc	80% 2pc				80% 1pc							90% 4pc	50% 10pc	?	?
8.	Rama Gunawan	60% 2pc	60% 4pc		60% 1pc		75% 1pc		80% 1pc					70% 8pc	70% 16pc	?	5000/ha
9.	Rejo Asri	50% 1pc	75% 4pc											90% 8pc	70% 14pc	18,25	4500/ha
10.	Rukti Harjo		70% 2pc	damaged 1pc										? 6pc	? 9pc	14,50	3000/ha
III.	RAMAN UTARA :																
11.	Rejo Binangun	60% 1pc	70% 4pc				70% 1pc		75% 1pc				80% 1pc	70% 4pc	damaged 10pc	20	7300/ha
12.	Ratna Dava		70% 2pc						70% 1pc						damaged 12 pc	20	3000/ha
13.	Raman Ajl		70% 4pc												damaged 8 pc	?	5500/ha
14.	Rukti Sediyo	70% 1pc	80% 4pc						70% 1pc				70% 1pc	60% 8pc	60% 16pc	?	5100/ha

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
IV. METRO																
15. Ganjar Agung					75% 1pc							75% 1pc	used 3pc		23	4000/ha
16. Tejo Sari	70% 1pc	60% 3pc			60% 1pc							70% 1pc	60% 5pc	damaged 2pc	25	5000/ha
17. Margo Rejo	damaged 1pc	60% 3pc			70% 1pc			70% 1pc				70% 1pc	70% 5pc	damaged 5pc	25	4000/ha
18. Hadi Mulyo	75% 1pc	60% 1pc 70% 2pc	70% 1pc		70% 1pc			70% 1pc		new 1pc		75% 1pc	70% 4pc damaged 1pc	60% 6pc damaged 2pc	27	4600/ha
19. Yosodadi		60% 1pc			70% 1pc							70% 1pc			21,5	7000/ha
V. PURBOLINGGO:																
20. Totomulyo		70% 1pc damaged 1pc												damaged 12pc	26	4500/ha
21. Totoharjo	70% 1pc	70% 4pc											50% 5pc	45% 11pc damaged 2pc	27	3000/ha
22. Taman Fajar	70% 1pc	75% 3pc														
23. Tanjung Kesuma		75% 4pc											50% 5pc	60% 3pc damaged 7pc	27 23,25	4500/ha 3000/ha
VI. SUKARAJA NUBAN:																
24. Sukaraja Nuban		60% 5pc			70% 1pc											
25. Purwosari	1pc B.S. 2pc	3pc		1pc	2pc							70% 1pc 1pc	used 5pc 5pc	13pc	20 24	2500/ha 5000/ha
26. Kedaton		70% 3pc										70% 1pc		damaged 8pc	27	5000/ha

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
VII. SEKAMPUNG :																
27. Sumbergede		damaged 1pc			t.p. 1pc							5pc	2pc	20	2500/ha	2500/ha
28. Hargo Mulyo	damaged 1pc	60% 2pc sone 2pc			1pc			1pc			1pc	5pc	5pc	23	4000/ha	
29. Wonokarto		2pc										5pc	5pc	23	?	
30. Sidodadi		damaged 1pc sone 2pc						1pc			1pc	5pc	12pc	24,5	4000/ha	
VIII. TRIMURJO :																
31. Purwodadi	60% 1pc			60% 1pc							70% 1pc			26	?	
32. Purwoadi	had. 1pc	70% 1pc						90% 1pc			90% 1pc	60% 10pc	50% 2pc	27	6750/ha	
33. Tempuran	60% 1pc	70% 1pc			70% 2pc	80% 1pc		80% 1pc	new 1pc		70% 1pc	40% 2pc		27	2500/ha	
IX. PUNGGUR :																
34. Totokaton	70% 8pc	60% 2pc		60% 1pc	70% 2pc	damaged 2pc		70% 2pc	1pc		70% 2pc	10pc	32pc	100	5000/ha	
35. Ngestirahayu		50% 1pc			70% 1pc						70% 12pc	20% 3pc			4500/ha	
36. Astomulyo		50% 4pc													4000/ha	
37. Sumber Rejo	70% 1pc	70% 1pc			70% 1pc			70% 1pc			70% 1pc	50% 1pc			4500/ha	

Table 9: List of Farm Machineries and Equipments

No.	Kecamatan/Desa	Hand Traktor	Hand Sprayer	Mist Blower	Power Sprayer	Pedal Thresher	Automat Thresher	Winnower	R.M.U.	Corn Sheller	Scale	Arit	Area	Production Kg/Ha
1	2	3	4	5	6	7	8	9	10	11	12	13	14	14
I.	NATAR :													
1.	Sukabandung	60%	50%	new		70%		70%		70%		50%	132	2500/Ha
2.	Haduyang		70%										46,25	2200/Ha
3.	Merak Batin										70%		45	2500/Ha
4.	Gedung Gumanti		50% 1pc, 60% 1pc			70%							127	3500/Ha
5.	Kresnowidodo		new 1pc (50%)										105	1800/Ha
6.	Bumi Agung		60%										50	2000/Ha
7.	Sukadamai		new, 50% 5pc											
II.	KEDATON													
8.	Margo Agung		50% 1pc, 2pc						90%				80	1600/Ha
9.	Margo Dadi		new 2pc										100	3000/Ha
III.	GEDUNG TATAAN													
10.	Halangan Ratu	60%											77,5	800/Ha
11.	Kagungan Ratu	100%	50% 1pc, 60% 2pc										67	2500/Ha
12.	Pejambon		50% 1pc										71	1800/Ha
IV.	SUKOHARJO:													
13.	Waringin Sari													
14.	Bandung Baru													
15.	Enggal Rejo													
16.	Adi Luwih													
V.	GUNUNG SUGIH :													
17.	Sidokerto		60%	60%	60%	60%		70%		70%	70%		140	1000/Ha
18.	Bulusari	60%	60%			60%		70%	70%	70%		70%	145	2500/Ha
19.	Rengas		2 damaged new								70%		25	2000/Ha
20.	Bumi Rahayu	60%	60%								70%		132	700/Ha
21.	Bumi Raharjo	60%	60%	60%		50%		60%			70%		143	2200/Ha
22.	Terb. Subing	60%	60%	60%				60%			60%		141	2650/Ha
23.	Terb. Agung													
24.	Kesumadadi	60%	60%					70%			70%		110	2000/Ha
25.	Sukajadi		60%										105	3000/Ha
26.	Gunung Sugih Kamp.	70%	60%					60%			70%		114	2500/Ha
27.	Sidoworas		60%	New									179	1000/Ha

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VI.	BANGUN REJO :									70%			150	1250/Ha
28.	Tanjung Jaya		50% 3pc, 60% 5pc										100	700/Ha
29.	Sri Pendowo		40% 5pc, 60% 1pc											
30.	Sidodadi		3pc damaged										45	600/Ha
			2pc damaged											
31.	Sidorejo		4pc damaged										120	1200/Ha
			4pc 60%											
32.	Sukanegara		3pc damaged,										100	4000/Ha
			3pc 50%										60	2500/Ha
33.	Bangun Rejo		60%											
34.	Sinar Seputih		1pc damaged,										100	2000/Ha
			8pc 80%											
VII.	KALIREJO :												110	3000/Ha
35.	Watu Agung		60%										45	2600/Ha
36.	Sinar Sari		75%											
37.	Ponco Warno		50% 2pc, 60% 1										40	1700/Ha
			damaged										48	700/Ha
38.	Sri Basuki		60%										70	1800/Ha
39.	Bolorejo		60%										30	2000/Ha
40.	Sukasari		75%											
VIII.	TERBANGGI BESAR :													
41.	D.K. Rahayu													
42.	Halangan Ratu											25%	100	3000/Ha
43.	Harapan Rejo		2pc 60%, 1 damaged											
44.	Endang Rejo		1pc 70%, 4pc	1 pc damaged,								25%	100	2500/Ha
			damaged	1 pc 60%									100	500/Ha
45.	Adi Jaya		60%					60%				70%	171,5	1100/Ha
46.	Fajar Asri	70%	70%					70%					140	2000/Ha
47.	Simpang Agung		75% 7pc, 60% 3pc	75%									100	2000/Ha
48.	Nambah Dadi		60%			60%					75%		182,5	2800/Ha
49.	Dono Arum		70%										130	1500/Ha
50.	Selusuban		70%											

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
IX.	SUKADANA :													
51.	Donomulyo		70%										110	2300/Ha
52.	Sukaraja Nuban		50% 1pc, 60% 3pc										90	1500/Ha
53.	Bumi Jawa	70%	2pc damaged, 2pc 70%										65	2500/Ha
54.	Sukadana Ilir	60%	50%										145	2500/Ha
55.	Muara Jaya		30% 3pc, 75% 1pc										73,75	2000/Ha
56.	Gedung Dalem													

Tanjungkarang, November 1979.

MENGETAHUI:

Expert Alat-Alat Mesin Pertanian,

MR, S. SUCAWARA.

Counterpart Alat-Alat Mesin Pertanian;

IR. WAHYU SUBANDRIO.

Bagian Alat-Alat Mesin Pertanian;

ALMIZAR ABBAS.

Table 10 : List of Equipments at the Workshop of Lampung Tani Makmur Project 1973 until 1980

NO.	ITEMS	ARRIVED	UNIT	TOTAL	NOTE
1	2	3	4	5	6
1.	Air Compressor IWATA TP 22 N	May 73	SET	1	Workshop
2.	Hydraulic Press CAP: 50 Ton Banzai HP–50E	Sept. 76	"	1	ni Makmur Lampung
3.	Cutter Of Lathe FUJIMI 2712	–„–	„	1	
4.	Bench Drill BANZAI BE 3602	–„–	„	1	
5.	Welder Portable DENNYO HENDY ACD – 2306	–„–	„	1	
6.	Acetylene Gas Generator BANZAI 5–15–K	–„–	„	1	
7.	Wood Cutter BANZAI 5600 E	–„–	„	2	
8.	Tool Cabinet BANZAI D–300	–„–	„	1	
9.	Air Compressor BANZAI CTE222N	Agust. 77	„	1	
10.	Screw Driver BANZAI 75 MM	–„–	PCS	2	
	–„– 100 MM	–„–	„	2	
	–„– 150 MM	–„–	„	2	
	–„– 200 MM	–„–	„	2	
11.	Stubby Screw Driver BANZAI 6MM	–„–	„	2	
12.	Stubby Screw Driver BANZAI No. 1 (+)	–„–	„	2	
13.	Stubby Screw Driver BANZAI NO. 2. 4. 5. MM	–„–	„	2	
14.	Box Screw Driver BANZAI Sizer 170 mm s/d 250 mm	–„–	„	8	
15.	Driver Set S–112 A	–„–	„	1	
16.	Impack Driver Set BANZAI 2800	–„–	„	1	
17.	Socket Wrench Set 35 – 63 mm	–„–	„	1	
	–„– 9 – 19 mm	–„–	„	1	
	–„– 20 M ½ Unch	–„–	„	1	
18.	Double Off Set Box, Wrench Set BT – 62 Long	–„–	„	1	
	BT – 52 Long	–„–	„	1	
19.	Adjustable Wrench Size 300 MM	–„–	„	1	
	–„– Size 375 MM	–„–	„	1	
	–„– Size 150 MM	–„–	„	1	
20.	Adjustable Wrench	–„–	„	1	

1	2	3	4	5	6
21.	Stud Remover ½ Sq 19 MM	Ags. 1977	SET	2	Workshop
22.	Hexagon Wrench AW–70	–„–	„	2	–„–
23.	Water pump pliers–1	–„–	„	2	–„–
24.	Vice plier Ag–7	–„–	„	2	–„–
25.	Snap ring plier S–1	–„–	„	2	–„–
26.	Piston ring tool	–„–	„	2	–„–
27.	Vice Vv–125	–„–	„	1	–„–
	Vv–250	–„–	„	1	–„–
28.	Combination plier Type H 26–H–28	–„–	„	2	–„–
29.	Diagonal catting plier	–„–	„	4	–„–
30.	Flut chisel Type C–1	–„–	„	1	–„–
	Type C–2	–„–	„	1	–„–
	Type C–3	–„–	„	1	–„–
	Type C–4	–„–	„	1	–„–
	Type C–5	–„–	„	1	–„–
31.	Center punch Type. 5	–„–	„	4	–„–
32.	Fisure punch Type 4	–„–	„	1	–„–
	10	–„–	„	1	–„–
33.	Cutter punch Type 5	–„–	„	1	–„–
	10	–„–	„	1	–„–
34.	Pipe Cutter TFP. 200 W	–„–	„	1	–„–
35.	Hand drill	–„–	„	2	–„–
36.	Efectrik drill	–„–	„	2	–„–
37.	Drill Chuck DG–b	–„–	„	5	–„–
38.	Straight shank Twist	–„–	„		
	– Drill set HDS 25 MM	–„–	„	2	–„–
	– Drill set HDS 29 MM	–„–	„	2	–„–
39.	Adjustable reamer Type R 46	–„–	„	2	–„–
40.	File set	–„–	„	2	–„–
41.	Bench Grinder EBX	–„–	„	2	–„–
42.	Grinder stone EBX	–„–	„	20	–„–
43.	Electric Hand Drill Type LDV	–„–	„	2	–„–
44.	Plastic hammer 25 gram	–„–	„	10	–„–
45.	Electric disk grinder – Type PDA 100 A	–„–	„	2	–„–
46.	Tap and die Type M 420	–„–	„	1	–„–
47.	Test hammer 130 Gr	–„–	„	2	–„–
	450 Gr	–„–	„	2	–„–
48.	Cost Iron anvil cap 50 Kg	–„–	„	2	–„–
49.	Por Table Hydrolic jack – MH–10 cap 10 T	–„–	„	10	–„–

1	2	3	4	5	6
50.	Por Table screw jack cap 2T	Ags 1977	SET	10	Workshop
51.	Hydraulic gauge jack MH – 500 M cap 5 ton	–„–	„	2	–„–
52.	Out side Micrometer 1525 HB	–„–	„	1	–„–
53.	Dial Indikator	–„–	„	2	–„–
54.	Magnetic stand HB 13	–„–	„	2	–„–
55.	Cylinder gauge BC–30	–„–	„	1	–„–
56.	Thicnessgauge 172 MB	–„–	„	9	–„–
57.	Out Side Cliper	–„–	„	3	–„–
58.	Inside Cliper	–„–	„	3	–„–
59.	Steel Square	–„–	„	2	–„–
60.	Torque wrench 460 F	–„–	„	1	–„–
61.	Hand Tacho Meter HL	–„–	„	2	–„–
62.	Val aper Meter EL 64	–„–	„	1	–„–
63.	Tire Pressure Gauge	–„–	„	4	–„–
64.	Nozzele Tester DT–60	–„–	„	1	–„–
65.	Oil Filter Wrench NT–83 A	–„–	„	1	–„–
66.	Spray gun with container– W–613–S	–„–	„	2	–„–
67.	Hand Prees	–„–	„	1	–„–
68.	Caddy tool stand RC–102	–„–	„	5	–„–
69.	Valve Lifter VI. 500	–„–	„	1	–„–
70.	Double paced sled.	–„–	„	4	–„–
71.	Coos Pin wrench T–126 MB	–„–	„	5	–„–
72.	Tool set CV–301	–„–	„	4	–„–
73.	Straight Edge	–„–	„	1	–„–
74.	Steel Projector	–„–	„	1	–„–
75.	Drum pener spaner	–„–	„	2	–„–
76.	Grease gun	–„–	„	5	–„–
77.	Wire Bouh	–„–	„	20	–„–
78.	Tool Tray	–„–	„	10	–„–
79.	Engine Cleaning gugun	–„–	„	2	–„–
80.	Air Blow gun AC. A	–„–	„	1	–„–
81.	Part wasing stand AC–A– WS–25	–„–	„	1	–„–
82.	Steam cleaner SW 250 K	–„–	„	1	–„–
83.	Iron Bench lever	–„–	„	1	–„–
84.	Steel Rude	–„–	„	1	–„–
85.	Steel Halding Rulle	–„–	„	3	–„–
86.	Conver Measure VR 2	–„–	„	5	–„–
87.	Varmier caliper N–20	–„–	„	2	–„–
	N–30	–„–	„	2	–„–

1	2	3	4	5	6
88.	Cutting Grinder H–12 A	Ags 1977	SET	1	Workshop
89.	Piston vice	–„–	„	1	–„–
90.	Piston ring Compressor	–„–	„	1	–„–
91.	Carpenters tool MT–1200	–„–	„	2	–„–
92.	High pressure guse pump – KG–KH. Banzai	Agst 1978	„	2	–„–
93.	High pressure grease pump– K2–KH	–„–	„	2	–„–
94.	Stand Type oil drain model OD. 100	–„–	„	1	–„–
95.	Oil Syring OS. 1000	–„–	„	2	–„–
96.	Tire Pressure Gauge T–19 D.T–20D	–„–	„	2	–„–
97.	Air Impackt wrench AW–2000 Banzai	–„–	„	1	–„–
98.	Balknkawk prottopower TZ–20 Banzai	–„–	„	1	Material
99.	Iron anwil AN 70	–„–	„	2	–„–
100.	Case Iron sweg Block ISB–45	–„–	„	2	–„–
101.	Socket wrench 300 M	–„–	„	2	–„–
102.	Cutting grinder HCW–12HT	–„–	„	1	–„–
103.	Hand Tool Set with cabinet– G–5000	–„–	„	1	–„–
104.	Speed Vice No. 151	–„–	„	2	–„–
105.	Power Press SP–204 Motor 220 50 H	–„–	„	2	–„–
106.	Electri planer 136 MM Merk : Hitachi Type : F–40 B No : 190016	Agst. 1979	„	1	Workshop
107.	Electric Sirculer Sow 335 mm Merk : Hitachi Type : PS–13 A No. : 190005	–„–	„	1	Equipment
108.	Power Spaner K–401–A1 Banzai	Ags 1978	„	1	Workshop
109.	Portable Electric Grinder Merk : Hitachi Type : KBT–10 No :	Ags 1979	„	1	Equipment: Floor Stand: 1 EyeShield: 1 Water Pump: 1 Grinstuns: 10 Grinstunsfi-nis: 10 Pc

1	2	3	4	5	6
110.	Electric Drill Merk : Hitachi Type : DR–10 No. :	Ags 1979	SET	1	Equipment Shocket: 4,5, 6,6,8 mm Bitt: 4.5,6, 8 mm Wood Drill: 3 set
111.	Precision High speed lathe Merk : Takasiwa Type : Tal–510 No : Z 4 Z–92606	–„–	„	1	
112.	Cear Washer Merk/Type Nisan CS–5.200. No:	2 Juni 80	„	1	For Workshop of Lam- pung Tani Makmur Project
113.	Wheel Blancar (Super Road Merk/Type, Banzai WS–3939 No. :	–„–	„	1	
114.	Wheel Weight Tool Merk/Type Banzai HWF–10 No:	–„–	„	1	
115.	Wheel Balancing Weight set Merk/Type Banzai BW–1000	–„–	„	1	
116.	Air Meter Merk/Type Nisan WS–3912 No.:	–„–	„	1	
117.	Shap Ring Bleer Merk/Type Banzai H_{21} H_3	–„–	„	1	
118.	InjectionPump tool set Merk/Type, Nisan HD–1902	–„–	„	1	
119.	Torque wrench Merk/Type Nisan M. 5600 F	–„–	PCS	1	
120.	Electric Disk Grinder Merk/ Type Hitachi PD150A. No.	–„–	SET	2	
121.	Air Chuck Merk/Type Banzai WN–WB	–„–	„	1	
122.	Spare Plug Cleaner Merk/Type Banzai SP–30 E No.	–„–	„	1	
123.	Mesin Bubut (Brand Lette) Merk/Type. Takasiwa Tal– 510 x 1500 No. ..... Equipment	–„–	„	1	
	Steadi rest 30–1800		„	1	
	Folow rest 40–180 ϕ		„	1	
	12" 4 Jau Chuck with back plate		„	1	
	10" 3 –„–		„	1	
	Coolant System		„	1	
	Liver Centre Mt– No. 4		„	1	

1	2	3	4	5	6
	Work Ligh	2 Juny 80	SET	1	For Lampung
	Turret Stop		"	1	Tani Makmur
	Fase Plate 510 ϕ	"	"	1	Project.
124.	Spring Hammer Merk/Type Terasawa A. Type No. 2 No.....	—"—	"	1	

Table 11: Extension materials distributed to RECs by Tani Makmur Project in cooperation with the Agricultural Extension Service

a). Outline of bibliographical studies on cassava – a guide to cultivation of cassava – by Nojima and Hirose (20 copies to PPSs)

b). Distribution charts of mean annual and monthly precipitation in Lampung Province, by Nishizawa and Sugii (40 copies to PPSs and RECs)

c). Operational hand book for PPL training at REC – sawah rice crop (150 copies to RECs)

d). Collection of training materials for Plant Protection officers (100 copies to PPSs and RECs).

e). Collection of training materials for seed production (100 copies to PPSs and RECs).

f). Collection of training materials for Farm Management (100 copies to PPSs and RECs).

g). Collection of training materials for Farm Machineries (100 copies to PPSs and RECs)

h). Collection of training members for After Harvest Activities (100 copies to PPSs and RECs).

i). Tegineneng News No. I, II, III (150 copies to RECs).

j). Standardization of extension terminology (through copy – 150 to RECs)

k). National Key Farmers/Fisherman Convention in Bali, 1980 (through copy – 150 to RECs)

l). Results to the meeting of Key Farmers province of Lampung (through copy – 150 to RECs)

m). Program Planery Techniques all RECs level (100 copies to RECs)

n). Program Evaluation all REC level (100 copies to RECs)

o). Poster (Visit your saung/college for the meeting with PPL) (1500 copies to RECS).

p). Seal (ditto) 5000pcs to RECs)

Source : DAIMARU – Extension Expert Tani Makmur Project Lampung, 1979/1980.

SUPPORTING DATA
FINAL REPORT ON EVALUATION
FOR
LAMPUNG TANI MAKMUR PROJECT

THE JAPANESE AND INDONESIAN JOINT EVALUATION TEAM

JAKARTA, JULY 1980

SUPPORTING DATA
FINAL REPORT ON EVALUATION
F O R
LAMPUNG TANI MAKMUR PROJECT

T a b l e :

1. Development of low land area during Pelita I and Pelita II (1969–1979), Lampung Province.
2. Planting area of food crop in Lampung Province 1977–1979.
3. Harvested area, production and yield rate of food crop in Lampung Province, 1974–1978 (Pelita II).
4. Bimas and Inmas of low land rice, upland rice, secondary crop and vegetable crop in Lampung Province.
5. Bimas/Inmas of secondary crop by commodity in Lampung Province, 1974–1980/81.
6. Export of food crop commodities from Lampung Province.
7. Import of major commodities to Lampung Province 1974–1978.
8. Regional income (based on market price) in 1974 – 1978.
9. GRDP value of carbohydrat and protein per capita, 1977 – 1980 in Lampung Province.
10. Production of food crop per capita in Lampung Province, 1977 – 1980.
11. Labour force on farm agriculture, 1977 – 1980 in Lampung Province.
12. Contribution from the Government of Indonesia to the Lampung Tani Makmur Project.
13. Total value of Japenese Government aids to Lampung Tani Makmur Project 1972/1973 – 1980/81, Fiscal Year.
14. Proposed requirement for F.S. (TMP, 1979/1980).
15. List of seed distribution for lowland F.Y. 1979/1980)
16. Distribution seed of lowland rice, upland rice, and maize, 1978/1979.
17. Monthly rain fall and rainy days in Lampung Province 1972 – 1976 (5 years average)
18. Result of fertilization trial on upland and lowland rice
19. Recommendation of fertilization trial
20. Trial result of plant protection on the upland and lowland areas.
21. Lampung Tani Makmur Project Trial Result, Agronomic Division Fiscal Year 1977/78 – 1979/80.
22. Result of Agriculture Machinery and equipment trial conducted by LTMP, 1978/79 and 1979/80.
23. Using of tractor Lampung Tani Makmur Project, 1973–1980 period.
24. Using of 4 wheel tractor for soil cultivation at Tegineneng center, 1978 – 1980 period.
25. Capital Support of Tani Makmur demfarm.

26. Total Support of pesticide to the low land demfarm 1973–1977/1978.
27. Supporting of Agriculture input to the low land dem farm (1973–1977/1978)
28. Supporting of pest and diseases control equipment to the upland demfarm (planting season 1979/1980).
29. Supporting of pesticide to the upland demfarm 1973/74 – 1977/78.
30. Support of fertilizer to the upland demfarm (1973/74 – 1977/78).
31. Land of Lampung Tani Makmur Project.
32. List of Lampung Tani Makmur Project's building.
33. List of Laboratory equipment of Lampung Tani Makmur Project.
34. List of Agriculture extension inventory of the Lampung Tani Makmur Project.
35. List of Agriculture Equipment inventory.
36. Development of rice mill unit (RMU) Lampung Tani Makmur Project.

C H A R T

1. Organization chart of Lampung Tani Makmur Project According to SK of Director General of Food Crop Agriculture.

2. Pest and diseases control organization at dem farm of The Lampung Tani Makmur Project.

CHART 1 : Organization Chart of Lampung Tani Makmur Project
According to SK of Director General of Food Crop Agriculture
No. SK: I.A5 – 78.41

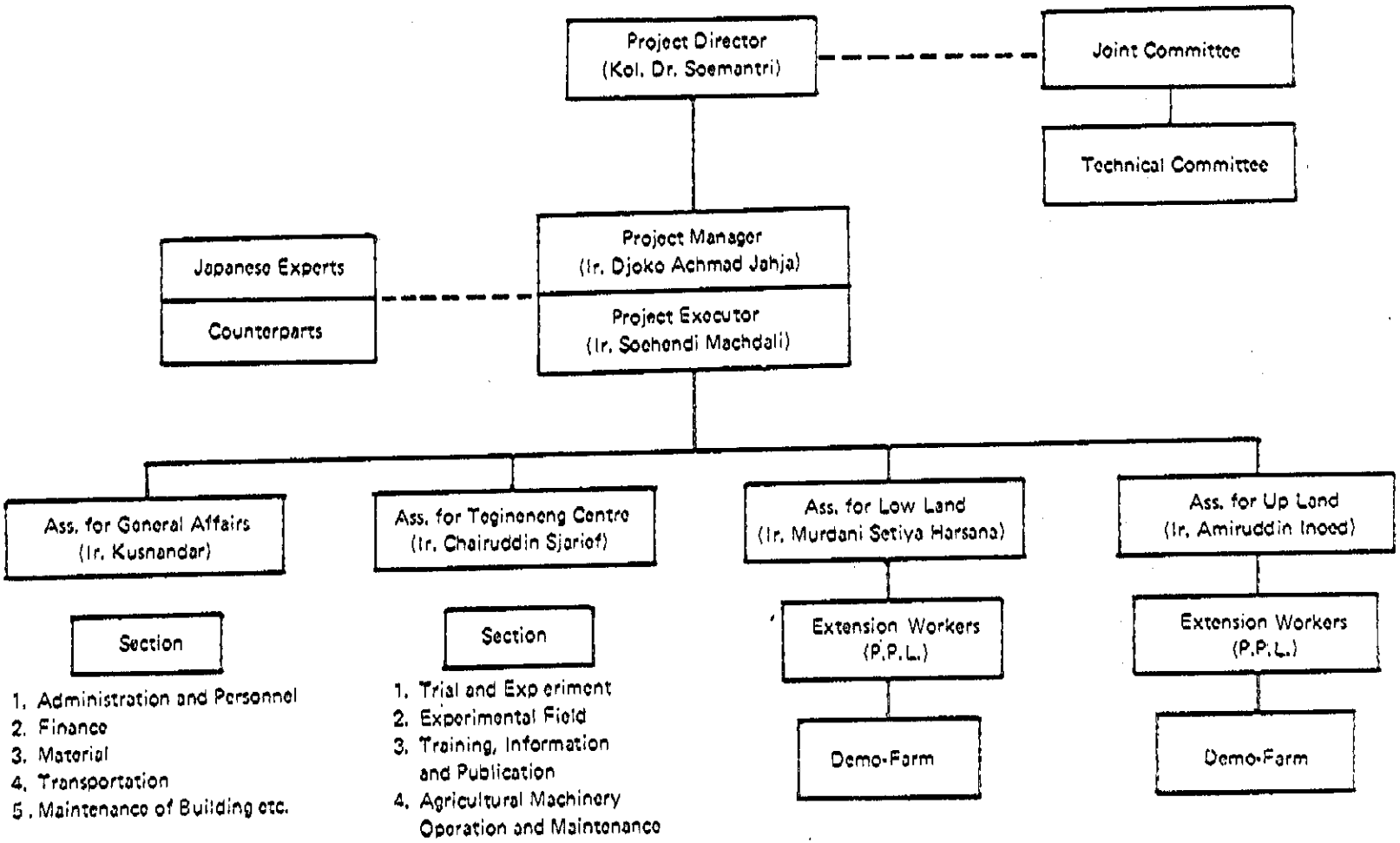
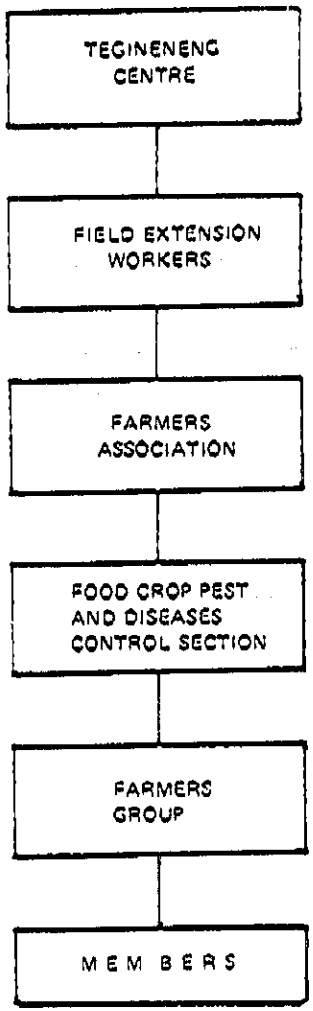


CHART 2. : PEST AND DISEASES CONTROL ORGANIZATION
AT DEM FARM OF THE LAMPUNG TANI MAKMUR PROJECT



LOW LAND

6 – 7 hours / ha	
3 ha / day	1 ha = 2.5 hours
1 ha/2.5 hours,	1 day/2 ha

HAND SPRAYER
POWER SPRAYER
MIST BLOWER

Hand sprayer	2 ha / units
Power sprayer	6 ha / "
Mist blower	4 ha / "

U P L A N D

Hand sprayer	4 ha / "
Power sprayer	12 ha / "
Mist blower	8 ha / "

Table 1. : Development of Lowland area during Pelita I and Pelita II (1969–1979) Lampung Province.

YEAR	P.U. IRRIGATION (Ha) *)				NON-PU IRRIGATION (Ha)	PU + NON IRR (Ha)	OTHERS (Ha)				TOTAL of LOW-LAND (Ha)	increase (%)
	Technical irr	Semi technical irr	Simple irr	Sub total			rainfed	Swamp	tidal	Sub total		
Pelita I												
1969	25.578	–	–	25.578	26.862	52.440	13.353	–	–	13.353	65.793	–
1970	29.775	–	–	29.775	27.276	57.051	10.956	3.275	–	14.231	71.282	8,34
1971	30.257,5	–	–	30.257,5	29.658,5	59.916	14.420	3.500	–	17.920	77.836	9,19
1972	32.006	–	–	32.006	33.027	65.033	14.530	3.868	–	18.398.	83.431	7,19
1973	41.179	–	–	41,179	28.267	69.446	12.291	8.579	475	21.345	90.791	8,82
Pelita II												
1974	42.851	–	960	43.811	18.023	61.834	24.183	15.221,5	475	39.869,5	101.703	12,02
1975	45.692	–	960	46.652	16.729	63.381	21.992	10.862	–	32.854	96.235	5,38
1976	47.695	1.822	1.150	50.667	18.125	68.792	27.283	12.540	475	40.298	109.090	13,36
1977	51.803	2.916	9.029	63.838	7.650	71.488	28.529	16.159	840	45.528	117.016	7,27
1978	50.583	10.736	5.134	76.453	–	76.453	30.083	5.357	16.803	52.243	128.696	9,98

Note : PU irrigation is irrigation maintains and manages by Public Work Service (Government Service).

Source: Agriculture Extension Service, Lampung Province.

Table 2 : Planting area of Food crop
in Lampung Province 1977 – 1979

No.	CROPS	1977	1978	1979
1.	Rice	279.372	264.074	283.498
2.	Maizena	52.733	47.799	60.466
3.	Cassava	61.614	84.051	96.401
4.	Sweet potatoes	3.005	3.039	3.109
5.	Peanuts	6.496	9.600	6.925
6.	Soy bean	37.046	26.676	32.575
7.	Mung bean	1.577	1.370	2.236

Source : Agriculture Extension Service of Lampung Province.

Table 3 : Harvested area, Production and Yield rate of Food crop in Lampung Province, 1974 – 1979 (Pelita II)

No.	Crops	1974			1975			1976			1977			1978		
		Harvested area (Ha)	Production (Ton)	Yield (qt/Ha)	Harvested area (Ha)	Production (Ton)	Yield (qt/ha)	Harvested area (Ha)	Production (Ton)	Yield (qt/ha)	Harvested area (Ha)	Production (Ton)	Yield (qt/ha)	Harvested area (Ha)	Production (Ton)	Yield (qt/ha)
1.	Hulled rice	221.085	282.218	12,77	237.911	326.113	13,71	228.453	330.278	14,45	252.862	381.626	15,09	258.948	403.884	15,60
2.	Maize	72.575	91.842	12,66	19.051	18.977	9,96	33.217	43.522	13,10	44.208	62.338	14,10	47.434	64.654	13,63
3.	Cassava	54.141	611.672	112,98	60.623	735.243	121,13	59.445	660.987	111,20	71.371	866.091	120,50	78.853	916.270	116,20
4.	Sweet potatoes	2.582	20.248	78,42	2.531	17.311	70,37	2.079	13.841	66,58	3.126	22.906	73,27	2.785	19.331	69,41
5.	Peanuts	4.617	2.892	6,26	6.942	5.114	7,36	5.911	4.779	8,08	5.585	4.012	7,18	8.934	5.855	6,97
6.	Soybeans	52.319	43.197	8,26	36.574	30.804	8,42	30.775	22.946	7,45	31.302	28.056	8,96	37.246	28.569	7,67
7.	Mung beans	1.229	665	5,41	952	592	6,22	901	604	6,70	1.588	1.009	6,35	1.293	724	5,60
8.	Sorghum	490	741	15,12	1.348	2.585	19,20	380	1.023	26,92	360	407	11,30	384	672	17,50
9.	Vegetable	9.671	32.006	33,09	10.864	21.975	20,23	9.872	24.250	24,56	13.346	36.016	26,98	14.417	17.979	12,47
10.	Fruits	25.746	61.747	23,98	27.218	83.345	30,62	24.052	75.452	31,37	24.881	53.984	21,70	6.168	51.303	83,17

Source : Agriculture Extension Service of Lampung Province.

表5. ランポン州におけるビマス・インマス計画の推移 Table 4 : Bimas and Inmas of Lowland rice, Upland rice, Secondary crop and Vegetable crop in Lampung Province.

（単位 ha）

No.	Planting 作期 Season	←B…M…A…S ビマス						←TOTAL 合計 B+M+A+S		←N…M…A…S インマス					
		Lowland rice		Upland rice		Secondary Crop				Lowland rice		Upland rice		Secondary Crop	
		Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1974	10.000	9.521,225	--	-	3.700	4.689,690	13.700	14.638,915	5.000	408,95	-	-	3.700	4.689,690
	1974/1975	41.000	35.191,815	4.000	3.568,170	9.800	9.403,375	54.800	48.181,350	20.000	14.461,90	4.000	80	2.200	1.342,00
	1975	13.500	9.912,050	-	-	8.500	3.586,280	22.000	13.098,330	3.000	11.932,80	-	-	1.500	3.110,47
	1975/1976	49.000	28.301,778	6.000	2.702,625	15.600	5.146,180	70.600	36.150,583	32.000	1.719,87	2.800	2.354	3.700	90,10
	1976	12.000	7.774,915	-	-	8.500	1.608,16	20.500	9.383,075	3.000	2.617,50	-	-	3.000	6,50
	1976/1977	50.000	36.177,960	6.000	294,500	15.500	2.054,25	71.500	38.526,710	32.000	29.440,00	2.800	4.976,00	5.500	1.533,750
	1977	12.000	7.674,315	-	-	8.500	365,75	20.000	8.040,065	3.000	6.080,00	-	-	3.000	345,00
	1977/1978	51.000	29.890,270	6.000	3.685,210	17.500	2.581,500	74.500	36.156,980	32.000	32.940,25	2.800	10.255,125	3.500	20.469,50
	1978	10.000	5.719,640	-	-	5.300	777,50	15.300	5.497,065	7.000	12.363,91	-	-	5.500	2.437,00
	1978/1979	37.000	24.126,410	3.000	4.613,50	6.000	1.492,25	46.000	30.232,180	48.000	42.969,52	5.800	17.057,50	8.700	9.261,75
	1979	6.000	6.072,355	-	-	6.690	756,45	12.790	6.828,805	11.000	17.120,82	-	-	2.760	1.443,00
	1979/1980	36.000	25.536,780	5.000	6.644,50	10.700	1.577,625	51.700	33.578,825	50.000	50.560,00	12.000	23.119,50	16.000	11.823,12
	1980	6.500	-	-	-	12.000	-	18.500	-	11.500	-	-	-	3.500	3.500,00
	1980/1981	36.500	-	7.000	-	14.860	-	58.360	-	37.600	-	13.450	-	10.300	-

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TOTAL INMAS		BIMAS		INMAS		TOTAL BIMAS & INMAS		NOTE
		Vegetable		Vegetable		Vegetable		
Target	Realization	Target	Realization	Target	Realization	Target	Realization	
17	18	19	20	21	22	23	24	25
8.700	5.098,640	-	-	-	-	-	-	-
26.200	15.883,900	-	-	-	-	-	-	
4.500	16.543,270	-	-	-	-	-	-	
38.500	4.163,970	-	-	-	-	-	-	
6.000	2.624,000	-	-	920	290,25	920	290,25	
40.300	35.949,750	-	-	1,123	1.123,00	1.123	1.123,00	
6.000	6.425,000	-	-	920	152,75	920	152,75	
38.300	45.241,850	-	-	1,123	723,25	1.123	723,25	
12.500	14.800,910	-	-	1.000	1.116,50	1.000	1.116,50	
62.500	69.288,770	-	-	1.250	1.223,00	1.250	1.223,00	
13.760	18.563,000	-	-	1.100	645,75	1.100	645,75	
78.000	85.502,125	-	-	1,400	915,50	1.400	915,50	
18.500	-	-	-	1.250	-	1.250	-	
61.350	-	-	-	2.750	-	2.750	-	

Table 5 : Bimas/Inmas of Secondary crop by commodity in Lampung Province, 1974 – 1980/81

No.	PLANTING SEASON	BIMAS													
		MAIZE		SORGHUM		CASSAVA		SWEET POTATOES		PEANUTS		SOYBEAN		TOTAL	
		Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization
1.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	1974	2.500	2.314	200	178,250	–	–	–	–	–	–	1.000	2.194,375	3.700	4.686,690
2.	1974/1975	3.500	108,375	1.250	160,250	–	–	–	–	150	1.931,375	4.900	7.203,375	9.900	9.403,375
3.	1975	4.000	1.152,700	500	120	–	–	–	–	500	618,75	3.500	1.694,75	8.500	3.586,28
4.	1975/1976	7.000	380,43	1.000	–	–	–	–	–	1.100	1.101,50	6.500	3.744,25	15.600	5.146,18
5.	1976	4.000	279,66	500	–	–	–	–	–	500	367,00	3.500	952,50	8.500	1.598,66
6.	1976/1977	7.000	217,75	1.000	–	–	–	–	–	1.000	722,00	6.500	1.114,50	15.500	2.054,25
7.	1977	4.000	144,75	500	–	–	–	–	–	500	154,50	3.500	66,50	8.500	365,25
8.	1977/1978	7.000	173,25	1.000	–	2.000	100	–	–	1.000	995,00	6.500	1.313,250	17.500	2.581,50
9.	1978	2.800	42,00	–	–	–	–	–	–	500	603,50	2.000	132,00	5.300	777,50
10.	1978/1979	500	210,00	–	–		144,25	–	–	1.000	765,25	4.300	303,25	5.000	1.422,75
11.	1979	2.700	585,75	–	–	–	–	–	–	500	97,50	3.490	76,25	6.690	779,50
12.	1979/1980	3.000	89,50	–	–	–	–	–	–	1.880	579,875	5.290	908,25	10.700	1.577,625
13.	1980	7.200	–	–	–	–	–	–	–	300	–	4.500	–	12.000	–
14.	1980/1981	7.460	–	–	–	–	–	–	–	900	–	6.500	–	14.860	–

No.	PLANTING SEASON	INMAS														TOTAL BIMAS + INMAS		NOTE
		MAIZE		SORGHUM		CASSAVA		SWEET POTATOS		PEANUTS		SOY BEAN		TOTAL				
		Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	Target	Realization	
1	2	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1.	1974	1.000	104	300	-	-	-	-	-	-	-	1.000	-	2.300	404	6.000	5.000,000	
2	1974/1975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.800	9.403,375	
3	1975	-	-	-	-	-	-	-	-	-	-	-	-	1.500	3.110,47	10.000	6.696,750	
4	1975/1976	2.000	84,10	-	-	-	-	-	-	-	500	1.700	5	4.200	589,10	19.800	4.735,280	
5	1976	500	5	1.500	-	-	-	-	-	-	1	1.000	0,5	3.000	6,5	11.500	1.604,680	
6	1976/1977	2.000	1.529,75	-	-	2.000	-	-	-	-	-	1.500	0	5.500	1.533,75	21.000	3.503,000	
7	1977	500	300	1.500	40	-	-	-	-	-	5	1.000	-	3.000	345	11.500	770,250	
8.	1977/1978	2.000	936	-	-	-	828,50	-	-	-	51	1.500	221	3.500	2.046,50	21.000	4.628,160	
9	1978	2.200	212	-	-	1.000	1.870	-	-	300	46	2.000	45	5.500	2.173	10.000	2.950,500	
10	1978/1979	4.500	4.185	-	-	2.000	3.320	-	-	200	206	2.000	753,50	8.700	9.261,75	14.500	10.624,250	
11	1979	300	1.130	-	-	1.000	90	-	-	300	130	1.100	72	2.700	1.443	9.450	2.222,500	
12	1979/1980	2.200	6.040	-	-	2.000	3.030,75	-	-	620	300,50	620	300,50	16.000	11.823,125	26.700	13.400,750	
13	1980	500	-	-	-	1.000	-	-	-	200	-	1.500	-	3.500	-	15.500	-	
14.	1980/1981	5.000	-	-	-	3.000	-	-	-	300	-	2.000	-	10.300	-	25.160	-	

Source : Agriculture Extension Service of Lampung Province.

Table 6 : Export of Food crop commodities from Lampung Province
1977 – 1978

	COMMODITIES	VOLUME & VALUE							
		1977		1978		1979		1980	
		VOLUME TON	VALUE US. $	VOLUME TON	VALUE US. $	VOLUME TON	VALUE US. $	VOLUME TON	VALUE US. $
1.	MAIZE	3.888.640	449.965,28	2.460.000	275.284,15	1.900.000	204.921,10		
2.	CHIPS	141.777.400	10.466.495,77	195.471.610	12.732.802,15	169.919.083	15.779.048,08		
3.	TAPIOCA MEAL	–	–	–	–	31.297.898	6.002.232,41	1.650.000	756.250
4.	B R A N	6.334.700	133.726,21	605.530	12.116,82	2.762,251	102.501,37	117,060	4.933
5.	SOY BEANS	–	–	–	–	–		–	–
6.	SORGHUM	–	–	178.200	17.925,47	–	–	–	–
7.	CHIPS MEAL	–	–	–	–	–	–	–	–

Note : Data of 1980 untill February 1980

Source : Rept office Dept of Trade of Lampung Province.

Table 7 : Import of Major commodities to Lampung Province 1974 – 1978

Volume: Ton

No.	Commodity	1974	1975	1976	1977	1978
1.	Cement	16,092.5	7,420.3	34,829.40	23,702.4	1,100
2.	Rice	6,739	–	8,700	11,627.2	15,994.9
3.	Asphalt	3,715.8	6,357.2	1,000	2,000	3,494
4.	Fertilizer	10,819.72	26.612.1	8.463.80	8,527.6	20,245.9
5.	Machinery/Heavy Equipments Spare part	3,675.2	1,568.2	5,368.50	5,898.4	–
6.	Wheat Flour	–	–	–	1,043	1,128
7.	Bulgur Wheat	2,793.2	–	–	–	–
8.	Miscellaneous	1,878	14,203.4	1,930,9	–	11,093.7

Source : Port Administrator Panjang.

Table 8 : Regional Income (Based on Market Price)
in 1974 – 1978

No.	Description	1974	1975	1976	1977	1978
1.	Gross Domestic Regional Product (Million rupiahs)	186,226.9	218,332.2	283,228	389,543.4	424,392.4
2.	Depreciations (Million rupiahs)	9,934.9	11,651.6	15,282.6	20,327.0	23,135.2
3.	Net Domestic Regional Product (Million rupiahs)	176,292.0	206,680.6	267,945.4	369,216.4	401,257.2
4.	Net Indirect tax	2,039.4	2,617.4	3.055.3	4,202.2	4,578.1
5.	Net Domestic Regional Product based on cost of factor/regional income (Million rupiahs)	174,252.6	204,063.2	264,890.1	365,014.2	396,679.1
6.	Midyear population (people) = 1000.	3,032.4	3,227.6	3,437.3	3,767.7	3,763.9
7.	Gross Domestic Regional Product per capita (rupiahs)	61,412.4	67,645.4	82,398.4	105,949.2	112,753.4
8.	Regional Income per capita (rupiahs)	57,463.6	63,224.4	77,063.4	99,277.7	105,390.4

Source : The Evaluation of PELITA II, Lampung Province.

Table 9: G R D P Value of Carbohydrat and Protein Per capita, 1977 – 1980 in Lampung Province

No.	Y E A R	GRDP VALUE OF CARBOHYDRAT	GRDP VALUE OF PROTEIN	T O T A L
		Rp/Capita/Year	Rp/Capita/Year	Rp/Capita/Year
1.	1977	9,975	1,751	11,726
2.	1978	9,726	2,004	11,730
3.	1979	13,521	2,383	15,904
4.	1980	14,256	2,735	16,991

Note : – Carbohydrat : rice, maize, root crops
– Protein : beans, nuts

Source : Agriculture Extension Service of Lampung Province.

Table 10 : Production of Food crop Per capita
in Lampung Province, 1977 – 1980

NO.	YEAR POPULATION	COMMODITIES	1977				1978				1979				1980			
			HARVESTED AREA (HA)	PRODUCTION Total (ton)	PRODUCTION Rate qt.	PRODUCTION Per Cap. Kg.	HARVESTED AREA (HA)	PRODUCTION Total (ton)	PRODUCTION Rate qt.	PRODUCTION Per Cap. Kg.	HARVESTED AREA (HA)	PRODUCTION Total (Ton)	PRODUCTION Rate qt	PRODUCTION Per Cap. Kg.	HARVESTED AREA (HA)	PRODUCTION Total (ton)	PRODUCTION Rate qt.	PRODUCTION Per Cap. Kg.
1.	1977 3.707.324	Paddy	252.862	562.870	22,26	151,83	258.948	595.699	23.00	155,92	267.972	623.093	23,25	154,94	271,041	606.581	22,38	143,38
2.	1978 3.820.481	Maize	44.207	62.338	14,10	16,81	47.434	64.654	13,63	16,92	58.928	84.734	14,37	21,08	50,979	65.436	12,84	15,47
3.	1979 4.020.292	Cassava	71.871	866.092	120,51	233,62	78.853	916.270	116,20	239,83	83.826	1020.363	121,72	253,80	84.494	1023.035	121,08	241,82
		Sweet Potatoes	3.126	22.906	73,28	6,18	2.784	19.331	69,44	5,06	3.392	23.083	68,05	5,74	2.364	18.908	79,98	4,47
4.	1980	Peanuts	5.584	4.012	7,18	1,08	8.394	5.855	6,98	1,53	8.566	6.243	7,29	1,55	8.531	6.172	7,24	1,46
	4.230.553	Soybeans	31.302	28.056	8,96	7,57	37.246	28.569	7,67	7,48	35.202	21.411	6,08	5,33	39.224	26.352	6,72	6,23
		Green Beans	1.588	1.008	6,35	0,27	1.293	724	5,60	0,19	2.260	1.689	7,47	0,42	1.342	798	5,95	0,19

Note : Paddy : dried gabah
Maize : dried grains
Cassava : Wet Roots
Sweet potatoes : Wet roots
Peanuts : dried grain
Green beans : dried grain
Soyboan : dried grain

Table 11 : Labour Force on Farm Agriculture, 1977 – 1980, in Lampung Province

No.	YEAR	LABOUR FORCE ON FARM AGRICULTURE	NOTE
1.	1977	3,151,225	Labour force on farm agriculture about 85% of total population.
2.	1978	3,247,409	
3.	1979	3,417,248	
4.	1980	3,595,970	

Source : Agriculture Extension Service of Lampung Province.

Table 12 : Contribution from the Government of Indonesia to the Lampung Tani Makmur Project

x Rp. 1,000,--

No.	Item 1)	Fiscal Year 1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	Sub Total	Fiscal Year 1978/79	1979/80	1980/81	Sub Total	Total
1.	Wages	428	7,686	15,740	23,331	28,211	24,540	99,936	33,790	39,206	46,485	119,480	219,416
2.	Land	-	4,985	1,800	240	560	740	8,325	903	1,645	3,015	5,563	13,888
3.	Materials	48	8,051	9,785	16,614	23,362	13,585	71,445	5,997	12,470	15,123	33,590	105,035
4.	Equipment/ Machineries	-	250	3,610	40	-	-	3,900	5,000	-	-	5,000	8,900
5.	Transportation & Handling Cost	4,500	13,542	10,705	25,000	22,250	22,905	98,902	27,295	39,470	-	66,765	165,667
6.	Travel	1,024	3,477	2,495	7,070	8,517	5,070	27,653	7,800	9,825	5,535	23,160	50,813
7.	Construction	1,700	64,875	65,381	29,910	53,695	14,400	229,961	-	-	-	-	229,961
8.	Other	-	282	789	200	1,200	13,475	15,946	16,450	25,850	31,445	73,745	89,691
	Total	7,700	103,148	110,305	102,405	137,795	94,715	556,068	97,235	128,465	101,603	327,303	883,371

Note : 1) According to the budget description in D.I.P.

Source : Dinas Pertanian Propinsi Dati I Lampung.

Table 13 : Total Value of Japanese Government Aids to Lampung Tani Makmur Project
1972/1973 – 1980/1981 Fiscal Year.

No.	DATE	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81
1.	17 Mar 73 – 1973	94.396.217	–	–	–	–	–	–	–	–
2.	10 June 74 – 2 Aug. 74	–	92.368.061	–	–	–	–	–	–	–
3.	12 Dec, 75 – 20 Dec. 75	–	–	137.572.593	–	–	–	–	–	–
4.	12 Dec. 76 – Dec. 76	–	–	–	165.635.366	–	–	–	–	–
5.	19 June 77 – 12 Oct. 77	–	–	–	–	233.060.369	–	–	–	–
6.	30 Jan. 78 – 14 July. 78	–	–	–	–	–	77.163.224 *)	–	–	–
7.	1 Jan. 79 – 26 Mart 79	–	–	–	–	–	–	77.084.752	–	–
8.	Local purchases	–	–	–	–	–	–	1.500.000	–	–
9.	26 Mar 1979	–	–	–	–	–	–	–	57.087.253	–
10.	Local purchases	–	–	–	–	–	–	–	1.100.000	–
11.	Next sending (June 80)	–	–	–	–	–	–	–	4.000.000	–
									10.000.000 (addition)	
12.	Next sending	–	–	–	–	–	–	–	–	38.000.000

Note : *) first phase aids remainder

₩ 988.967.335

Source: Lampung Tani Makmur Project.

Table 14 : Proposed Requirement for F.S. LTMP, 1979/1980

Commodity	Plan of area (Ha)	Plan of activities									
		Planting Season 1979/1980					Planting Season 1980				
		Location	Variety	Area (Ha)	F.S. (Kg)	Time	Location	Variety	Area (Ha)	F.S.	Time
- Lowland rice	10	Teginenong Centre	IR 38	0.5	20	Oct. '79	Teginenong Centre	IR 32	2	80	April '80
			IR 36	2	80	Oct. '79		Asahan	1	40	April '80
			Asahan	2	80	Oct. '79		IR 38	1	40	April '80
			IR 42	0.5	20	Oct. '79		IR 42	1	40	April '80
- Secondary Crop	15	Teginenong Centre	Soybean	0.5	20	Oct. '79	Teginenong Centre	Maize	14	490	March '80
			Peanut	0.5	60	Oct. '79					
- Upland rice	13	Teginenong Centre	Gete	0.5	20	Oct. '79					
			Gati	0.5	20	Oct. '79					
			Local	12	-	Oct. '79					

Source : Agriculture Extension Service.

Table 15 : List of Seed Distribution for Lowland F.Y. 1979/1980

C R O P	VARIETY	TOTAL (Kg)	DISTRIBUTED TO
Lowland rice	IR 36	450	Seed grower at Tempuran.
		400	Seed grower at Bumiharjo.
		300	Seed grower at Margorejo.
		50	Seed grower at Metro.
		575	Seed grower at Seputih Jaya.
		200	Farmer's Group Bina Karya.
		800	Seed grower at Ganjar Agung.
		150	Farmer at Raman Utara.
		400	Seed grower at Banar Joyo.
		20	Farmer at Trimurjo.
		95	Farmer at Raman Utara.
		80	Farmer's group Rejo Makmur at Raman Utara.
		240	Farmer's Group Sri Werdi, at Rejobinangun.
		15	Trial at Sri Mulyo.
		3.750	Insus of South Lampung.
GRAND TOTAL		7.525	

Table 16: Distribution Seed of Lowland Rice, Upland Rice, and Maize, 1978/1979

CROP	VARIETY	TOTAL (Kg)	DISTRIBUTED TO
1	2	3	4
1. Lowland rice	IR 26	1.400	— Seed grower Tani Makmur Project Kec. Punggur, Metro, Trimurjo, Batang hari.
		40	— Trial at Tegineneng Centre.
		60	— Fertilizer trial of lowland rice.
	TOTAL	1.500	
	IR 36	850	— Agricultural Machinery Pilot Project, Korem 413 GATAM at Kec. Terbanggi Besar.
		700	— For Demo Farm Tani Makmur Project.
	TOTAL	1.550	
	IR 38	190	— Farmer's at Kec. Natar.
		560	— Transmigration Project, at Kec. Tulang Bawang.
		1.735	— For Dem Bul Kab. Central Lampung.
	TOTAL	2.485	
	CITARUM	125	— Seed grower Tani Makmur Project.
		125	— Seed grower at Kec. Trimurjo.
		50	— Seed grower at Kec. Trimurjo.
		25	— Seed multiplication at Tegineneng Centre.
		2.000	— For PUSKUD, Lampung.
		382	— For Dem Farm Tani Makmur Project.
	TOTAL	2.707	
	ASAHAN	763	— For Demo Farm Tani Makmur Project.
		100	— For Agriculture Extension Service.
	TOTAL	863	

1	2	3	4
	SERAYU	475	– Seed grower Tani Makmur Project at Kec. Metro.
		475	– Seed grower at Kec. Punggur & Raman Utara.
		250	– Seed grower at Kec. Raman Utara.
		40	– Seed grower at Kec. Punggur.
		225	– Seed grower at Kec. Punggur.
		117	– For seed multiplication at Tegineneng Centre.
	TOTAL	1.400	
2. Upland rice	BICOL	410	– For Dem Farm at Kec. Natar.
		320	– For Farmer in Tanjung Karang.
		75	– Variety trial.
		45	– Seed multiplication at Tegineneng Centre.
		300	– Seed Farm at Kec. Kota Bumi.
		18	– Trial For UNILA.
		300	– For Demo Farm Tani Makmur Project.
	TOTAL	1.468	

1	2	3	4
	SIRENDAH	615	– Seed grower Tani Makmur Project.
		2.000	– Transmigration Project Tulang Bawang.
		182	– Seed multiplication at Tegineneng Centre.
		77	– Demonstration at Bangunrejo.
		159	– For Demo Farm Tani Makmur Project.
		5	– Trial LP3, Bogor.
		40	– Plant Protection Trial.
		4.694	– For Farmers Demo Farm Tani Makmur Project.
	TOTAL	7.772	
	CARTUNA	175	– Farmer Demo Farm at Kec. Gunung Sugih.
		1.000	– Transmigration Project Tulang Bawang.
		200	– PT Labuhan Ratu at Kec. Natar.
		10	– Trial at Tegineneng Centre.
		50	– Plant Protection Trial at Rumbia.
		25	– Farmer at Masgar.
	TOTAL	1.460	

1	2	3	4
	SERATUS MALAM	400	– Farmer at Kec. Padang Ratu.
		310	– Trial FAO.
		200	– PT Labuhan Ratu.
		4.025	– Transmigration Project Tulang Bawang
		112	– Variety & Fertilizer Trial.
	TOTAL	5.047	
	CEMPO-TURI	1.000	– Transmigration Tulang Bawang.
		50	– Seed multiplication at Tegineneng Centre.
		312	– For Demo Farm Tani Makmur Project.
	TOTAL	1.362	
	SIBERANG	305	– Seed grower Tani Makmur Project at Natar.
		2.117	– Transmigration Project Tulang Bawang.
		180	– Seed multiplication at Tegineneng Centre.
		300	– For Demo Farm Tani Makmur Project.
	TOTAL	2.902	

1	2	3	4
3. MAIZE	H. 6.	705	– Farmers Demo Farm Kec. Natar, Gunung Sugih, & Sukoharjo.
		5.400	– Transmigration Project Tulang Bawang & Kalianda.
		2.000	– PT LAKA UTAMA in Tanjung Karang.
		825	– PT Multi Agro at Kec. Terbanggi Besar.
		1.250	– For PT Mitsugoro
		625	– For PT Silajaya.
		250	– For Agriculture Extension Service.
		50	– For seed farm Tanjung Ratu.
		154	– For trial
		1.000	– For farmer out side of Demo farm.
	TOTAL	12.259	

Source : Lampung Tani Makmur Project (L.T.M.P.).

Table 17 : Monthly Rain Fall and Rainy Days in Lamphun Province
1972 -- 1976 (5 years average)

YEAR	January		February		Mar		April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		Total	
	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days	mm	days
1972	404	18	236	14	330	16	176	10	139	10	41	3	14	2	30	3	7	2	31	2	147	8	271	12	1857	98
1973	204	10	304	14	292	14	126	10	262	12	174	11	77	4	165	9	258	14	185	11	200	11	286	12	2533	130
1974	145	10	244	12	224	10	155	7	138	6	118	7	109	6	156	9	246	11	152	8	264	13	230	14	2145	119
1975	333	15	296	14	230	12	256	12	184	8	119	5	122	10	126	8	172	10	246	12	200	10	210	12	2494	128
1976	240	16	222	11	203	10	168	10	97	6	41	4	92	5	112	6	40	3	176	10	276	12	284	12	2040	111
Average	265	14	260	13	274	14	176	10	164	8	98	6	82	5	118	7	144	8	158	8	217	10	256	12	2239	117

Note : Average of all rainfall sub station managed by Agriculture Extension Service.

Source : Agriculture Extension Service of Lamphun Province.

Table 18 : Result of Fertilization Trial on Upland and Lowland Rice.

No.	Kind of Trial	Location			Planting Season	Conclusion	Note
		District	Sub District	Village			
1	2	3	4	5	6	7	8
1.	Fertilization doses for upland rice	North Lampung	Abung Selatan	Sukamaju	78/79	Optimum dosen of fertilizer are as follow Bicol variety: N = 69 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 46 kg/Ha P_2O_5 = 45 kg/Ha	Yield: 2.277 t/Ha Yield : 2.223 t/Ha
2.	Fertilization doses for upland Rice	North Lampung	Baradatu	Setia Nagara	78/79	Optimum doses of fertilizer are as follow Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield : 2.057 t/Ha Yield : 2.943 t/Ha
3.	Fertilization doses for Upland Rice	Control Lampung	Sekampung	Hargo Mulyo	78/79	Optimum doses of fertilization are as follow : Bicor variety : N = 92 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield : 3.057 t/Ha Yield : 2.543 t/Ha

	2	3	4	5	6	7	8
4.	Fertilization doses for Upland Rice	Central Lampung	Mangunrejo	Sinar Seputih	78/79	Optimum doses of fertilizer are as follow: Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 2,250 t/Ha Yield = 3,017 t/Ha
5.	Fertilization doses for Up land Rice	Central Lampung	Kalirejo	Sinar Sari	78/79	Optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 2,277 t/Ha Yield = 2,443 t/Ha
6.	Fertilization doses for Upland Rice	Central Lampung	Way Jepara	Labuhan Ratu	78/79	Optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 2,757 t/Ha Yield = 2,600 t/Ha
7.	Fertilization doses for Upland Rice	Central Lampung	Rumbia	Reno Basuki	78/79	Optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 1,435 t/Ha Yield = 1,477 t/Ha

1	2	3	4	5	6	7	8
8.	Fertilization doses for Upland Rice	South Lampung	Ketibung	Trans Tanjungan	78/79	Optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,433 t/Ha Yield = 3,333 t/Ha
9.	Fertilization doses for Upland Rice	South Lampung	Kedondong	Tempelrejo	78/79	Optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 1,863 t/Ha Yield = 2,110 t/Ha
10.	Fertilization doses for Upland Rice	South Lampung	Pardasuka	Wargamulyo	78/79	The optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,684 t/Ha Yield = 2,344 t/Ha
11.	Fertilization doses for Upland Rice	North Lampung	Baradatu	Campur Asri	78/80	The optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 46 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,543 t/Ha Yield = 2,667 t/Ha

1	2	3	4	5	6	7	8
12.	Fertilization doses for Upland Rice	North Lampung	Banjit	Bali Sadar	79/80	The optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,243 t/Ha Yield = 2,577 t/Ha
13.	Fertilization doses for Upland Rice	North Lampung	Abung Selatan	Sukamaju	78/80	The optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 46 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,557 t/Ha yield = 3,167 t/Ha
14.	Fertilization doses for Upland Rice	Central Lampung	Sekampung	Hargomulyo	79/80	The optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 46 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,223 t/Ha Yield = 2,250 t/Ha
15.	Fertilization doses for Upland Rice	Central Lampung	Bangunrejo	Tanjung Jaya	79/80	The optimum doses of fertilizer are as follow : Bicor variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 46 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,610 t/Ha Yield = 2,223 t/Ha

1	2	3	4	5	6	7	8
16.	Fertilization doses for Up-Land Rice	Central Lampung	Kalirejo	Sukasari	79/80	The optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 2,210 t/Ha Yield = 2,223 t/Ha
17.	Fertilization doses for Up-land Rice	Central Lampung	Jabung	Asahan	79/80	The optimum doses for fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 5,890 t/Ha Yield = 6,333 t/Ha
18.	Fertilization doses for Up-land Rice	Central Lampung	Way Jepara	Labuhan Ratu	79/80	The optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus variety : N = 69 kg/Ha $P_2O_{\%}$ @ 67,5 kg/Ha	Yield = 2,167 t/Ha Yield = 2,111 t/Ha
19.	Fertilization doses for Up-land Rice	Central Lampung	Rumbia	Sri Koncono	79/80	The optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 1,910 t/Ha Yield = 1,640 t/Ha

1	2	3	4	5	6	7	8
20.	Fertilization doses for Upland Rice	South Lampung	Pardasuka	Gunung Terang	79/80	The optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	 Yield = 2,750 t/Ha Yield = 2,499 t/Ha
21.	Fertilization doses for Upland Rice	South Lampung	Kedondong	Tempelrejo	79/80	The optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	 Yield = 2,083 t/Ha Yield = 2,083 t/Ha
22.	Fertilization doses for Upland Rice	South Lampung	Ketibung	Trans Tanjungan	79/80	The optimum doses of fertilizer are as follow : Bicol variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Seratus malam variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	 Yield = 4,667 t/Ha Yield = 2,999 t/Ha
23.	Fertilization doses for Upland Rice	South Lampung	Pardasuka	Wargomulyo	78/79	The optimum doses of fertilizer are as follow : IR 26 variety : N = 92 kg/Ha P_2O_5 = 45 kg/Ha Asahan variety : N = 92 kg/Ha P_2O_5 = 45 kg/Ha	 Yield = 5.500 t/Ha Yield = 4,350 t/Ha

1	2	3	4	5	6	7	8
24.	Fertilization doses for Upland Rice	South Lampung	Kedondong	Sidodadi	78/79	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,540 t/Ha Yield = 6,040 t/Ha
25.	Fertilization doses for Upland Rice	South Lampung	Penengahan	Klaten	78/79	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,235 t/Ha Yield = 4,965 t/Ha
26.	Fertilization doses for Upland Rice	Central Lampung	Way Jepara	Breja Indah	78/79	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Pelita I/1 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha PB 5 variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 4,800 t/Ha Yield = 6,115 t/Ha Yield = 6,415 t/Ha

1.	2	3	4	5	6	7	8
27.	Fertilization doses for Upland Rice	Central Lampung	Way Jepara	Braja Asri	78/79	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,785 t/Ha Yield = 4,985 t/Ha
28.	Time of Nitrogen Fertilization Lowland Rice (IR 26)	Central Lampung	Way Jepara	Braja Indah	78/79	The effective time of application of Nitrogen fertilizer are as follow : Basal fertilizer = 3 days after transplanting (15%) First Top Dressing = 15 days after transplanting (25%) Second Top Dressing = 40 days after transplanting (45%) Third Top Dressing = 60 days after transplanting (15%)	Variety = IR 26 Doses = N = 92 kg/Ha P_2O_5 = 45 kg/Ha Yield = 5,057 t/Ha

1	2	3	4	5	6	7	8
29.	Fertilization doses for Low-land Rice	Central Lampung	Sekampung	Hargomulyo	78/79	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,550 t/Ha Yield = 6,815 t/Ha
30.	Fertilization doses for Low-land Rice	South Lampung	Talang Padang	Campang	79/80	The optimum doses of fertilizer are as follow : IR 36 variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 5,665 t/Ha Yield = 6,250 t/Ha
31.	Fertilization doses for Low-land Rice	South Lampung	Kedondong	Gunung Asri	79/80	The optimum doses of fertilizer are as follow : IR 36 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,236 t/Ha Yield = 5,678 t/Ha

1	2	3	4	5	6	7	8
32.	Fertilization doses for Low-land Rice	South Lampung	Pardasuka	Wargamulyo	79/80	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety N = 92 kg/Ha P_2O_5 = 45 kg/Ha	Yield = 4,025 t/Ha Yield = 4,890 t/Ha
33.	Fertilization doses for Low-land Rice	South Lampung	Penengahan	Pasuruhan	79/80	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,326 t/Ha Yield 5,208 t/Ha
34.	Fertilization doses for Low-land Rice	Central Lampung	Raman Utara	Rejo Binangun	79/80	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety :	Yield = 5,208 t/Ha Yield = 7,980 t/Ha

1	2	3	4	5	6	7	8
35.	Fertilization doses for Low-land Rice	Central Lampung	Seputih Raman	Rukti Harjo	79/80	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 7,389 t/Ha
36.	Fertilization doses for Low-land Rice	Central Lampung	Batang-hari	Batang-harjo	79/80	The optimum doses of fertilizer are as follow : IR 26 variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha Asahan variety : N = 69 kg/Ha P_2O_5 = 67,5 kg/Ha	Yield = 4,886 t/Ha Yield = 6,274 t/Ha

37. **Laboratory trial :**

1. The use of N, P and K fertilizer on Lowland rice in Teginenang Centre shows increasing yield of Lowland rice. This trial will be replated in the following season (1980/1981).

2. The use of N, P and K fertilizer on Upland rice in Teginenang Centre shows increasing yield of Upland rice. This trial will be repeated in the following season (1980/1981).

3. According to the data of soil fertility comparation of some location in Lampung province (Pardasuka, Kedondong, Banjit, Rumbia, Way Jepara, Abung Selatan and Teginenang Centre area, can be concluded that the Pardasuka soil sample is the best in fertility, then followed by the soil = Banjit, Kedondong, Way Jepara, Abung Selatan, Teginenang Centre and the last is Rumbia soil.

Table 19 : Recommendation of Fertilization Trial.

1.	Kec. Abung Selatan area (Upland)	:	The optimum dosis of fertilizer for Upland Rice were :
		Bicol variety	: N = 69 kg/Ha or Urea = 150 kg/Ha.
			P_2O_5 = 45 – 67,5 kg/Ha or TSP = 45 – 150 kg/Ha.
		Seratus Malam variety	: N = 46 kg/Ha or Urea = 100 kg/Ha.
			P_2O_5 = 45 kg/Ha or TSP = 100 kg/Ha.
2.	Kec. Baradatu area (Upland)	:	The optimum dosis of fertilizer for Upland Rice were :
		Bicol variety	: N = 69 kg/Ha or Urea = 150 kg/Ha.
			P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
		Seratus Malam variety	: N = 46 – 69 kg/Ha or Urea = 100 – 150 kg/Ha.
			P_2O_5 = 45 kg/Ha or TSP = 100 kg/Ha.
3.	Kec. Sekampung area (Upland)	:	The optimum dosis of fertilizer for Upland Rice were :
		Bicol variety	: N = 67,5 – 92 kg/Ha or Urea = 150 – 200 kg/Ha.
			P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.
		Seratus Malam variety	: N = 46 – 49 kg/Ha or Urea = 100 – 150 kg/Ha.
			P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.
4.	Kec. Bangun Rejo area (Upland)	:	The optimum dosis of fertilizer for Upland Rice were:
		Bicol variety	: N = 69 kg/Ha or Urea = 150 kg/Ha.
			P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
		Seratus Malam variety	: N = 46 – 69 kg/Ha or Urea = 100 – 150 kg/Ha.
			P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.
5.	Kec. Kalirejo area (Upland)	:	The optimum dosis of fertilizer for Upland Rice were :
		Bicol variety	: N = 69 kg/Ha or Urea = 150 kg/Ha.
			P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
		Seratus Malam variety	: N = 69 kg/Ha or Urea = 150 kg/Ha.
			P_2O_5 = 45 – 150 kg/Ha or TSP = 100 – 150 kg/Ha.

6. Kec. Way Jepara area (Upland) : The optimum dosis of fertilizer for Upland Rice were :
   Bicol variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
   Seratus Malam variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

7. Kec. Rumbia area (Upland) : The optimum dosis of fertilizer for Upland Rice were :
   Bicol variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
   Seratus Malam variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

8. Kec. Ketibung area (Upland) : The optimum dosis of fertilizer for Upland Rice were :
   Bicol variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
   Seratus Malam variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

9. Kec. Kedondong area (Upland) : The optimum dosis of fertilizer for Upland Rice were:
   Bicol variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.
   Seratus Malam variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
   P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.

10. Kec. Pardasuka area (Upland) : The optimum dosis of fertilizer for Upland rice were:
    Bicol variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
    P_2O_5 = 45 kg/Ha or TSP = 100 kg/Ha.
    Seratus Malam variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
    P_2O_5 = 45 kg/Ha or TSP = 100 kg/Ha.

11. Kec. Pardasuka area (Lowland) : The optimum dosis of fertilizer for Lowland Rice were :
IR 36 variety : N = 69 – 92 kg/Ha or Urea = 150 – 200 kg/Ha.
P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.
Asahan variety : N = 92 kg/Ha or Urea = 200 kg/Ha.
P_2O_5 = 45 kg/Ha or TSP = 100 kg/Ha.

12. Kec. Kedondong area (Lowland) : The optimum dosis of fertilizer for Lowland Rice were :
IR 36 variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
Asahan variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

13. Kec. Penengahan area (Lowland) : The optimum dosis of fertilizer for Lowland Rice were :
IR 36 variety : N = 69 kg/ha or Urea = 150 kg/Ha.
P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
Asahan variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

14. Kec. Sekampung area (Lowland) : The optimum dosis of fertilizer for Lowland Rice were:
IR 36 variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
Asahan variety : N = 69 kg/Ha or Urea = 150 kg/Ha.
P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

15. Kec. Way Jepara area (Lowland) : The effective time of N fertilizer application for IR 26 variety were :
Basal : 3 days before transplanting (15%N).
First Top Dressing : 15 days after transplanting (25%N).
Second Top Dressing : 40 days after transplanting (45%N).
Third Top Dressing : 60 days after transplanting (15%N).
Dosis of fertilizer : N = 92 kg/Ha
P_2O_5 = 45 kg/Ha.

16. Kec. Way Jepara area (Lowland)	: The optimum dosis of fertilizer for Lowland Rice were :		
	IR 36 variety	:	N = 69 kg/Ha or Urea = 150 kg/Ha. P_2O_5 = 45 – 67,5 kg/Ha or TSP = 100 – 150 kg/Ha.
	Asahan variety	:	N = 69 kg/Ha or Urea = 150 kg/Ha. P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
	Pelita I/1 variety	:	N = 69 kg/Ha or Urea = 150 kg/Ha. P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.
	PB 5 variety	:	N = 69 kg/Ha or Urea = 150 kg/Ha. P_2O_5 = 67,5 kg/Ha or TSP = 150 kg/Ha.

Table 20 : Trial Result of Plant Protection on The Upland and Lowland areas.

No.	KIND OF TRIAL	LOCATION			PLANTING SEASON	CONCLUSION	NOTE
		DISTRICT	SUB-DISTRICT	VILLAGE			
1	2	3	4	5	6	7	8
1.	Upland rice varieities observation	Central Lampung	Baradatu	Campur Asri	79/80	– Production of Bicol variety is highest among 9 varieties – There is no difference of stem borer (penggerek batang) attack among 9 varieties.	– Yield : 5,16 ton/ha – The Stem borer attack less than 10%.
2.	Lowland rice varieties observation	Central Lampung	Batang Hari	Banar Joyo	79/80	– Production of Serayu variety is highest among 7 varieties.	– Yield : 5,86 ton/ha
3.	Upland rice varieties observation	North Lampung	Rumbia	Sri Kencono	79/80	– Production of Sriendah putih variety is highest among 10 varieties – The attack of dead hearts (beluk) on cartuna and Cemporuri varieties are larger among 10 varieties – The attack of rice bugs (walang sangit) on cemporuri, IR 36 varieties is highest among 10 varieties.	– Yield : 4,85 ton/ha – The dead hearts attack more than 20%. – The rice bugs attacks more than 20%.
4.	Upland rice varieties observation	South Lampung	Bangunrejo	Tanjung Jaya	79/80	– Production of Sirendah putih is highest among 9 varieties – There is no correlation between production and rice borer or rice bugs attack	– Yield : 4,34 ton/ha – The highest attack of rice borer and rice bugs are 5,8% and 10% respectively.
5.	Upland rice varieties observation	South Lampung	Ketibung	Trans Tanjungan	79/80	– Production of Gata variety is highest among 9 varieties – There is no difference between rice borer and rice bugs attack.	– Yield : 5,10 ton/ha
6.	Lowland rice varieties observation	Central Lampung	Seputih Raman	Rukti-harjo	79/80	– Production of Serayu variety is highest among 6 varieties	– Yield : 6 ton/ha
7.	Lowland rice varieties observation	Central Lampung	Punggur	Totokaton	79/80	– Production of IR 36 variety is highest among 7 varieties and the attack of dead hearts on Serayu variety is highest	– Yield : 11,24 ton/ha – The dead hearts attack 11,4%.

1	2	3	4	5	6	7	8
8.	Lowland rice varieties observation	Central Lampung	Metro	Hadi-mulyo	79/80	– Production of IR 36 variety is highest among 7 varieties	– Yield : 10.94 ton/ha
9.	Lowland varieties observation	South Lampung	Talang-Padang	Gisting Bawah	79/80	– There is a difference of dead hearts (sundep) attack after 30 days planting dead hearts attacks on Pelita variety is highest. – There are not differences of production and leaf blast (busuk pelepah) attack among varieties	– The dead hearts (sundep) attack on Pelita variety is 8.1%.
10.	Period and time of spraying on soybeans Pest. (Local variety)	Central Lampung	Jabung	Asahan	79/80	– The Penggerek Polong attack on soybeans that sprayed is smaller	– Penggerek Polong attack on control plant is 23.2%, 1 treatment (55 days) 11.5%, 3 treatments (55,65 and 80 days) 10.8%, 4 treatments (30, 55, 65 and 80 days) 7.7%. – The yield of sprayed Soybeans (4 treatments) is 160 kg/Ha (drought condition)
11.	Period and time of spraying on Piryculoria (var. Bicol)	South Lampung	Ketibung	Trans Sudidaya	79/80	There is a clear difference between leaf blast: treatments no. 2 and no. 4 are smaller than no. 1 and no. 3 neck blast: treatments no. 1 is bigger then no. 2, no. 3 and no. 4, treatments no. 2 is bigger than no. 4 There is a difference of yield : treatments no. 4 is bigger than no. 2 and no. 1, treatment no. 3 is bigger no. 3 is bigger than no. 1	Treatments: 1) Control 2) 2 x (30 and 40 days) 3) 2 x (75 and 90 days) 4) 4 x (30, 40, 75 and 90 days) Yield : 1) 3,21 ton/ha 2) 3,54 ton/ha 3) 3,76 ton/ha 4) 3,80 ton/ha
12.	Period and time of spraying on Piryculoria (var. Bicol)	Central Lampung	Bongunrejo	Tanjung Jaya	79/80	There is a difference of neck blast (busuk leher) treatment no. 1 is bigger than no. 2, no. 3, no. 4 treatment no. 4 is smaller than no. 2 and no. 3	Treatment: 1) Control 2) 2 x (30 and 40 days) 3) 2 x (75 and 90 days) 4) 4 x (30, 40, 75 and 90 days).

13.	Period and time of spraying on the lowland rice main post.	South Lampung	Talang-Padang	Sidomulyo	79/80	Three times spraying is better in order to decrease dead hearts attack on IR 36, Asahan and Serayu varieties.	**Treatment:** 1) Control 2) 1 x (15 days) 3) 2 x (15 and 45 days) 4) 3 x (15, 45 and 60 days)
14.	The effect of planting time on the upland rice main pest attack (Sirendah variety)	North Lampung	Baradatu	Campur Asri	79/80	A good planting time is on early of November to decrease lalat bibit attack	**Treatment:** 1) planting Oct 22, 1979 2) planting Nov 5, 1979 3) planting Nov 29, 1979 4) planting Dec 13, 1979 5) planting Dec 27, 1979
15.	The effect of planting time on the upland rice main pest attack (Sirendah variety)	North Lampung	Abung Selatan	Kembung Tanjung	79/80	A good planting time is not over from the end of November to decrease lalat bibit attack	**Treatment:** 1) planting Oct 25, 1979 2) planting Nov 11, 1979 3) planting Dec, 6, 1979 4) planting Dec 30, 1979
16.	The effect of planting time on the Soybeans' main pest attack (local variety)	South Lampung	Ketibung	Trans Budidaya	79/80	A good planting time is on early of January to decrease lalat kacang and penggerek polong attack	**Treatment:** 1) planting Nov 5, 1979 2) planting Nov 20, 1979 3) planting Dec 5, 1979 4) planting Dec 20, 1979 5) planting Jan 7, 1980
17.	The effect of planting time on the corn bulai attack (H.6 variety)	Central Lampung	Labuhan Meringgai	Seribawono	79/80	A good planting time until on the middle of November to decrease Bulai attack	**Treatment:** 1) planting Oct 25, 1979 2) planting Nov 15, 1979 3) planting Dec 6, 1979 4) planting Dec 27, 1979 5) planting Jan 17, 1979
18.	The effect of planting time on the corn bulai attack (H.6 variety)	Central Lampung	Gunung Sugih	Bulusari	79/80	A good planting time until on the end of November to decrease Bulai attack.	**Treatment:** 1) planting Oct 12, 1979 2) planting Oct 27, 1979 3) planting Nov 11, 1979 4) planting Nov 27, 1979 5) planting Dec 15, 1979
19.	The effect of Dosage and concentration of insecticide on the upland rice main pest attack (Cartuna variety)	Central Lampung	Rumbia	Reno Basuki	78/79	Using dosage 400 litre/ha with concentration of 2 cc/litre is effective to decrease rice bugs attack	The rice bugs attack: % — Yield (kg/20 m2) 0 — 3,75 10 — 2,78 20 — 1,81 30 — 0,84
20.	The effect of insecticide spraying time on the soybeans main pest (local variety)	South Lampung	Ketibung	Trans Tanjungan	78/79	A good insecticide spraying time are on 16, 30, 45 and 58 days after planting in order to decrease penggerek polong attack.	

Table 21: Lampung Tani Makmur Project Trial Result,
Agronomic Division Fiscal Year 1977/78 – 1979/80

No.	Kind of trial	Location		Planting Season	Conclusion	Note
		District	Sub District			
1	2	3	4	5	6	7
1.	The effect planting distance and manuring dosage on variety IR 26	Central Lampung	Trimurjo	1977	To much dense of planting distance and to much higher of fertilizers dosage can cause positip correlation with stem borer attack and rotten leaf/leaf blast.	planting distance 23 x23 cm and fertilizen dosage 250 kg urea + 100 kg TSP can achieve product significant different with the standard
2.	The effect of manuring NPK to pest and diseases on low land paddy variety IR 26	Central Lampung	Punggur	1977	K fertilizer application can not clearly increase the yield and no effect to stem borer and rotten leaf/leaf attack.	
3.	Two units low land paddy varietiois adaptation (VUTW)	Central Lampung	Metro		Higher product has been shown by variety IR 26, 28, 30 and 36 compared with IR 34, Gati, Dewi Ratna and Local variety.	
			Purbolinggo	1977	VUTW variety that examined show higher product than local variety that examined.	
4.	Water application on ground nut and soy bean	Central Lampung	Seputih	1977	– Not clearly different product had been shown by three times water application (0.33 1/sec/ha) during growth period compared without water application on soy bean. – clearly different product had been shown by 10 dayly water application during growth period compared with one till three timos water application (0.33 1/sec/ha).	

1	2	3	4	5	6	7
5.	The effect of soil cultivation depth on upland paddy (Bicol variety)	South Lampung	Natar	1977	5 cm depth of soil cultivation gave more total stem per hill and more total panicle.	
6.	The effect of planting depth on upland paddy (Bicol variety)	South Lampung	Natar	1977	3 cm depth of planting gave more total stem per hill and total seed per panicle than 1, 5, 7 and 9 cm planting depth.	
7.	Upland paddy (Padi Gogo) variety trial.	South Lampung	Natar	1977	Gata and Gati variety gave more total number of stem per hill, more panicle and seed than other examined varieties (15 local varieties).	
8.	The effect of insecticide seed treatment on growth capability of upland paddy	South Lampung	Natar	1977	No effect on seed growth capability by using sevin 50 WP, Padan 50 SP, Furadan 3 G, Sevin 5 dust, aldrin 40 WP.	
9.	Effectiveness of insecticide as seed treatment on mung bean seed from ant attack.	South Lampung	Natar	1977	Clearly different had been shown by using sevin 50 WP, Padan 50 SP, Sevin 5 dust, Furadan 3 G, Diazinon 5 G, Aldrin 40 WP and DDT compared without application of insecticide.	
10.	Effectiveness of insecticide on lalat bibit attack to soyabean.	South Lampung	Sukoharjo	77/78	Furadan 3 G, Diazinon 5 G was more effective to avoid lalat bibit.	

11.	Cassava variety trial	South Lampung	Natar	1977	The highest of average tuber per plant weight was achieved by Pandesi (local) than W 1672, W 1705, x 396, W 1435 and W 1207 variety	— The weight of tuber per plant were arround 3.06 kg — 4.09 g at 16.000/ha population (planting distance 100 x 60 cm).
12.	Cropping system trial	South Lampung	Natar	1977	Input per ha for each system that been examined was between Rp. 184.000,— — Rp. 260.000,—	The highest net income that occur, is the system upland rice, wheat (sorghum) ground nut, tobacco, that is Rp. 105.000,—
13.	Simple trials at the villages (28 unit)	South Lampung North Lampung	9 Kecamatan	1977	The stable production was showed by the system Rice, maize & cassava if been compared with the other system	— expancing planting area of mung bean is more possible than soy bean and ground nut
14.	Maize variety trial	Central Lampung	Bangunrejo	78/79	The highest production was achieved by var. H. 6 (MSz), H.G x swan 1 (MS1), 28% and 16% respectively were higher than Phil DMR 5 production.	— Average production of DMR 5: 1.249 ton/Ha. — H 159, and S2 Bogor intecros DMR 4 production were higher than DMR 5.
15.	Maize variety trial	North Lampung	Banjit	78/79	Intocros S1 Bogor DMR 4 variety, and Bogor DMR 12 production was 4% higher than Harapan variety	— Average production of Harapan variety was 2549 ton/Ha
16.	Maize variety trial	North Lampung	Baradatu	78/79	Intocros S1 Bogor DMR 4 variety, Bogor DMR 10 more tolerant on Bular diseases and the production is 109% higher than Metro variety which been attacked heavily by bulai diseases	Metro variety production was 1.074 ton/ha

1	2	3	4	5	6	7
17.	Maize variety trial	South Lampung	Natar	1978	– Thai composite 3 variety production was 4% higher than Harapan variety production – Swan 1, caripeno DMR, cuprico flint camp and South Asian Population II variety production was 20 higher than Harapan variety production.	
18.	Upland rice variety trial	North Lampung	Banjit	78/79	The highest production was seen on GH 48, GH 80 variety production and that's 61% higher than local high yielding variety Aworak.	– Local high yielding variety Aworak production is 965 kg/ha.
19.	Upland rice variety trial	North Lampung	Baradatu	78/79	GH 48, GH 80 variety production was twice higher than local high yielding variety Si Rendah	–. Average production of Si Rendah variety was 600 kg/ha.
20.	Plant hopper resistance variety (VUTW) on sawah field trial.	South Lampung	Natar	1979	The highest production was achieved by IR 26 and IR 38 variety	– Average production of both variety was 5.4 ton/ha.
21.	VUTW trial on upland field	South Lampung	Natar	1979	The highest production of VUTW on upland field was achieved by IR 36 and IR 26 variety.	– IR 36 variety production on upland field was 91.6% of its production on sawah field.
22.	Maize agronomic cultivation trial.	South Lampung	Natar	1979	Soil cultivation with hoe at crop row did not give clearly different if been compared without cultivation, but three times rotary cultivation can increase the production 11,5% if been compared without cultivation.	– The lowest production was 2.4 ton/ha and the highest production was 3,8 ton/Ha (on 75.000 population and three times rotary cultivation).

1	2	3	4	5	6	7
23.	Maize variety trial.	South Lampung	Natar	1979	The highest production was achieved by Suwan DMR course 9 x H6. Suwan DMR course 9 x H6, Suwan 1 (S) C4 and (TC, DMR x Medok) x H6 variety.	– The production of those three varieties was 40% higher than Harapan variety.
24.	Low land rice variety trial.	South Lampung	Natar	1979	Only GH 67 and GH 112 variety from examined variety that can give equal production with Serayu variety which used as standard	– Serayu variety production was 2.5 ton/Ha. GH 67 and GH 28 tolerance to corcospora, but GH 90 susceptible.
25.	Variety resistance trial on Piricularia disease	South Lampung	Natar	1979	Variety Si Rendah, Genjah Kenanga, Lampung Kuning Dayang rindu, Bayur, Klomas, GH 80, GH 77, GH 77, GH 76, GH 78, GH 125, GH 172 and GH 126 was resistant on Piricularia.	– Seratus malam Variety and GH 102 was susceptible on Piricularia.
26.	Soybean variety trial.	South Lampung	Natar	79/80	The highest average production was No. 29 but the age was longer. (110 days) No. B/1667 was attacked by lokal bibit heavier than other varieties.	– average production of No. 29 was 869 kg/Ha.
27.	Benlate T (Thiram Benonyl WP) usage on several soyabean varieties	South Lampung	Natar	79/80	Seed Germination percentages increased by 46,2% and dead plant persentage decreased by 45,7% (at lack rain condition during planting season) by using Benlate T.	– Enough rain (46.5 mm) fall, ten days after planting. – Untreated seed generally attacked by Fusarium sp and Rhizoctonia Sp.

1	2	3	4	5	6	7
28.	Upland rice agronomic cultivation trial	South Lampung	Natar	79/80	Soil compaction before planting on the crumbs soil condition, can increase total panicle by 32%.	– Total number of panicle per square meter on compacted soil was 107.6 and uncompacted soil 56.1.
29.	Attacked by Cercospora kikuchi soyabean seed, germination capability trial.	South Lampung	Natar	79/80	Germination capability of Orba/ Taining 3–3–2 variety was 23.6% lower than the other varieties.	– Average seed germination capability of health seed was 90.3%.
30.	Groundnut variety trial, on yellow motale virus attack.	South Lampung	Natar	79/80	– There was not any tolerant variety on yellow mottle virus – Average production would be decreased by 73% if the crop been attached by yellow mottle virus.	– Production decrease was caused by light seed and small number of polong
31.	Maize variety trial	South Lampung	Natar	79/80	The highest production was achieved by H6x Suwan 1 (MS 1) variety, it's 18% higher than Harapan variety.	– Average production of Harapan variety (with Ridomil 35 SD) was 5.6 ton/ha.

Table 22: Result of Agriculture Machinery and Equipment Trial Conducted by LTMP, 1978/79 and 1979/80

No.	Kind of trial	Location			Planting season	Conclusion			Note
		Kab.	Kecamatan	Desa					
1	2	3	4	5	6	7			8
1.	Efficiency of 5 kind of soil preparation equipment on upland farming.	S.L	Natar	Bumi Agung	1978/79	Capacity :			
						a. 4.W. tractor	5.08	Hours/Ha	Plow 1
						b. Mini tractor	6.33	"	Rotary 1
						c. Hand tractor	27.33	"	Plow 1
						d. animal	72.67	"	1 pair
						e. Hoe	89,83	"	5 men
						Efficiency :			
						a. 4.W. tractor	39.57	%	
						b. Mini tractor	78.99	%	
						c. Hand tractor	84.16	%	
						d. Animal	68.80	%	
						e. Hoe	71.25	%	
2.	Efficiency of 3 kind of post/disease control equipment on upland farming	S.L.	Natar	Bumi Agung	1978/79	Capacity :			
						a. Hand sprayer	3.4	Hours/Ha	Spraying 1
						b. Mist blower	1.6	"	"
						c. Power sprayer	0.7	"	"
						Efficiency:			
						a. Hand sprayer	37.78	%	
						b. Mist blower	52.08	%	
						c. Power sprayer	89.29	%	

1	2	3	4	5	6	7	8
3.	Efficiency of Combine harvester on lowland farming	C.L	Punggur	Toto-Katon	1979/80	Capacity : 0.18 Ha/Hour Efficiency : 89.9 % Grain lost : 7.3 %	
4.	Efficiency of threshing equipment on upland farming	S.L.	Natar	Bumi Agung	1978/79	Efficiency : a. "Ilos" system : 70.22% b. Pedal thresher : 82.60% c. Auto thresher : 30.39%	
5.	Efficiency of Planting equipment	C.L.	Gunung Sugih	Sido korto	1978/79	Efficiency : a. Speed drill 2.1 Hours/Ha b. Plater – c. Tugal (stick) 6.3 Hours/Ha	4 persons
6.	Utilization of hand tractor on alang-alang area	N.L	Abung Selatan	Semuli Raya	1979/80	Capacity : Speed a. Low 2 0.04 Ha/Hour b. Low 3 0.07 ,, c. High 1 0.08 ,, d. High 2 0.12 ,, Efficiency : Speed a. Low 2 50 % Land size b. Low 3 41 ,, 20 x 10 sq.m. c. High 1 33 ,, d. High 2 33 ,, a. Low 2 75 % Land size b. Low 3 47 ,, 40 x 10 sq.m. c. High 1 50 ,, d. High 2 47 ,,	
7.	Utilization of Rice Transplanter on lowland farming.	C.L	Punggur	Toto-	1979/80	No data rice did not grow	

1	2	3	4	5	6	7	8
8.	Utilization of 4-W. tractor on low land farming with iron wheel	C.L	Punggur	Toto-Katon	1979/80	**Harrow** Capacity : 0.147 Ha/Hour Efficiency : 73.5 % Oil : 5,2 l/Hour **Leveling** Capacity : 0.85 Ha/Hour Efficiency : 89.5 % Oil : 6.0 l/Hour	2 x rotary 1 x leveling
9.	Correlation between various spraying equipment and yield of maize	C.L	Gunung Sugih	Bulu-sari	1979/80	Hand Sprayer 200 l/Ha Hand sprayer 500 l/Ha Mist blower 50 l/Ha Power sprayer 750 l/Ha	A : 153.6 kg/500 m2 B : 156.2 kg/500 m2 C : 147.6 kg/500 m2 D : 175.4 kg/500 m2
10.	Utilization of 4-W. tractor on alang-alang area	C.L.	Bangun rejo	Cima-rios	1979/80	Speed 5.58 Km/Hour Real cap. 0.24 Ha/Hour Teoritical cap. 0.3 Ha/Hour Efficiency : 80 % Real Cap : 0.26 Ha/Hour Teoritical Cap : 0,3 Ha/Hour Efficiency : 86.67 % Real cap. : 0.51 Ha/Hour Teoritical cap. : 1.17 Ha/Hour Efficiency : 43.59 %	Plow I Plow II Rotary

Source : Lampung Tani Makmur Project.

Table 23 : Using of Tractor Lampung Tani Makmur Project
1973 – 1980 Period

No.	KIND OF MATERIALS	CODE NUMBER	WORK HOURS	LOCATION	NOTE
1.	Iseki Tz–8011	04/73	1.600	– Totokaton	RICE FIELD FORMATION
			1.500	– Up Land Dem Farm	–„–
			300	– Teginenong	–„–
			500	– Outside of Dem Farm	–„–
	TOTAL		3.900		GOOD
2.	Iseki Tz–8011	05/73	2.992	– Teginenong	LAND CLEARING
			552	– Totokaton	RICE FIELD FORMATION
			2.035	– Up Land Dem Farm	–
			150	– Outside of Dem Farm	
			500	– Teginenong	
	TOTAL		6.229		BREAK
3.	Iseki Tz–6714	11/75	2.005	– Upland Dem Farm	SOIL CULTIVATION
			600	– Teginenong	and FARM ROAD 40 ha
			300	– Outside Dem Farm	
			600	– Totokaton	
	TOTAL		3.555		GOOD
4.	Iseki Tz–6714	12/75	2.000	– Upland Dem Farm	
			600	– Teginenong	
			750	– Outside Dem Farm	

No.	KIND OF MATERIALS	CODE NUMBER	WORK HOURS	LOCATION	NOTE
5.	Iseki Tz–4714	15/76	300 2.000	– Totokaton – Teginenang	TRANSPORTATION
	TOTAL		2.300		GOOD
6.	Iseki Tz–5714	21/77	2.050 400 300 400	– Upland Dem Farm – Totokaton – Teginenang – Outside Dem Farm	
	TOTAL		3.150		GOOD
7.	Iseki Tz–5714	22/77	800 400 300 300	– Upland Dem Farm – Trial of upland Crops – Outside Dem Farm – Teginenang	
	TOTAL		1.800		Has been repairing
8.	Mini Tractor Iseki TX 1500 F	19/77	100 170	– Totokaton – Teginenang	LOWLAND
	TOTAL		270		Has been repairing
9.	Mini Tractor satoh S–630 D	26/79	210	– Teginenang	
	TOTAL		210		GOOD

Teginenang, April 1980

LAMPUNG TANI MAKMUR PROJECT
AGRICULTURE MACHINERY AND EQUIPMENT DIVISION

(Ir. W. Subandrio)

Table 24: Using of 4 Wheel Tractor for Soil Cultivation at Teginenang Center and Lampung Tani Makmur Demfarm, 1978 – 1980 Period

No.	TYPE OF TRACTOR	No. CODE	DEM FARM						TEGINENENG CENTRE			NOTE
			UPLAND			LOW LAND						
			LOCATION	1978	1979	1980	LOCATION	1978	1979	1980	1978	1979	1980	
1.	Tractor zetor Iseki Tz 8011	04/75	1. Bulusari	400	100	–								
			2. Selusuban	500	450	–								
			Total (hour)	900	600	–					60	150		Upland of Teginenang Center
			Area (Ha)	60	40									
2.	Tractor Zetor Iseki Tz–6714	11/75	1. Selusuhan	250	200	205								
			2. Sukobandung	400	450	–								
			Total (hour)	650	650	205					240	100		Upland Farm Road
			Area (Ha)	43	43	14					14	5		
3.	Tractor Zetor Iseki Tz–6714	12/75	1. Bangun Rujo	400	250	250								
			2. Selusuban	250	150	150								
			3. Bulusari	250	300	–								
			Total (hour)	900	700	400								
			Area (Ha)	60	47	27								
4.	Tractor Zetor Iseki Tz–4714	15/76					1. Totokaton	300	–	–				
								–	–	–				
							Total (hour)	300	–	–	400	400	240	Transportation
							Area (Ha)	20	–	–				

5.	Tractor Zetor Iseki Tz–5714	21/77	1. Bulusari	150	300	–	1. Totokaton	400						
			2. Bangun Rejo	300	450	150								
			3. Sukabandung	400	300									
			Total (hour)	850	1050	150		400					300	
			Area (Ha)	57	70	10		40					20	
6.	Tractor Zetor Iseki	22/77	1. Way Jopara	–	400	400								Upland culture trial
			2. Tanjung Iman	40	40									
			3. Rumbia	40	40									
			4. Sukabandung	40	40									
			5. Bangun Rejo	40	40									
			6. Way Jopara	40	40									
			Total (hour)	200	600	400								
			Area (Ha)	10	40	30								
7.	Mini Tractor Iseki TX–1500 F	19/77					1. Totokaton	100	–	120	50	–		Low Land
							Area (Ha)	10		10	4			
8.	Mini Tractor Satoh S–630 D	26/79					Total (hour)			60	100			
							Area (Ha)			6	10			Low land

Table 25: Capital Support of Tani Makmur Demfarm

A.	Upland : 56 villages; covered	=	5,486.125 Ha
B.	Lowland 40 „ „	=	843.445 „
C.	Latge Dém Farm 1 Villages; covered	=	100.00 „

A.	UPLAND (per Ha) :	Urea 100 kg x Rp. 7,–	Rp. 7.000
		TSP 100 kg x Rp. 70,–	Rp. 7.000
		Pesticide 1,5 l x Rp. 900,–	Rp. 1.350
		Diazinon GR 2 kg x Rp. 500,–	Rp. 1.000 (1.250)
		Racumin 0,1 kg x Rp. 1.500,–	Rp. 150
		TOTAL	Rp. 16.500

(a) TOTAL SUPPORT : 5,486.125 x Rp. 1,650 = Rp. 90,521,062.50

B.	LOWLAND	Urea 200 kg x Rp. 70,–	Rp. 14,000
		TSP 100 kg x Rp. 70,–	Rp. 7,000
		Pesticide 2,5 l x Rp. 900,–	Rp. 2,250
		Racumin 0,1 kg x Rp. 1,500	Rp. 150
		TOTAL	Rp. 23,400

(b) TOTAL SUPPORT : 1,063.445 Ha – 220 Ha (Totokaton)
= 843.445 Ha x Rp. 23.400 = Rp. 19,736,613,–

(c). 100 Ha (Totokaton) = 100 Ha x Rp. 23,400 x 2,2 (for 40 ha x 4,6 x 1)
= Rp. 5,148,000

TOTAL LOWLAND @ Rp. 24,884,613

Table 26: Total Support of Pesticide to the Low Land Dam farm
1973 – 1977/1978

No.	District/Village	1973				1973/74				1974				1974/75			1975		1975/76		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
I.	TRIMURJO :																				
1.	Purwoadi	0,5	10	5	2	4	1,75	200cc		10	2	2		10							
2.	Purwodadi	0,5	10	5	2	4	1,75	200cc		10	2	2		10							
3.	Tempuran	0,5	10	5	2	8	3,5	200cc	10,15					10	2						
4.	Liman Benawi	0,5	10	5	2	4	1,75	200cc													
II.	M E T R O :																				
5.	Ganjar Agung									6,5	2	1,7	5	12,5	2					10	2
6.	Hadi Mulyo									6,5	2	1,7	5				20	4	200ml	10	2
7.	Tejosari													12,5	2		10	2	100ml	10	2
8.	Yosodadi									6,5	2	1,7	5							20	4
9.	Margorejo									6,5	2	1,7	5	12,5	2		10	2	100ml	10	2
III.	PUNGGUR :																				
10.	Astomulyo					5		200cc						4	1		17	3,5		15	3
11.	Ngestirahayu					5		200cc						3	1		17	3,5	100ml	30	6
12.	Sumberejo					5		200cc						10	2		10	2		10	2
13.	Totokaton					5	2,5	200cc						10	2		50,5	10,10		68	16
IV.	PEKALONGAN :																				
14.	Tulusrejo													2,5	2	10				20	4
15.	Sriwan													2,5	2	10	10	2		10	2
V.	BATANG HARI :																				
16.	Banar Jaya																10	2		10	2
17.	Telogorejo																10	2		10	2
18.	Bumi Harjo																10	2		10	2
19.	Bumi Mas																10	2		10	2
20.	Baterejo																10	2		10	2
VI.	SUKARAJA NUBAN :																				
21.	Sukaraja Nuban																10	2		10	2
22.	Purwosari																			20	4
23.	Kedaton																10	2		10	2
24.	Tuluno Balak																			20	4

No.	District/Village	1976				1976/77								1977			1977/78			Note
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
I.	TRIMURJO :																			1. Zink phospit
1.	Purwodadi																			2. Sumithion 40 EC
2.	Purwodadi																			3. Sumithion 50 EC
3.	Tunpuran																			4. Solit Racumin.
4.	Liman Benawi							7		1,75	2	50		15	5	1	15	5	1	5. Sumithon 45 EC
II.	M E T R O :																			6. BPN EC
5.	Ganjar Agung		8,5																	7. Flor Dace
6.	Hadi Mulyo																			8. Phosvel
7.	Tejosari	5	150	5	2															9. Phosvel 300 EC
8.	Yosodadi											75								10. Solit Racumin.
9.	Margorejo	5	150	5	2				10	2,5	2									11. Belorang
III.	PUNGGUR :																			12. Sevin.
10.	Astomulyo																			13. EPN EC
11.	Ngestirahayu																			14. Solid Racumin
12.	Sumberejo																			15. Phosvel
13.	Tunokuton		30				40	30		20	16		20							16. Diazinon EC
IV.	PEKALONGAN :																			17. Solit Racumin.
14.	Tulusrejo																			18. Sodium Flour dace
15.	Seraman																			19. Diazinon
V.	BATANG HARI :																			20. Racumin
16.	Benar Jaya	5	150	5	2		10		5	2,5	2	75		15	5	1	15	5	1	21. Diazinon EC
17.	Tulugarejo						10		5	2,5	2	75								22. Diazinon Granular
18.	Bumi Harjo						10		5	2,5	2	75		15	5	1	15	5	1	23. Validazin.
19.	Bumi Mas						10		5	2,5	2	75								24. Endox
20.	Baterejo						10		5	2,5	2	75								25. Diazinon GR
VI.	SUKARAJA NUGAN :																			26. Surecide
21.	Sukaraja Nugan							10	10	5	4	150								27. Phosvell
22.	Purwosari	5	150	5	2			5	5	2,5	2	75								28. Bayzed.
23.	Kedaton							11,5	11,5	5	4	175								29. Validazin.
24.	Tulung Buluk	5	150	5	2									15	5	1	15	5	1	30. Endox
																				31. Furadan
																				32. Diazinon EC.
																				33. Diazinon EC
																				34. Validacin
																				35. Endox
																				36. Diazinon EC
																				37. Validacin
																				38. Endox

No.	District/Village	1973				1973/74				1974				1974/75			1975		1975/76		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VII.	SEPUTIH RAMAN :																				
25.	Rama Utama																				
26.	Rukti Harjo																				
27.	Rejo Asri																				
28.	Rejo Basuki																				
29.	Rama Gunawan																				
VIII.	RAMAN UTARA :																				
30.	Rejo Binangun																				
31.	Raman Aji																				
32.	Ratna Daya																				
33.	Rukti Sedlyo																				
IX.	SEKAMPUNG:																				
34.	Wonokarto																10	2		10	2
35.	Sumbergede																10	2			
36.	Sidodadi																10	2		10	2
37.	Hargomulyo																10	2		10	2
X.	PURBOLINGGO:																				
38.	Taman Fajar																				
39.	Totoharjo																				
40.	Totomulyo																				
41.	Tanjungkesuma																				

	District/Village	1976				1976/77								1977			1977/78			Note
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	
VII.	SEPUTIH RAMAN :																			
25.	Rama Utama	5	150	5	2			10	10	5	4	150		15	5	1				
26.	Rukti Harjo	5	150	5	2			10	10	5	4	150		15	5	1				
27.	Rejo Asri	5	150	5	2			5	5	2,5	2	75		15	5	1	15	5	1	
28.	Rejo Basuki	5	150	5	2			5	5	2,5	2	75		15	5	1	15	5	1	
29.	Rama Gunawan																			
VIII.	RAMAN UTARA :																			
30.	Rejo Binangun	5	150	5	2			10	10	5	4	150		15	5	1	15	5	1	
31.	Raman Aji	5	150	5	2			10	10	5	4	150		15	5	1	15	5	1	
32.	Ratna Daya	5	150	5	2			10	10	5	4	150		15	5	1	15	5	1	
33.	Rukti Sediyo	5	150	5	2			10	10	5	4	150		15	5	1	15	5	1	
IX.	SEKAMPUNG:																			
34.	Wonokarto	5	200	5	2		5		5	2,5	2	75								
35.	Sumbergede	10	400	10	4															
36.	Sidodadi	5	200	5	2		10		10	5	4	150								
37.	Hargomulyo	5	200	5	2		5		5	2,5	2	75								
X.	PURBOLINGGO:																			
38.	Taman Fajar	5	150	5	2		10		5	2,5	2	75		15	5	1	15	5	1	
39.	Totoharjo						10		10	5	4	150		15	5	1	15	5	1	
40.	Totomulyo	5	150	5	2		10		5	2,5	2	75		15	5	1	15	5	1	
	Tanjungkesuma						10		10	5	4	150		15	5	1	15	5	1	

Table 27 : Supporting of Agriculture Input to The Lowland Dam farm
(1973 – 1977/78)

No.	Subdistrict/Village	1973			1973/74			1974			1974/75			1975		
		Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)
I.	TRIMURJO :															
1.	Purwodadi	5,025	1015,5	512,5	5,2	1066	546	5	1025	525	5	1025	525			
2.	Purwodadi	5,025	1015,5	512,5	5,075	1040	533,5	5	1025	525	5	1025	525			
3.	Tempuran	5,025	1012,5	512,5	10,325	2090	1058,5				5	1025	525			
4.	Liman Benawi	5	1012,5	512,5	5	1025	525									
II.	METRO :															
5.	Ganjar Agung							5	1025	525	5	1025	525			
6.	Hadi Mulyo							5	1025	525				10	2050	1050
7.	Tejosari							5	1025	525	5	1025	525	5	1025	525
8.	Yosodadi							5	1025	525						
9.	Margorejo							5	1025	525	5	1025	525	5	1025	525
III.	PUNGGUR :															
10.	Astomulyo				5	1025	525				2	410	210	3,5	1750	900
11.	Ngestirahayu				5,025	1037,5	531,5				1,5	310	160	8	1650	850
12.	Sumberejo				5,125	1048,25	520,5				5	1025	525	5	1025	525
13.	Totoketon				5	1000	1000				5	1025	1025	25,5	5176	5176
IV.	PEKALONGAN :															
14.	Tulustojo										5	1025	525			
15.	Siraman										5	1025	525	5	1025	525
V.	BATANG HARI :															
16.	Banar Joyo										3			5	1025	525
17.	Telogorejo													5	1025	525
18.	Bumi Harjo													5	1025	525
19.	Bumi Mas													5	1025	525
20.	Baru Rejo													5	1025	525

No.	Subdistrict/Village	1975/76			1976			1976/77			1977			1977/78			Note
		Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	
I.	**TRIMURJO :**																
1.	Purwoadi																
2.	Purwodadi																
3.	Tempuran																
4.	Liman Benawi							3,5	750	350	5	1025	525	5	1025	525	
II.	**METRO :**																
5.	Ganjar Agung	5	1025	525	0,5	1700	510										
6.	Hadi Mulyo	5	1025	525													
7.	Tejoseri	5	1025	525	5	1025	685										
8.	Yosodadi	10	2050	1050													
9.	Margorejo	5	1025	525	5	1025	585										
III.	**PUNGGUR :**																
10.	Astomulyo	7	1450	845													
11.	Ngestirahayu	14,5	3000	1525													
12.	Sumberejo	5	1000	500													
13.	Totokaton	34	7070	4420	20	400	1200	40	8000	4000	40	8000	4000	60	12300	12300	
IV.	**PEKALONGAN :**																
14.	Tulusrejo	10	2050	1025													
15.	Sriamen	5	1025	525													
V.	**BATANG HARI :**																
16.	Banar Joyo	5	1025	525	5	1025	685	5	1025	525	5	1025	525	5	1025	525	
17.	Telogorejo	5	1025	525				5	1025	525							
18.	Bumi Harjo	5	1025	525				5	1025	525	5	1025	525	5	1025	525	
19.	Bumi Mas	5	1025	525				5	1025	525							
20.	Bale Rejo	1425	745					5	1025	525							

No.	Subdistrict/Village	1973			1973/74			1974			1974/75			1975		
		Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)
VI.	SUKARAJA NUBAN :													5	1025	525
21.	Sukaraja Nuban															
22.	Purwosari													5	1025	525
23.	Kedaton															
24.	Tulung Balak															
VII	SEPUTIH RAMAN :															
25.	Rama Utama															
26.	Rukti Sediyo															
27.	Rejo Asri															
28.	Rejo Basuki															
29.	Rama Gunawan															
VIII.	RAMAN UTARA :															
30.	Rejo Binangun															
31.	Raman Aji															
32.	Ratna Daya															
33.	Rukti Sediyo															
IX.	SEKAMPUNG :													5	1025	525
34.	Wonokarto													5	1025	525
35.	Sumbergede													5	1025	525
36.	Sidodadi													5	1025	525
37.	Hargomulyo (X)															
38.	Taman Fajar															
39.	Totoharjo															
40.	Toto Mulyo															
41.	Tanjung Kesuma															
	TOTAL	21	4050	2050	44,045	9331,30	5259	30	6150	3150	33,5	10970	6120	127	26001	15351

No.	Subdistrict/Village	1975/76			1976			1976/77			1977			1977/78			NOTE
		Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	Area (Ha)	Urea (Kg)	T.S.P. (Kg)	
VI.	SUKARAJA NUBAN :																
21.	Sukaraja Nuban	5	1025	525				10	2050	1050							
22.	Purwosari	10	2050	1050	5	1025	685	5	1025	525							
23.	Kedaton	5	1025	525				10	2050	1050							
24.	Tulung Balak	10	2050	1050	5	1025	685				5	1025	525	5	1025	525	
VII	SEPUTIH RAMAN :																
25.	Rama Utama				5	1025	685	10	2050	1050	5	1025	525				
26.	Rukti Sediyo				5	1025	685	10	1050	1050	15	1025	525				
27.	Rejo Asri				5	1025	685	5	1025	525	5	1025	525	5	1025	525	
28.	Rejo Basuki				5	1025	685	5	1025	525	5	1025	525	5	1025	525	
29.	Rama Gunawan										10	2050	1050	10	2050	1050	
VIII.	RAMAN UTARA :																
30.	Rejo Binangun				5	1025	685	10	2050	1050	5	1025	525	15	1025	525	
31.	Raman Aji				5	1025	685	10	2050	1050	5	1025	525	5	1025	525	
32.	Ratna Daya				5	1025	685	5	1025	525	5	1025	525	5	1025	525	
33.	Rukti Sediyo				5	1025	685	5	1025	525	5	1025	525	5	1025	525	
IX.	SEKAMPUNG :																
34.	Wonokarto	5	1025	525	5	1025	685	5	1025	525							
35.	Sumbergede				10	2050	1370										
36.	Sidodadi	5	1025	525	5	1025	685	10	2050	1050							
37.	Hargomulyo (X)	5	1025	525	5	1025	685	5	1025	525							
38.	Taman Fajar				5	1025	685	5	1025	525	5	1025	525	5	1025	525	
39.	Totoharjo							10	2050	1050	5	1025	525	5	1025	525	
40.	Toto Mulyo				5	1025	685	5	1025	525	5	1025	525	5	1025	525	
41.	Tanjung Kesuma							10	2050	1050	5	1025	525	5	1025	525	
		175	36395	19585	128,5	21070	14085	213,5	43600	22200	130	26450	13450	140	28900	20700	

Ha = 1063,445
Urea = 212.917,3
TSP = 108.365
OSP = 14.085

Tanjungkarang, May 8, 1979

Table 28: Supporting of Pest and Disease Control Equipment to The Upland Demfarm (Planting season 1979/1980)

	SUB DISTRICT/ village	Sending date	Hand Sprayer	Mist Blower	Power Sprayer US-34	Power C S 34-MK	Measuring glass 250 ML	
1	2	3	4	5	6	7	8	9
I.	KEC. NATAR							
1.	Haduryang	17-12-79	1	–	–	–	–	
2.	Gedong Tataan	17-12-79	1	–	–	–	–	
3.	Suka Bandung	18-12-79	3	1	1	–	–	
4.	Bumi Agung	5- 1-80	2	–	–	–	–	
5.	Suka Damai	28- 1-80	1	–	–	–	–	
II.	KEC. KEDATON							
1.	Margo Agung	17- 1-79	2	–	–	–	–	
2.	Margo Dadi	3- 1-80	2	–	–	–	–	
III.	KEC. GEDONG TATAAN							
1.	Keagungan Ratu	17-12-79	2	–	–	–	–	
2.	Waringin Sari	18-12-79	–	1	–	–	1	
3.	Pejambon	24-12-79	1	–	–	–	–	
4.	Halangan Ratu	3- 1-80	2	–	–	–	–	
IV.	KEC. GUNUNG SUGIH							
1.	Sidokerto	17-12-79	2	–	–	–	–	
2.	Bumi Rahayu	18-12-79	2	1	1	–	1	
3.	Terbanggi Subing	18-12-79	1	–	1	–	1	
4.	Bumi Raharjo	18-12-79	2	1	1	–	1	
5.	Sido Waras	20-12-79	2	2	1	–	1	
6.	Kesuma Dadi	20-12-79	1	1	–	–	1	
7.	Gunung Sugih Kamp.	20-12-79	2	1	–	–	1	
8.	Bulusari	20-12-79	1	1	1	–	1	
9.	Rengas	17-12-79	2	–	–	–	–	
10.	Terbanggi Agung	–	–	–	–	–	–	
V.	KEC. BANGUNREJO							
1.	Tanjung Jaya	2- 1-80	2	1	–	–	1	
2.	Sidorejo	2- 1-80	2	1	1	–	1	
3.	Sri Pendowo	2- 1-80	2	1	–	–	1	
4.	Sido Dadi	2- 1-80	1	–	–	–	–	
5.	Suka Negara	2- 1-80	2	1	–	–	1	
6.	Bangunrejo	2- 1-80	2	–	–	–	–	
7.	Sinar Seputih	2- 1-80	2	1	–	–	1	

1	2	3	4	5	6	7	8	9
VI.	KEC. SUKOHARJO							
1.	Adi Luwih	4–12–79	2	1	–	–	1	
2.	Bandung	4–12–79	2	1	–	–	1	
3.	Enggal Rejo	4–12–79	2	1	–	–	1	
VII.	KEC. KALI REJO							
1.	Bale Rejo	21–12–79	2	–	–	–	–	
2.	Sinar Sari	21–12–79	1	–	–	–	–	
3.	Ponco Warno	21–12–79	1	–	–	–	–	
4.	Watu Agung	2– 1–80	2	1	–	–	1	
5.	Sri Basuki	2– 1–80	1	–	–	–	–	
6.	Suko Sari	2– 1–80	–	1	–	–	1	
VIII.	KEC. TERBANGGI BESAR							
1.	Nambah Dadi	26–12–79	1	–	–	–	–	
2.	Adi Jaya	26–12–79	1	–	–	–	–	
3.	Fajar Asri	3– 1–80	2	1	–	–	1	
4.	Dono Arum	„	2	1	1	–	1	
5.	Endang Rejo	„	2	1	–	–	1	
6.	Sulusuban	„	2	1	–	–	1	
7.	Simpang Agung	„	2	1	–	–	1	
8.	Harapan Rejo	„	2	1	–	–	1	
IX.	KEC. SUKADANA							
1.	Dono Mulyo	3– 1–80	2	1	–	–	1	
2.	Muara Jaya	7– 1–80	2	1	–	–	1	
3.	Sukadana Ilir	„	2	–	–	–	–	
4.	Bumi Jawa	„	2	1	–	–	1	
5.	Sukaraja Nuban	„	1	1	–	–	1	
		TOTAL	81	28	8	–	29	

Table 29: Supporting of Pesticide the Upland Dem.farm
1973/74 – 1977/78

No.	Sub District/Village	Seed Treat ment	Elsan 2% dust	Baycid 2 % dust	Sumi tion 2% dust	Roden tisi da	Soead Treat Ment	Diaz. 5 G	Diaz, 40 EG	Racu min	Diaz GR	Diaz EC
1	2	3	4	5	6	7	8	9	10	11	12	13
I.	KEDATON											
1.	Margo Agung										37,5	18,75
2.	Margo Dadi										53	26,5
II.	NATAR :											
3.	Gedong Gumanti										60	30
4.	Kresnowidodo										60	30
5.	Bumi Agung										25,5	12,5
6.	Sukadamai							50	30	4	80	
7.	Rulung Helok	23			280	3	38					
8.	Haduyang	16	100	100		2	24	16	9,5	1,3		
9.	Merak Batin	12		150		2	14,7					
III.	GEDUNG TATAAN:											
10.	Halangan Ratu										36	18
11.	Keagungan Ratu										60	30
12.	Pejambon						7,30	100	94,35	12,58		
IV.	SUKOHARJO :											
13.	Waringin Sari										60	30
14.	Bandung Baru										60	30
15.	Enggal Rejo										51	25,5
16.	Adi Luwih										60	30
17 V.	GUNUNG SUGIH :											
17.	Sidokerto	15	200		10	2	6,30	120	90	12		
18.	Bulusari	14	220		10	2	33,10	20	52,95	7,04		
19.	Rengas	15	200		10	2	23	50	40,13	6,55		
20.	Bumi Rahayu							50	45	6	149	
21.	Bumi Raharjo							62	54	7	91	
22.	Terb. Agung							50	45	6	101,5	
23.	Terb. Subing							58	51	7	179	
24.	Kesumadadi							50	30	4	142	
25.	Sukajadi										60	
26.	Sidowaras										60	
27.	G. Sugih Kampung							50	45	6	81	

No.	Sub District/Village	Sumithion EC	Endox	Diaz. GR	Diaz EC	Bayoit	Surecide	Sumithion	Posvel	Endox	Note
1	2	14	15	16	17	18	19	20	21	22	23
I	KEDATON										
1.	Margo Agung		7,5	103	128			80		27	
2.	Margo Dadi		10,5	134	178			70		35	
II.	NATAR :										
3.	Gedung Gumanti		12	22	30			30		6	
4.	Kresnowidodo		12	150	200			100		40	
5.	Bumi Agung		5	140	186			90		36	
6.	Sukadamai	40	16	45	60			30		12	
7.	Rulung Helok										
8.	Hadoyong										
9.	Merak Batin										
III.	GEDUNG TATAAN:										
10.	Helangan Ratu		7,2	112	150			76		30	
11.	Kedungan Ratu		12	60	80			60		16	
12.	Pejambon										
IV.	SUKOHARJO :										
13.	Waringin Seri		12	90	120			60		24	
14.	Bandung Baru		12	60	80			40		16	
15.	Enggal Rejo		10,5	75	100			50		20	
16.	Adi Luwih		12	108	144			72		28	
17											
V.	GUNUNG SUGIH :										
17.	Sidokurto			45	60			70		12	
18.	Bulusari			60	80			61		16	
19.	Rengas										
20.	Bumi Rahayu	74,5	29,8	43	57			59		11	
21.	Bumi Raharjo	45,5	18	95	125			50		25	
22.	Terb. Agung	50,75	20,3					70			
23.	Terb. Subing	83,5	33,5	46	62			50		12	
24.	Kesumadadi	71	28,4	27	38			50		7	
25.	Sukajadi	30	12	112	150			70		30	
26.	Sidowaras	30	12	224	298			60		59	
27.	G. Sugih Kampung	40,5	16,2	88				80	116	23	

1	2	3	4	5	6	7	8	9	10	11	12	13
VI.	BANGUN REJO :											
28.	Tanjung Jaya										60	30
29.	Sri Pendowo										60	30
30.	Sidodadi										40	20
31.	Sidorejo										60	30
32.	Sukanegara										48	24
33.	Bangun Rejo										46	23
34.	Sinar Seputih										36	18
VII.	KALI REJO :											
35.	Watu Agung										60	30
36.	Sinar sari										60	30
37.	Pondowarno										60	30
38.	Sri Basuki										40	30
39.	Balai Rejo										40	20
40.	Sukasari										30	15
VIII.	TERB. BESAR :											
41.	D. Kertahayu						10,50	150	111	14,8		
42.	Banjar Batu							50	27	3,6		
43.	Haropan Rejo							50	45	6	140	70
44.	Endang Rejo						10	150	117,38	15,65	10,5	5,25
45.	Fajar Asri							50	45	6	140	70
46.	Adi Jaya							50	30	4	106	53
47.	Simpang Agung							50	45	6	140	70
48.	Nambah Dadi										60	30
49.	Dono Arum										60	30
50.	Selusuban										60	30
IX.	SUKADANA :											
51.	Dono Mulyo										60	30
52.	Sukoraja Nuban										50	
53.	Bumi Jawa							50	39,75	5,3	40	
54.	Sukadana Ilir							50	45	6	31,5	
55.	Muara Jaya						9	100	92,63	12,35		
56.	Gedong Dalam							30	22,5	3		
	T O T A L	95	720	250	310	13	214	1335	1216,19	162,19	3273,5	909,75

1	2	14	15	16	17	18	19	20	21	22	23
VI.	BANGUN REJO :										
28.	Tanjung Jaya		12	177	200	36				47	
29.	Sri Pendowo		12	108	100	44				28	
30.	Sidodadi		8	37		50				10	
31.	Sidorejo		12	135		180				36	
32.	Sukanegara		9,6	114	100	52				30	
33.	Bangun Rejo		9,2	55		74				14	
34.	Sinar Seputih		7,2	123		164				32	
VII.	KALI REJO :										
35.	Watu Agung		12	120				160		32	
36.	Sinar sari		12	52				70		14	
37.	Poncowarno		12	16				22		4	
38.	Sri Basuki		12	60				80		16	
39.	Balai Rejo		8	75				100		20	
40.	Sukaseri		6	22				30		6	
VIII.	TERB. BESAR :										
41	B. Kertahayu										
42.	Banjar Batu										
43.	Harapan Rejo		28								
44.	Endang Rejo		2								
45.	Fajar Asri		28	107		143				28	
46.	Adi Jaya		21	40		54				10	
47.	Simpang Agung		28	107		142				28	
48.	Nambah Dadi		12	105		140				28	
49.	Dono Arum		12	180		240				48	
50.	Sulusuban		12	150		200				40	
IX.	SUKADANA :										
51.	Dono Mulyo		12	120				160		32	
52.	Sukaraja Nuban	25,25	10	110				146		29	
53.	Bumi Jawa	24,5	9	27				38		7	
54.	Sukadana III	15,75	6	43				57		11	
55.	Muara Jaya										
56.	Gedong Dalem										
	TOTAL	537	612,8	3022	2736	1519		3453	116	1035	

Source: Lampung Tani Makmur Project

Tanjungkarang May 8, 1979

Table 30: Support of Fertilizer to the Upland Dem Farm
1973/74 – 1977/78

No.	Village	Area (Ha)	1973/74		Area (Ha)	1974/75		Area (Ha)	1975/76		Area (Ha)	1976/77		Area (Ha)	1977/78	
			Urea	TSP		Urea	TSP		Urea	TSP		Urea	TSP		Urea	TSP
1.	Margo Agung										18,75	1.875	1.875	69	6.900	6.900
2.	Margo Dadi										26,5	2.650	2.650	89,25	8.925	8.925
3.	Gedung Sumanti										30	3.000	3.000	15	1.500	1.500
4.	Kresno Widodo										30	3.000	3.000	100	10.000	10.000
5.	Bumi Agung										12,75	1.275	1.275	93	9.300	9.300
6.	Sukadamai	*4						15	1.500	1.500	40	4.000	4.000	30	3.000	3.000
7.	Rulung Helok	14	1.400	700	96,6	7.245	7.245	4	400	400						
8.	Haduyang	10	1.000	500	40	4.000	4.000	6,25	625	400						
9.	Merakbatin	7,5	750	375	24,5	2.450	2.450									
10.	Helangan Ratu										18	1.800	1.800	75	7.500	7.500
11.	Kagungan Ratu										30	3.000	3.000	40,125	4.125	4.125
12.	Pojambon				12,16	911	911	62,9	6.290	6.290						
13.	Waringin Sari										30	3.000	3.000	60	6.000	6.000
14.	Bandung Baru										30	3.000	3.000	40	4.000	4.000
15.	Enggal Rejo										25,5	2.550	2.550	50	5.000	5.000
16.	Adi Luwih										30	3.000	3.000	72	7.200	7.200
17.	Sidokerto	10	1.000	500	10,43	782,25	782,25	60	6.000	6.000						
18.	Bulusari	11	1.100	550	55,17	5.517	5.517	40,30	4.030	4.030						
19.	Rengas	10	1.000	500	38,16	3.816	3.816	32,75	3.275	3.275						
20.	Bumi Rahayu							30	3.000	3.000	74,5	7.450	7.450	28,75	2.875	2.875
21.	Bumi Raharjo							34,5	3.450	3.450	45,5	4.550	4.550	62,75	6.275	6.275
22.	Terb. Agung							30	3.000	3.000	50,75	5.075	5.075			
23.	Terb. Subing							34	3.400	3.400	89,5	8.950	8.950	31	3.100	3.100
24.	Kesumadadi							20	2.000	2.000	71	7.100	7.100	19	1.900	1.900
25.	Sukajadi										30	3.000	3.000	75	7.500	7.500
26.	Sidowaras										30	3.000	3.000	149	14.900	14.900
27.	G. Sugih Kampung							30	3.000	3.000	40,5	4.050	4.050	58,3	5.880	5.880
28.	Tanjung Jaya										30	3.000	3.000	118	11.800	11.800
29.	Sri Pandowo										30	3.000	3.000	72	7.200	7.200
30.	Sidodadi										20	2.000	2.000	25	2.500	2.500

No.	Village	Area (Ha)	1973/74		Area (Ha)	1974/75		Area (Ha)	1975/76		Area (Ha)	1976/77		Area (Ha)	1977/78	
			Urea	TSP		Urea	TSP		Urea	TSP		Urea	TSP		Urea	TSP
31.	Sidorejo										30	3.000	3.000	90	9.000	9.000
32.	Sukanegara										24	2.400	2.400	76	7.600	7.600
33.	Bangun Rejo										23	2.300	2.300	37	3.700	3.700
34.	Sinar Seputih										18	1.800	1.800	82	8.200	8.200
35.	Watu Agung										30	3.000	3.000	80	8.000	8.000
36.	Sinar Sari										30	3.000	3.000	35	3.500	3.500
37.	Ponco Warno										30	3.000	3.000	11	1.100	1.100
38.	Sri Basuki										30	3.000	3.000	40	4.000	4.000
39.	Balai Rejo										20	2.000	2.000	50	5.000	5.000
40.	Sukasari										15	1.500	1.500	15	1.500	1.500
41.	B. Kertarahayu				17,5	1.750	1.750	74	7.400	7.400						
42.	Banjar Ratu				16,5	1.650	1.650	16,5	1.650	1.650						
43.	Harapan Rejo							30	3.000	3.000	70	7.000	7.000			
44.	Endang Rejo				16,6	1.660	1.660	78,25	7.825	7.825	5,25	525	525			
45.	Fajar Asri							30	3.000	3.000	70	7.000	7.000	71,5	7.150	7.150
46.	Adi Jaya							20	2.000	2.000	53	5.300	5.300	27	2.700	2.700
47.	Simpang Agung							30	3.000	3.000	70	7.000	7.000	71	7.100	7.100
48.	Nambah Dadi										30	3.000	3.000	70	7.000	7.000
49.	Dono Arum										30	3.000	3.000	120	12.000	12.000
50.	Selusuban										30	3.000	3.000	100	10.000	10.000
51.	Dono Mulyo										30	3.000	3.000	80	8.000	8.000
52.	Sukaraja Nuban										25,25	2.525	2.525	73	7.300	7.300
53.	Bumi Jawa							26,5	2.650	2.650	24,5	2.450	2.450	19	1.900	1.900
54.	Sukadana Ilir							30	3.000	3.000	15,75	1.575	1.575	28,75	2.875	2.875
55.	Muara Jaya				15	1.500	1.500	61,75	6.175	6.175						
56.	Gedong Dalem							15	1.000	1.500						
	TOTAL	62,25	6.250	3.125	356,26	32.645,25	32.645,25	811,7	81.170	81.170	1.637	163.700	163.700	2618,925	262.005	262.005

5486,125

SOURCE: Lampung Tani Makmur Project

Tanjungkarang, May 8, 1977.

Table 31 : Land of Lampung Tani Makmur Project

No.	Location	Acreage ha	Land Origin						Land status (Present)	Document	Land Border	Exploration
			Methode of Transfer	ex. Owner	Since	Seed Farm/ Trial farm	Storage/office /Houses	Other				
1.	Tegineneng Centre	8,0130	Compensation	Si'in Cs	10-10-73	Seed multiplication garden	-	Swamp	-	Gbr v 70/1973 - SK. No. 11/pgr/LS/'73		Upland
2.	Tegineneng Centre	0,1000	-,,-	Sibawihi	5-2-74	-	Godown	-	-	Gbr. 70/73 SK. 11A/Pgr/LS/73		Upland
3.	Tegineneng Centre	14,4500	-,,-	Sibawihi	20-3-74	Swamp	-	-	-	Gbr. 6/PGR/74 SK. No. 6/PGR/LS/74		Swamp
4.	Tegineneng Centre	7,9030	-,,-	Budi Nityo-ko Cs	3-3-75	Seed multiplication garden	-	-	-	Gbr. 010/75 SK. No. 06/PGR/LS/75		Upland
5.	Tegineneng Centre	0.0080	-,,-	Sibawihi	13-0-76	-	Workshop	-	-	Gbr. 580/75 SK. No. 12/PGR/LS/76		Upland
	TOTAL	32,128										

NOTE : Land and plant compensation = 2,2100 Ha.
Plant compensation only = 12,2380 Ha.
Total = 14,4500 Ha.

Tegineneng, July, 1980

Proyek Tani Makmur Lampung
Vice manager

Table 32 : List of Lampung Tani Makmur Project's Building

No.	Specification	Soil (Area)	Building (Size)	Source of fund DIP/APBN	Price	Number In	Out	Balance	Using by	Note
1. to 5.	Expert House	1500 M2	150 M2	1973/1974	14.272.000	5	–	5	1. Vice Director of T.M. 2. Counterpart of Extension 3. Mess 4. Ir. Yusfian 5. Ir. Kamaluddin S.	Tanjungkarang
6.	Input Storage	10000 M2	180 M2	1973/1974	6.557.200	1	–	1	Fertilizer Storage of TM	Branti
7.	Input Storage	10000 M2	180 M2	"	6.557.200	1	–	1	"	Totokaton
8.	Barracks			1972/1973	7.735.000	1	–	1	Tegineneng Tani Makmur	Tegineneng Centre
9.	Office		400 M2	"	13.500.000	1	–	1	Class room of Tani Makmur	"
10.	Generator House		50 M2	"	3.250.000	1	–	1	Tegineneng Tani Makmur	"
11.	Water Pump House			"	2.756.000	1	–	1	"	"
12.	Dam/Reservoir			"	9.282.000	1	–	1	"	"
13.	Springkle/R.P.			1974/1975	1.298.300	1	–	1	"	"
14.	Expert House		150 M2	"	7.256.850	1	–	1	Assistant Centre	"
15.	Laboratory		417 M2	"	18.041.000	1	–	1	Tani Makmur	"
16.	Prefab Storage		324 M2	"	4.756.000	1	–	1	Tani Makmur	"
17.	Farm Tools Storage		407 M2	"	9.625.000	1	–	1	Tani Makmur	"
18.	Rice Mill		300 M2	"	9.078.000	1	–	1	Totokaton/Tani Makmur	Totokaton
19.	Input Storage		180 M2	1975/1976	5.110.000	1	–	1	Fertilizer Storage of Tani Makmur	Sukadana
20.	Chemical Storage		300 M2	"	11.512.960	1	–	1	Pesticide Storage of Tani Makmur	Tegineneng Centre "
21.	Drying Floor		72 M2	"	2.158.500	1	–	1	Tani Makmur	"
22.	Workshop		600 M2	1976/1977	20.816.750	1	–	1	"	"
23.	Green House		144 M2	"	3.875.000	2	–	2	"	"
24.	Expert House		150 M2	"	7.483.000	1	–	1	Count. T.M. + General affairs assistant	"
25.	Input Storage		180 M2	1977/1978	6.126.000	1	–	1	Agriculture Extension Service	Betanghari
26.	Input Storage		180 M2	"	6.126.000	1	–	1	"	Terbanggi Besar.

Table 33: List of Laboratory equipment of Lampung Tani Makmur Project.

NO.	ITEMS	ARRIVED	UNIT	TOTAL	NOTE
	1	2	3	4	5
1.	Recording rain gauge	11-5-73	SET	1	Laboratorium
2.	Recording Anemometer	"	"	1	—"—
3.	Recording Wind Vane	"	"	1	—"—
4.	Recording Claparative Gauge	"	"	1	—"—
5.	Thermo hygrograph	"	"	1	—"—
6.	Transit	"	"	1	—"—
7.	Level	"	"	1	—"—
8.	Plantable Out fit	"	"	2	—"—
9.	Current Meter	"	"	2	—"—
10.	Stop Watch	"	"	3	—"—
11.	Hook Gauge	"	"	2	—"—
12.	W. Level mes for Paddy	"	"	2	—"—
13.	Max and Min thermo	"	"	2	—"—
14.	Hydro meter	"	"	2	—"—
15.	Stick thermometer 50°C	"	"	2	—"—
16.	Stick thermometer 200°C	"	"	5	—"—
17.	Stick thermometer 500°C	"	"	5	—"—
18.	Metal casefar Stick thermo	"	"	5	—"—
19.	Ground thermometer	"	"	1	—"—
20.	Ground thermometer 20 Cm	"	"	1	—"—
21.	Ground thermometer 30 Cm	"	"	1	—"—
22.	Soil Sampler	"	"	1	—"—
23.	Soil cap tester	"	"	1	—"—
24.	Balance 100 mg	"	"	1	—"—
25.	Balance 1 Kg	"	"	1	—"—
26.	Balance 5 Kg	"	"	1	—"—
27.	Soil & plant nourishtester	"	"	1	—"—
28.	Luning Lamp	"	"	1	—"—
29.	Moisture meter	"	"	2	—"—
30.	Handy tape counter	"	"	10	—"—
31.	Plant meter	"	"	2	—"—
32.	Stand Rule	"	"	2	—"—
33.	Curve meter	"	"	19	—"—
34.	Right Angular	"	"	2	—"—
35.	Telescopic rod	"	"	5	—"—

	1	2	3	4	5
36.	Drawing Draf Machine	11-5-73	SET	1	Laboratorium/T.C.
37.	Microscope	,,	,,	2	—,,—
38.	Oresis Constant temp.	,,	,,	1	—,,—
39.	Microtome	,,	,,	1	—,,—
40.	Dest Microodal appets	,,	,,	1	—,,—
41.	Centre Fuges	,,	,,	1	—,,—
42.	Cabinet fan sure suop	,,	,,	3	—,,—
43.	Automatic aperatus	,,	,,	1	—,,—
44.	PH. Meter	,,	,,	1	—,,—
45.	EH. Meter	,,	,,	1	—,,—
46.	Auto dist aparatus	,,	,,	1	—,,—
47.	Microscope	20-8-74	,,	2	—,,—
48.	Petri dish 10 Cm	,,	,,	50	—,,—
49.	Petri dish 20 Cm	,,	,,	50	—,,—
50.	Petri dish 75 Cm	,,	,,	50	—,,—
51.	Petri dish 120 Cm	,,	,,	50	—,,—
52.	Test tube 200 mm	,,	,,	200	—,,—
53.	PH. Meter	,,	,,	1	—,,—
54.	EH. Meter	,,	,,	1	—,,—
55.	Soil plant noncichdiag	,,	,,	2	—,,—
56.	Soil Sampling Stick	,,	,,	1	—,,—
57.	Soil Sampler	,,	,,	1	—,,—
58.	Hardnes Tester	,,	,,	1	—,,—
59.	Hand Level	,,	,,	1	—,,—
60.	Pruning Shear's	,,	,,	2	—,,—
61.	Actualy mea App	,,	,,	1	—,,—
62.	Soil Sampl sub. kit	,,	,,	1	—,,—
63.	Picno Meter	,,	,,	10	—,,—
64.	Desicator	,,	,,	2	—,,—
65.	Penetrate mea's app	,,	,,	1	—,,—
66.	Tensio meter 10 Cm	,,	,,	1	—,,—
67.	Tensio meter 20 Cm	,,	,,	1	—,,—
68.	Tensio meter 40 Cm	,,	,,	1	—,,—
69.	Tensio meter 60 Cm	,,	,,	1	—,,—
70.	Tensio meter 100 Cm	,,	,,	1	—,,—
71.	Suspended buchpar simpler	,,	,,	4	—,,—
72.	Poison battle	,,	,,	4	—,,—
73.	Hand anger par tensio	,,	,,	1	—,,—
74.	Petri dish 90 Cm	,,	,,	50	—,,—
75.	Microtome	,,	,,	1	—,,—

	1	2	3	4	5
76.	Micro meter par eye. P	20–8–74	SET	1	Laboratorium/T.C.
77.	Micro meter per objec	,,	,,	1	–,,–
78.	Cover glass	,,	,,	2000	–,,–
79.	Slide glass	,,	,,	1000	–,,–
80.	Pin set	,,	,,	1	–,,–
81.	Batle far imersian oil	,,	,,	1	–,,–
82.	Dropping botle	,,	,,	1	–,,–
83.	Balsen botle	,,	,,	1	–,,–
84.	Staining pat	,,	,,	1	–,,–
85.	Spesimen case	,,	,,	1	–,,–
86.	Balance PT. 3	,,	,,	1	–,,–
87.	Balance C.3	,,	,,	1	–,,–
88.	Digesting aparatus keedhal	15–9–74	,,	1	–,,–
89.	Flaske keedhal	,,	,,	100	–,,–
90.	Automatic bureta	,,	,,	5	–,,–
91.	Spare Colerting aparatus	,,	,,	10	–,,–
92.	Volumetric pipete 10 mm	,,	,,	10	–,,–
93.	Volumetric pipete 25 ml	,,	,,	10	–,,–
94.	Volumetric pipete 50 ml	,,	,,	10	–,,–
95.	Volumetric pipete	,,	,,	20	–,,–
96.	Polythylene wash botle	,,	,,	10	–,,–
97.	Rengent botle	,,	,,	10	–,,–
98.	Spoon's	,,	,,	10	–,,–
99.	Apparatus	,,	,,	10	–,,–
100.	Pnetrat system	,,	,,	1	–,,–
101.	Moisture meter	,,	,,	1	–,,–
102.	Batray moize	,,	,,	9	–,,–
103.	Spring balance	,,	,,	4	–,,–
104.	Balance Plastick	,,	,,	2	–,,–
105.	Magnifying glase	,,	,,	1	–,,–
106.	Halding savel	,,	,,	1	–,,–
107.	Stant tempt, room	,,	,,	1	–,,–
108.	Thermometer	,,	,,	5	–,,–
109.	Label	,,	,,	1000	–,,–
110.	Draying oven	27–12–75	,,	1	–,,–
111.	Incobater temp. 60°C	,,	,,	1	–,,–
112.	Sample Grine with	,,	,,	1	–,,–
113.	Diho (Coppee–Mill)	,,	,,	1	–,,–
114.	PH. Meter	,,	,,	1	–,,–
115.	Analytical Balance	,,	,,	1	–,,–

	1	2	3	4	5
116.	Dispansing Balance	27--12--75	SET	1	Laboratorium/T.C.
117.	Spring Balance 10 Kg	"	"	1	—"—
118.	Spring Balance 2 Kg	"	"	1	—"—
119.	Nitrogen Disting appen	"	"	1	—"—
120.	Dispensing balance 1,6 Kg	"	"	1	—"—
121.	Centrifuge with Aceoa	"	"	1	—"—
122.	Low Tempt. Incubator	"	"	1	—"—
123.	Exchange resin	"	"	1	—"—
124.	Soil Chemical tester	"	"	1	—"—
125.	Soil chardnees tester	"	"	1	—"—
126.	Pletfrom Type Balance	"	"	24	—"—
127.	Berumer your LPG 6 as	"	"	2	—"—
128.	Support for buret	"	"	2	—"—
129.	Pruning hool	"	"	2	—"—
130.	Wagner pat porselain 2000	"	"	2	—"—
131.	Wagner pat 5000 a	"	"	100	—"—
132.	Wagner pat 500 a	"	"	320	—"—
133.	Semo meter	"	"	2	—"—
134.	Microscope, streo	"	"	1	—"—
135.	Muscom box	"	"	30	—"—
136.	Muscom cabinet	"	"	1	—"—
137.	Disnecting Intrument	"	"	3	—"—
138.	Micro meter	"	"	1	—"—
139.	Breeding page	"	"	15	—"—
140.	Slide case for microscope	"	"	20	—"—
141.	Descater 30 Cm	"	"	5	—"—
142.	Insectnet with rood	"	"	15	—"—
143.	Inproreed moisture meter	"	"	1	—"—
144.	Sample Duster	"	"	2	—"—
145.	Sample Crusher	"	"	2	—"—
146.	Grain Moisture	"	"	1	—"—
147.	Standard grain Moisture	"	"	1	—"—
148.	Brush for pipet	"	"	10	—"—
149.	Ruber squerat	"	"	10	—"—
150.	Fellter peper	"	"	15	—"—
151.	Felles 20 Cm	"	"	2	—"—
152.	Mortor's	"	"	3	—"—
153.	Reagen Batle's	"	"	5	—"—
154.	Arcel thermometer 50°C	"	"	10	—"—
155.	Arcel thermometer 100°C	"	"	10	—"—
156.	Water Requirement Equipment	"	"	15	—"—

	1	2	3	4	5
157.	Beaker: 100 ml, 300 ml 500 ml	27–12–75	SET	150	Laboratorium/T.C.
158.	Erlemayer Flasher 100 ml + 300 ml	,,	,,	100	–,,–
159.	Keadhal glass	,,	,,	50	–,,–
160.	Watch glass	,,	,,	10	–,,–
161.	Reagen Botle: 250, 500, 1000 ml	,,	,,	30	–,,–
162.	Weghting Botle	,,	,,	30	–,,–
163.	Tube Glass 4 mm	,,	,,	5	–,,–
164.	Tube Glass 6 mm	,,	,,	5	–,,–
165.	Glass Rod 4 mm	,,	,,	5	–,,–
166.	Asperater's	,,	,,	5	–,,–
167.	Peunyel's 45 mm	,,	,,	10	–,,–
168.	Peunvel's 60 mm	,,	,,	10	–,,–
169.	Peunvel's 90 mm	,,	,,	10	–,,–
170.	Polyethylene washing botle	,,	,,	5	–,,–
171.	Slide glass	,,	,,	1000	–,,–
172.	Cover glass	,,	,,	2000	–,,–
173.	Brush for washing botle No. 1	,,	,,	10	–,,–
174.	Brush for washing bottle No. 2	,,	,,	10	–,,–
175.	Brush for washing botle No. 4	,,	,,	10	–,,–
176.	Spesial large sine	,,	,,	10	–,,–
177.	Poislan culture 9 Cm Ø	,,	,,	100	–,,–
178.	Poislan culture 15 Cm Ø	,,	,,	50	–,,–
179.	Poislan culture 19 Cm Ø	,,	,,	100	–,,–
180.	Test tube	,,	,,	200	–,,–
181.	Measuring Cylinder 20 ml	,,	,,	5	–,,–
182.	Measuring Cylinder 100 ml	,,	,,	5	–,,–
183.	Measuring Cylinder 500 ml	,,	,,	5	–,,–
184.	Measuring Cylinder 1000 ml	,,	,,	5	–,,–
185.	Pepet's 1 ml & 2 ml	,,	,,	10	–,,–
186.	Volumetric Pipet's 5 ml	,,	,,	5	–,,–
187.	Volumetric Pipet's 25 ml	,,	,,	5	–,,–
188.	Volumetric Pipet's 50 ml	,,	,,	5	–,,–
189.	Buret w/cook	,,	,,	5	–,,–
190.	Volumetric flask's 90 ml	,,	,,	10	–,,–
191.	Volumetric flask's 100 ml	,,	,,	10	–,,–
192.	Volumetric flask's 250 ml	,,	,,	5	–,,–
193.	Volumetric flask's 500 ml	,,	,,	5	–,,–
194.	Volumetric flask's 1000 ml	,,	,,	5	–,,–
195.	Rubber Stonpex's	,,	,,	1	–,,–
196.	Muscum yar 6 cm	,,	,,	10	–,,–

	1	2	3	4	5
197.	Muscum yar 30 cm	27–12–75	SET	10	Laboratorium/T.C.
198.	Plastic botle	,,	,,	200	—,,—
199.	Theragraph W/Recorder	,,	,,	2	—,,—
200.	Auto level 34	,,	,,	2	—,,—
201.	Cren ponetrater	,,	,,	1	—,,—
202.	Meek change 30 cm	,,	,,	20	—,,—
203.	Curent meter	,,	,,	1	—,,—
204.	Bimatalic actrogrep 7 day's	,,	,,	1	—,,—
205.	Distilling aparatus	,,	,,	1	—,,—
206.	Draft chamber with	,,	,,	1	—,,—
207.	Botle for Inclet bereading and were	,,	,,	100	—,,—
208.	Maganfying glass with stand	20–9–76	,,	20	—,,—
209.	Incet Poreeding Box	,,	,,	10	—,,—
210.	For Cep's	,,	,,	20	—,,—
211.	Chat ching ort far incet	,,	,,	20	—,,—
212.	Pre pared slide kit	,,	,,	1	—,,—
213.	Rain gauge	,,	,,	2	—,,—
214.	Plastic Inclase set	,,	,,	10	—,,—
215.	Automatical Dialy all umment Incet Colector	,,	,,	5	—,,—
216.	Vinyl Plate	,,	,,	20	—,,—
217.	Memberling	,,	,,	20	—,,—
218.	Semi logar than section paper	,,	,,	10	—,,—
219.	Wagner pat	,,	,,	50	—,,—
220.	Robitach Aktinograph	,,	,,	1	—,,—
221.	Nematode Detection Instrument	,,	,,	1	—,,—
222.	Clock dish	,,	,,	20	—,,—
223.	Whasing botle	,,	,,	5	—,,—
224.	Polyethylene tank	,,	,,	100	—,,—
225.	Ikeda tray white, 74x66, 5x10 cm	,,	,,	10	—,,—
226.	Ikeda Tray white 65,5x60, 5x6 cm	,,	,,	10	—,,—
227.	Gum Tapal	,,	,,	20	—,,—
228.	Recording thermo higrometer	,,	,,	1	—,,—
229.	Microscope	,,	,,	1	—,,—
230.	Foto adaftor for above	,,	,,	1	—,,—
231.	Incet pin No. 4	,,	,,	30	—,,—
232.	Incet case 13x16 mm	,,	,,	50	—,,—
233.	Incet pin No. 3	,,	,,	20	—,,—
234.	Incet pin No. 2	,,	,,	20	—,,—
235.	Slide Plate No. 4	,,	,,	5	—,,—
236.	Slide plate No. 4	,,	,,	5	—,,—

	1	2	3	4	5
237.	Slide plate No. 5	20-9-76	SET	5	Laboratorium/T.C.
238.	Slide plate No. 6	"	"	5	—"—
239.	Incet pin (Micropin)	"	"	10	—"—
240.	Spectro photo meter	"	"	1	—"—
241.	PH. Meter	"	"	1	—"—
242.	EH. Meter	"	"	1	—"—
243.	Clemo meter	"	"	1	—"—
244.	Soil tester yagi	"	"	1	—"—
245.	Soil and plour neonis tester	"	"	1	—"—
246.	Hot plate M.P. 45	"	"	1	—"—
247.	Microscope	16-10-76	"	1	—"—
248.	Foto adaptor for above	"	"	1	—"—
249.	Incet cuse 13x6	"	"	50	—"—
250.	Incet pin No. 4	"	"	30	—"—
251.	Incet pin No. 3	"	"	20	—"—
252.	Incet pin No. 2	"	"	20	—"—
253.	Slide plate No. 1	"	"	5	—"—
254.	Slide plate No. 4	"	"	5	—"—
255.	Slide plate No. 5	"	"	5	—"—
256.	Slide plate No. 6	"	"	5	—"—
257.	Botle for Insectisida	"	"	100	—"—
258.	Sehitan - san	"	"	3	—"—
259.	Parazal	"	"	20	—"—
260.	Fuchsin asic	"	"	3	—"—
261.	Kasei - kari	"	"	3	—"—
262.	Amonia	"	"	3	—"—
263.	Polyethylene	"	"	5	—"—
264.	Polyethylene And lose	"	"	1	—"—
265.	Cheinot pololene 5 gr	"	"	2	—"—
266.	Dotite N.N. 25 gr	"	"	5	—"—
267.	Potasium Nitrogen	"	"	10	—"—
268.	Trincular zoon strio Microscope	"	"	1	—"—
269.	Strocke Shaker	"	"	1	—"—
270.	Hot Plate	"	"	1	—"—
271.	Water bath	"	"	1	—"—
272.	Magnetic Stainer	"	"	1	—"—
273.	Nitrogen Degisting and Destilling	"	"	1	—"—
274.	Ekemoto Steam Stereling	"	"	2	—"—
275.	Aseptic Box	"	"	1	—"—
276.	Pipet Automatic Cleaner	"	"	1	—"—

	1	2	3	4	5
277.	Balance Kiya 1022-c	16–10–76	SET	1	Laboratorium/T.C.
278.	Spring Balance	,,	,,	1	—,,—
279.	Standard Spesivic meter	,,	,,	1	—,,—
280.	Centra fuge 110v–50 Hz	,,	,,	1	—,,—
281.	Flame photo meter	,,	,,	1	—,,—
282.	Spectro photo meter	16–8–77	,,	1	—,,—
283.	Draying shel	,,	,,	1	—,,—
284.	P.H. Meter	,,	,,	2	—,,—
285.	Grain Moisture meter	,,	,,	20–2	—,,—
286.	Oil Circulate vacum pump	,,	,,	1	—,,—
287.	Hand level	,,	,,	2	—,,—
288.	Support basc shebuta	,,	,,	5	—,,—
289.	Support Shebata	,,	,,	5	—,,—
290.	Support Funnel shabata	,,	,,	3	—,,—
291.	Support Buret holder	,,	,,	2	—,,—
292.	Thermometer Mercury Filled 50°C	,,	,,	5	—,,—
293.	Thermometer Mercury Filled 100°C	,,	,,	5	—,,—
294.	Thermometer Mercury Filled 200°C	,,	,,	5	—,,—
295.	Magnifying Glass Fication	,,	,,	2	—,,—
296.	Test tube Sopport wooden	,,	,,	50	—,,—
297.	Fill Size 20 cm	,,	,,	5	—,,—
298.	Wagner pat	,,	,,	60	—,,—
299.	Glass tubing (palat batton)	,,	,,	30	—,,—
300.	Clamp	,,	,,	100	—,,—
301.	Robber Stopper	,,	,,	1	—,,—
302.	Rubber tubing (Black) 4 mm x 10	,,	,,	10	—,,—
303.	Rubber Tubing (Black) 6 mm x 10	,,	,,	10	—,,—
304.	Rubber Tubing (Black) 8 mm x 10	,,	,,	10	—,,—
305.	Rubber bulb far. 10 ml	,,	,,	5	—,,—
306.	Spatula	,,	,,	5	—,,—
307.	Filter paper No. 2	,,	,,	3	—,,—
308.	Filter paper No. 6	,,	,,	3	—,,—
309.	Pipet Sporit	,,	,,	1	—,,—
310.	Cruk Barer	,,	,,	1	—,,—
311.	Cruk Cable tang	,,	,,	5	—,,—
312.	Brush	,,	,,	160	—,,—
313.	Spoon & Drug	,,	,,	5	—,,—
314.	Agate Morter	,,	,,	1	—,,—
315.	Porsetain Morter	,,	,,	5	—,,—
316.	Grain Hicro meter	,,	,,	20	—,,—

	1	2	3	4	5
357.	Glass tubing hard Type 6 mm	16–8–77	SET	10	Laboratorium/T.C.
358.	Glass rod hard Type 4 mm	„	„	5	–„–
359.	Vaccum Grease	„	„	1	–„–
360.	Electriating apparatus Pipet Metod	21–8–78	„	1	–„–
361.	Hot Plate Model HM 11. 110 V. 50 Hz.	„	„	1	–„–
362.	Photo electric color meter	„	„	1	–„–
363.	Balance For Centrifuge	„	„	1	–„–
364.	Water bath	„	„	1	–„–
365.	Disphasing balance	„	„	1	–„–
366.	Hand Tally Counter	„	„	4	–„–
367.	Pipet Stand with glass	„	„	1	–„–
368.	Tougue for cricible	„	„	5	–„–
369.	Stop Watch	„	„	2	–„–
370.	Monometer borete	„	„	1	–„–
371.	The panometer, engroved Steam	„	„	10	–„–
372.	Filter paper No. 2	„	„	3	–„–
373.	Filter paper No. 3	„	„	2	–„–
374.	Brush	„	„	1 lot	–„–
375.	Rubber tube	„	„	1 lot	–„–
376.	Buret Stand	„	„	2	–„–
377.	Corck borer 12 set	„	„	2	–„–
378.	Glass plate Counter With Diamon	„	„	2	–„–
379.	Nitrogen Distelling	„	„	1	–„–
380.	Fumel Stand	„	„	2	–„–
381.	Rubber Stoper Balck	„	„	1	–„–
382.	Burner Propine	„	„	5	–„–
383.	Rubber Bulb	„	„	5 Pc	–„–
384.	Rubber Blower Tho bulb	„	„	5 Pc	–„–
385.	Asbestos wire gauge	„	„	5 Pc	–„–
386.	Polyethylene botle	„	„	1 Set	–„–
387.	Wigner pot	„	„	30 Pet.	–„–
388.	Wing Extention board	„	„	5 Pc.	–„–
389.	Polyethylene washing botle	„	„	1 Set	–„–
390.	Tweezer oil	„	„	10 Pc	–„–
391.	Scisor's	„	„	10 Pc	–„–
392.	Incet pin	„	„	10 Pak	–„–
393.	Polyethylene Board	„	„	5 Pc	–„–
394.	Extention Board	„	„	5 Pc	–„–
395.	Specimen Botle 9cmx15cm	„	„	30 Pc	–„–
396.	Glass tube with corck 1,5x6 cm	„	„	200 Pc	–„–

	1	2	3	4	5
317.	Gauze with Asbestor Centre	26-8-77	SET	5	Laboratorium/T.C.
318.	Needle Holden with Nichrome wire	,,	,,	5	—,,—
319.	Rublear Spray	,,	,,	4	—,,—
320.	Quantitave Flask	,,	,,	1 lot	—,,—
321.	Sample glass botle	,, ,,	,,	5000	—,,—
322.	Polyvinile sheet	,,	,,	10	—,,—
323.	Wavy board for rice	,,	,,	20 rol	—,,—
324.	Minature Theresting machine	,,	,,	1 Set	—,,—
325.	Seed Detector	,,	,,	1	—,,—
326.	Volume Tric pipet	,,	,,	10	—,,—
327.	Komagome pipet	,,	,,	10	—,,—
328.	Beaker hario glass 100 ml	,,	,,	20	—,,—
329.	Beaker hario glass 300 ml	,,	,,	20	—,,—
330.	Beaker hario glass 1000 ml	,,	,,	20	—,,—
331.	Toal beaker hario glass 300 ml	,,	,,	20	—,,—
332.	Funel hard glass	,,	,,	40	—,,—
333.	Automatic buret capasity 50 ml	,,	,,	5	—,,—
334.	Buret 10 ml	,,	,,	5	—,,—
335.	Buret 50 ml	,,	,,	5	—,,—
336.	Graduated cylinder 25 ml	,,	,,	5	—,,—
337.	Graduated cylinder 100 ml	,,	,,	5	—,,—
338.	Graduated cylinder 250 ml	,,	,,	5	—,,—
339.	Graduated cylinder 500 ml	,,	,,	5	—,,—
340.	Graduated cylinder 1000 ml	,,	,,	5	—,,—
341.	Erlin mayer feaste hario glass 100 ml	,,	,,	20	—,,—
342.	Erlin mayer 200 ml	,,	,,	20	—,,—
343.	Erlin mayer 500 ml	,,	,,	30	—,,—
344.	Erlin mayer 1000 ml	,,	,,	10	—,,—
345.	Wide month reagent botle 1000 ml	,,	,,	10	—,,—
346.	Narrow month reagent botle 120ml	,,	,,	10	—,,—
347.	—,,— 250 ml	,,	,,	10	—,,—
348.	—,,— 500 ml	,,	,,	10	—,,—
349.	—,,— 1000 ml	,,	,,	10	—,,—
350.	Flash kjeldahl 100 ml	,,	,,	50	—,,—
351.	Flash kjeldahl 200 ml	,,	,,	50	—,,—
352.	Centrifuge tube hario glass	,,	,,	30	—,,—
353.	Weighing botle hario glass	,,	,,	50	—,,—
354.	Alcohol lamp	,,	,,	5	—,,—
355.	Sucher	,,	,,	5	—,,—
356.	Glass tubing hard Type 4 mm	,,	,,	10	—,,—

	1	2	3	4	5
397.	Glass Tube with cork 1,5x3,6cm	21–8–78	PC	200	Laboratorium/T.C.
398.	Glass Tube 27 x 55 mm	,,	,,	200	–,,–
399.	Insect kelling botle	,,	,,	20	–,,–
400.	Extention tape	,,	,,	10	–,,–
401.	Insect colection set	,,	,,	50	–,,–
402.	Insect sex	,,	,,	100	–,,–
403.	Glass tube with pin	,,	,,	50	–,,–
404.	Insect level	,, ,,	PAK	50	–,,–
405.	Paste	,,	PC	3	–,,–
406.	Parazo	,,	,,	30	–,,–
407.	Napthaline	,,	PAK	10	–,,–
408.	Crensote	,,	CAN	3	–,,–
409.	Graderated Cylinder 250°C	,,	PC	200	–,,–
410.	Desicator with tublation	,,	,,	5	–,,–
411.	Desicator	,,	,,	5	–,,–
412.	Evaporating dish	,,	,,	10	–,,–
413.	Glass Tube Ryrex Ø4m/m	,,	,,	1	–,,–
414.	Glass Tube Ryrex Ø6m/m	,,	,,	1	–,,–
415.	Glass Tube Ryrex Ø9m/m	,,	,,	1	–,,–
416.	Glass rod ryrex Ø6 m/m	,,	,,	10	–,,–
417.	Centrifuge tube 50 ml	,,	,,	10	–,,–
418.	Centrifuge tube 100 ml	,,	,,	10	–,,–
419.	Tall Beaker	,,	,,	20	–,,–
420.	Funnel Ø6 cm	,,	,,	20	–,,–
421.	Funnel Ø9 cm	,,	,,	20	–,,–
422.	Flask Round Bottom 50 ml	,,	,,	15	–,,–
423.	Flask Round Bottom 100 ml	,,	,,	15	–,,–
424.	Flask Round Bottom 200 ml	,,	,,	15	–,,–
425.	Flask Round Bottom 300 ml	,,	,,	10	–,,–
426.	Flask Round Bottom 500 ml	,,	,,	10	–,,–
427.	Flask Round Bottom 1000 ml	,,	,,	10	–,,–
428.	Flask Rycesdhal	,,	,,	50	–,,–
429.	Whole Volume Trick Pipet 5 ml	,,	,,	5	–,,–
430.	Whole Volume Trick Pipet 10 ml	,,	,,	5	–,,–
431.	Whole Volume Trick Pipet 50 ml	,,	,,	5	–,,–
432.	Peppete Romogonie's	,,	,,	10	–,,–
433.	Measuring Cylinder 25 ml	,,	,,	5	–,,–
434.	Measuring Cylinder 100 ml	,,	,,	5	–,,–
435.	Measuring Cylinder 500 ml	,,	,,	5	–,,–
436.	Measuring Cylinder 1000 ml	,,	,,	5	–,,–

	1	2	3	4	5
437.	Beaker 100 ml	21–8–78	PC	20	Laboratorium/T.C.
438.	Beaker 200 ml	„	„	20	–„–
439.	Beaker 300 ml	„	„	20	–„–
440.	Beaker 1000 ml	„	„	20	–„–
441.	Auto Buret	„	SET	2	–„–
442.	Color Comparison tube 50 ml	„	„	30	–„–
443.	Color Comparison tube 100 ml	„	„	20	–„–
444.	Reager Botle Narrow 100 ml	„	„	5	–„–
445.	Reager Botle Narrow 250 ml	„	„	5	–„–
446.	"Dik" Soil Sampling Model: 156 W/Case	1979	„	20	–„–
447.	Magnifying glass 20x & 30 tow kind/set	„	SET	20	–„–
448.	Rice & Barly Moisture meter Model: "KIYA" 148-C W/cell x 1 doz	„	„	15	–„–
449.	Table Spring balance Model: "KIYA" 1042-B	„	PCS	20	–„–
450.	Plastick beaker Graduated 100 cc	„	„	500	–„–
451.	Siale wood made Lugth. 1 m	„	„	20	–„–
452.	Soil Sterilizer Model: HF–4 B Capacity: 2 L	„	„	5	–„–
453.	Scrissors for flower W/Skin Case	„	„	50	–„–
454.	Short sward for flower W/wood case	„	„	50	–„–
455.	Seed Sampler set, Nobbe Small Type Model: "KIYA" 102 Size: 0.8x45 cm, 1.0x50 cm 1.2x55 cm, 1.5x60 cm (Per set each 1 per)	1980	SET	5	Laboratorium Tegineneng Centre.
456.	Seed Sampler pah, with Hopper Model: KIYA. 105–B Size 9 x 14 x 1 cm	„	PCS	60	–„–
457.	Testing rice Husker for one ear Model: KIYA 114, Size. 10 Ø x 4 cm	„	PCS	5	–„–
458.	Germinator, Liebemberg Type Model: KIYA 111, Size: 42x29,5 cm W/glase plate, Thermometer	„	SET	20	–„–

	1	2	3	4	5
459.	Microscope "OLYMPUS" Model: CHC--012 SP With Standard Acessories	1980	SET	10	Untuk Laboratorium Tegineneng Centre.
460.	Storage case Model: KIYA No. 4971 B	"	"	1	—"—
461.	Table Spring Balance, KIYA	"	"		
1.	Capacity 2 Kgs Mod.: 1042A	"	"	1	—"—
2.	" 4 " " : 1042B	"	"	1	—"—
3.	" 8 " " : 1042C	"	"	1	—"—
4.	" 10 " " : 1042D	"	"	3	—"—
5.	" 50 " " : 1042J	"	"	1	—"—
462.	Nitrogen Distillation Aparatus "KIYA"	"	"		—"—
1.	Shioeri-Okuda Type Mod: 370	"	"	1	—"—
2.	Kjeldahl Type Mod: 404	"	"	2	—"—
463.	Centrifuge "HITAHURA" Model: 27—25D Capacity: 100 ml Power Source: 110V, 50Hz 1Ø Revolution: 4,000 RPM With Standard Accessories	"	"	1	—"—
464.	Soil Exchange capacity Determination apparatus Model: "KIYA" 375 With Standard Accesories	"	"	2	—"—
465.	Automatic Muffle furnace Model: "KIYA" 3925 Power source: 110V, 50 Hz, 1Ø Max Tempt: 1,200° C	"	"	1	—"—
466.	Willey, Cutting Mill Model: "KIYA" 4211-B Power Source: 110V, 50 Hz, 1Ø	"	"	1	—"—
467.	Soil Actual Volumeter Model: "KIYA" 331—B Standard set	"	"	1	—"—
468.	Desiccant, Silicagel 500 g /Package	"	P Kgs	100	—"—
469.	Degital analytical balance Model: R41, "MITAMURA" 20—40 Capacity: 160 g Sensivity: 0,1 mg	"	SET	1	—"—

	1	2	3	4	5
470.	Direct reading table balance Model: PC–400 Cap : 400 g Sensivity: 1 mg	1980	SET	1	Untuk Laboratorium Tegineneng Centre.
471.	Moisture Meter, with cell 1 doz Model: "KIYA" 148–C Riceter–3	,,	,,	15	–,,–
472.	Soil Sedimentation Aparatus, Model: KIYA 326 Without Support With Standard Accessories	,,	,,	1	–,,–
473.	Volumeteric flask, 2306–50A	,,			
1.	50 ml "SIBATA KOGAKU"	,,	PCS	20	–,,–
2.	100 ml	,,	,,	20	–,,–
3.	200 ml	,,	,,	20	–,,–
474.	Beaker 1002				
1.	100 ml "SHIBATA KOGAKU"	,,	,,	30	–,,–
2.	200 ml	,,	,,	10	–,,–
3.	1000 ml	,,	,,	5	–,,–
4.	5000 ml	,,	,,	1	–,,–
475.	Beaker tall, form 1004 1.500 ml "SHIBATA KOGAKU"	,,	,,	5	–,,–
476.	Erlemeyer flask, 1053				
1.	100 ml "SHIBATA KOGAKU"	,,	,,	50	–,,–
2.	200 ml	,,	,,	10	–,,–
3.	300 ml	,,	,,	10	–,,–
4.	2000 ml	,,	,,	5	–,,–
477.	Pipet with Rubber, 2051				
1.	1 ml "SHIBATA KOGAKU"	,,	,,	5	–,,–
2.	3 ml	,,	,,	5	–,,–
3.	5 ml	,,	,,	5	–,,–
4.	10 ml	,,	,,	5	–,,–
478.	Pipet With Rubber bulb RKI3396	,,	,,		–,,–
1.	25 ml "IKEMOTO-RIKA"	,,	,,	5	–,,–
479A.	Pipet Volumetric 2040				
1.	1 ml "SHIBATA KOGAKU"	,,	,,	10	–,,–
479B	Pipet Volumetric 2040				
2.	2 ml "SHIBATA KOGAKU	,,	,,	10	–,,–
3.	3 ml	,,	,,	10	–,,–
4.	20 ml	,,	,,	10	–,,–
5.	100 ml	,,	,,	5	–,,–

	1	2	3	4	5
480.	Funnel "SHIBATA KOGAKU"	1980			
1.	3 cm ØRKL	1980	PCS	10	Laboratorium Tegineneng Centre.
2.	4,5 cm Ø	„ „	„	10	—„—
481.	Vinyl pipe, "IKEMOTO-RIKA"				
1.	Innersize: 4 mm Outerisize 5 mm Ø	„	„	10	—„—
2.	Innersize: 5 mm Outerisize 7 mm Ø	„	„	10	—„—
3.	Innersize: 7 mm Outerisize 9 mm Ø	„	„	10	—„—
4.	Innersize: 10 mm Outerisize 13 mm Ø	„	„	10	—„—
482.	Evaporating disches, "IKEMOTO-RIKA"				
1.	Flat bottom 50 mm Ø	„	„	20	—„—
2.	Flat bottom 80 mm Ø	„	„	20	—„—
3.	Round Bottom 100 mm Ø	„	„	10	—„—
483.	Crucible, Porcelain with Cover 30 ml "IKEMOTO-RIKA"	„	„	30	—„—
484.	Funnel, Buchner Type "IKEMOTO-RIKA"				
1.	Outersize: 9 cm	„	„	2	—„—
2.	Outersize: 12 cm	„	„	2	—„—
485.	Filterring flask, IKEMOTO-RIKA 1000 ml	„	„	5	—„—
486.	Filter paper, TOYO-ROSHI				
1.	No. 2. 9 cm perbox 100 shet	„	BOXES	10	—„—
2.	No. 5A 11 cm „	„	„	10	—„—
3.	No. 5C 11 cm „	„	„	5	—„—
4.	No. 6 11 cm „	„	„	20	—„—
5.	No. 2 11 cm „	„ „	„	10	—„—
487.	Graduated Cylinder "SHIBATA KOGAKU" 50 ml	„	PCS	5	—„—
488.	Nitrogen Micro Diffusion Unit. With Stirring bar 3 Pcs/30 sets	„	SET	30	—„—
489.	Polyethylene bottle, wide mount				
1.	500 ml "IKEMOTO-RIKA"	„	„	10	—„—
2.	1000 ml	„	„	10	—„—

	1	2	3	4	5
490.	Polyethylene beaker, "IKEMOTO-RIKA" 2 lit	1980	PCS	2	Laboratorium
491.	Polyethylene Beaker, " "IKEMOTO-RIKA" 5 lit	"	PCE	1	—„—
492.	Alminon 25 g "KARTO-KAGAKU"	"	"	1	—„—
493.	Ammonium Carbonate, "KARTO-KAGAKU" 500 g	"	"	2	—„—
494.	Ammonium Nitrate "KARTO-KAGAKU" 500 g	"	PCS	2	—„—
495.	Ammonium Metavanadate "KARTO-KAGAKU" 25 g	"	PCE	1	—„—
496.	Barium Chloride "KARTO-KAGAKU" 500 g	"	PCS	2	—„—
497.	Charcoal Bone, "KARTO-KAGAKU" 500 g	"	"	1	—„—
498.	Activated Charcoal "KARTO-KAGAKU" 500 g	"	"	1	—„—
499.	Calcium Carbonate "KARTO-KAGAKU" 500 g	"	"	2	—„—
500.	2.4 Dinitrophenol "KARTO-KAGAKU" 25 g	"	PCE	1	—„—
501.	Crease for highvacumm "KARTO–KAGAKU" 2 doz	"	PCE	1	—„—
502.	Ferrous Ammonium sulfate "KARTO-KAGAKU" 500 g	"	PCS	3	—„—
503.	Manganese Chloride "KARTO-KAGAKU" 500 g	"	PCE	1	—„—
504.	Manganese sulfate "KARTO-KAGAKU" 500 g	"	"	1	—„—
505.	Sodium carbonate, Anhyd "KARTO-KAGAKU" 500 g	"	"	2	—„—
506.	Sodium Chloride, "KARTO-KAGAKU" 500 g	"	"	2	—„—
507.	Sodium thiosulfate "KARTO-KAGAKU" 500 g	"	"	2	—„—
508.	Potasium Nitrate "KARTO-KAGAKU" 500 g	"	"	2	—„—
509.	Pottasium permanganate "KARTO-KAGAKU" 500 g	"	"	1	—„—
510.	Potasium Hydroxide "KARTO-KAGAKU" 500 g	"	PCS	5	—„—

	1	2	3	4	5
511.	Potasium phosphate, Dibasic "KARTO-KAGAKU" 500 g	1980	PCS	2	Laboratorium
512.	Silver Nitrate "KARTO-KAGAKU" 25 g	„ „	„	2	—„—
513.	Quarz sand "KARTO-KAGAKU" 500 g	„	„	2	—„—
514.	Saccharose, "KARTO-KAGAKU" 500 g	„	„	1	—„—
515.	Starch Soluble "KARTO-KAGAKU" 500 g	„	„	1	—„—
516.	Toluene, "KARTO-KAGAKU" 500 g	„	„	1	—„—
517.	PH Standard Solution "KARTO-KAGAKU" PH. 4, 7, 9 set	„	„	2	—„—
518.	Hydrogen poroxide "KARTO-KAGAKU" 500 g	„	„	3	—„—
519.	Potessium chloride "KARTO-KAGAKU" 500 g	„	„	10	—„—
520.	1. Soda lime, small "KARTO-KAGAKU" 500 g	„	„	2	—„—
	2. Soda lime, Middle "KARTO-KAGAKU" 500 g	„	„	2	—„—
521.	Silver Sulfate "KARTO-KAGAKU" 25 g	„	„	3	—„—
522.	Cum Stopper No. 19 "KARTO-KAGAKU"	„	„	5	—„—

Table 34 : List of Agriculture Extension Inventory of the Lampung Tani Makmur Project
1973 – 1979

No.	KIND OF MATERIAL	TYPE	Sending Year	Total	Centre	Int, hat & Publication	Field Extension worker (PPL)	Agr. Extension Service	Storage		NOTE
									Good	damaged	
1	2	3	4	5	6	7	8	9	10	11	12
1.	Type writer	Sterling	1973	1	–	–	–	1	0	–	REC
2.	–„–	Helmes	1973	1	–	–	–	1	–	–	REC
3.	–„–	Helmes 70 EL	1974	2	2	–	–	–	–	–	MR TATENO & MR SUGAWARA
4.	–„–	Helmes V 2	1977	2	2	–	–	–	–	–	T.M.S. Administration room
5.	–„–	Olivetti Studio 46	1979	4	4	–	–	–	–	–	1. –„– 2. Material 3. Workshop 4. MR. TATENO
6.	Type writer	Daimo M 1525	1973	1	1	–	–	–	–	–	Material Division
7.	Type writer	Daimo M 1525	1980	2	2	–	–	–	–	–	Material Division
8.	Copying Machine	Ricoh 680	1973	1	1	–	–	–	–	–	T.M.S. administration
9.	–„–	Ricoh BS 310	1974	1	1	–	–	–	–	–	–„–
10.	–„–	Ricoh High Star 400	1976	1	1	–	–	–	–	–	–„–
11.	–„–	Ricoh DT – 850	1980	1	1	–	–	–	–	–	–„–
12.	Calculator	Casio	1973	2	2	–	–	–	–	–	–„–
13.	–„–	Casio	1974	2	1	–	–	1	–	–	Planning Bureau
14.	–„–	Figer	1973	3	3	–	–	–	–	–	
15.	–„–	Sharp	1974	1	1	–	–	–	–	–	MR NODA
16.	–„–	Casio	1976	13	–	–	13	–	–	–	
17.	–„–	Sharp	1977	10	10	–	–	–	–	–	ASS + COUNTERPARTS
18.	–„–	Casio A 1	1979	15	–	–	–	–	15	–	ASS + COUNTERPARTS
19.	Movie projector 16 mm	Elmo	1973	1	–	1	–	–	–	–	Storage
20.	–„– 16 mm	Elmo	1977	2	–	–	–	–	2	–	
21.	Calculator	Casio	1980	20	–	–	–	–	–	–	Storage
22.	Movie projector 16 mm	Elmo 16 AA	1978	1	–	–	–	–	1	–	
23.	–„– 16 mm	Elmo 16 AA	1979	1	–	–	–	–	1	–	
24.	Movie projector 8 mm	Elmo K 100 SM	1976	1	–	–	–	–	1	–	
25.	–„– 8 mm	Elmo SP – A	1977	2	–	1	–	–	1	–	
26.	–„– 8 mm	Elmo K 100 SM	1979	2	–	–	–	–	2	–	

1	2	3	4	5	6	7	8	9	10	11	12
27.	Screen	Elmo	1973	1	–	–	–	1	–	–	REC Bandar Jaya
28.	–„–	Elmo HS – 4	1977	2	–	1	–	–	1	–	
29.	–„–	Elmo	1978	1	–	–	–	–	1	–	
30.	Slide projector	Elmo AS 1000 T	1973	1	–	1	–	–	–	–	
31.	–„–	Elmo AS 1000 T	1974	1	–	–	–	–	1	–	
32.	–„–	Elmo S 300	1976	3	–	–	–	2	–	–	REC Bandar Jaya + REC Pring Sewu
33.	–„–	Elmo A 30	1977	2	–	–	–	–	–	2	
34.	Megaphone	TOA ER 64 S	1973	3	–	3	–	–	–	–	
35.	–„–	TOA ER 64 S	1974	5	1	–	4	–	–	–	PPL DEMO FARM UP LAND
36.	–„–	TOA ER 64 S	1975	8	–	–	8	–	–	–	PPL DEMO FARM LOW LAND
37.	–„–	TOA ER 64 S	1977	4	–	–	–	2	2	–	REC Bandar Jaya & REC Pring Sewu
38.	–„–	TOA ER 64 S	1978	5	–	–	–	–	5	–	
39.	Tape Recorder	National reel	1973	1	–	–	–	–	1	–	
40.	–„–	Sony CF 1700	1974	2	–	2	–	–	–	–	
41.	–„–	Sony TC 156	1975	2	–	–	–	–	–	–	Lost
42.	–„–	National RQ 413 S	1977	4	–	–	–	2	2	–	REC
43.	–„–	Sony CIN 333 S	1979	5	–	–	–	–	5	–	Storage
44.	Transmission of reception app	TOA TA – 247 D	1973	1	–	1	–	–	–	–	
45.	Amplifire	TOA CA – 555	1978	1	–	1	–	–	–	–	
46.	Inverter		1978	1	–	1	–	–	–	–	
47.	Stabilizer	ELMO SVC – 2010	1978	1	–	1	–	–	–	–	
48.	Generator	HONDA E 2000	1978	1	–	1	–	–	–	–	
49.	Micropone	Dinamit DM – 620	1978	1	–	1	–	–	–	–	
50.	Loud Speaker	TOA SC – 25 C	1978	2	–	2	–	–	–	–	
51.	Over Head projector	Elmo HP 300	1976	1	–	1	–	–	–	–	
52.	–„–	Elmo HP 252	1977	1	–	–	–	–	1	–	
53.	Telephone	Pondovox	1973	1	–	–	–	1	–	–	Representative of T.M. (Tg. Karang)
54.	Ref regator	Fuji 1701	1973	1	1	–	–	–	–	–	
55.	Ref regator	National NR 200 F	1974	2	1	–	–	–	–	–	
56.	Black board	Lion 900 x 1800	1973	3	–	3	–	–	–	–	BARRACKS 1, R 1 = 1, R 2 = 1
57.	–„–	Lion 80 x 112	1974	10	–	10	–	–	–	–	
58.	–„–	Lion 900 x 1200	1975	10	10	–	–	–	–	–	Teginenang Centre Office
59.	–„–	Lion 90 x 180	1975	12	10	–	–	–	–	–	Teginenang Centre Office
60.	White board	Lion 900 x 180	1978	4	1	–	–	–	–	–	R.9 (meeting room)/Agriculture Exten-
61.	–„–	FPS – 152.15 K 60 C Kokuyo	1978	70	–	–	–	31	29	–	sion service Tg. Karang F. Laiman

1	2	3	4	5	6	7	8	9	10	11	12
62.	Camera	Canon F Tb.	1974	1	–	1	–	1	–	–	
63.	–„–	Asahi Pentox	1975	1	–	1	–	–	–	–	
64.	–„–	Olympus 35 DUB	1975	2	–	–	–	2	–	–	REC Bandar Jaya/Pring Sewu
65.	–„–	Olympus OM – 1	1979	1	–	–	–	–	1	–	Storage
66.	Movie Camera	Elmo Super 311	1976	1	–	1	–	–	–	–	
67.	–„–	Elmo Super 8 Pamd 350 SL	1977	1	–	–	–	–	1	–	
68.	Paper Cutter	Lion	1974	2	2	–	–	–	–	–	Tipying room
69.	–„–	Lion	1977	1	–	1	–	–	–	–	
70.	Portable Bed	Lion	1974	14	14	–	–	–	–	–	Totokaton
71.	Phiodolit	Nikon NP 2	1973	1	–	–	–	–	–	–	Material
72.	–„–	Nikon H. 5–25 K	1976	1	–	–	–	–	–	–	Ir, Sawadi Con
73.	Level AF	Nikon	1973	1	–	–	–	–	–	–	Material
74.	Level AF	Nikon	1976	2	–	–	–	–	2	–	Material
75.	Steel Cabinet	Lion TIS 84–4	1973	6	5	–	–	1	–	–	Tani Makmur Centre room
76.	–„–	Lion TIS 84–4	1974	5	5	–	–	–	–	–	Tani Makmur Tanjungkarang
77.	–„–	Lion	1973	3	3	–	–	–	–	–	
78.	Steel Filing Cabinet	Lion B 6 – 27	1977	1	1	–	–	–	–	–	
79.	Steel Rak	Lion Z – 5	1977	2	2	–	–	–	–	–	
80.	Duplicating Machine	Ricoh B – 4	1973	1	1	–	–	–	–	–	Administration room
81.	–„–	Ricoh E – 80	1976	1	1	–	–	–	–	–	Administration room
82.	–„–	Ricoh M – 205	1977	2	–	–	–	–	2	–	
	–„–	Ricoh E – 80	1979	5	–	–	–	–	5	–	Storage
83.	Tracing board	Lion 3 x 4 10/lamp	1976	1	–	1	–	–	–	–	
84.	Drawing table	Lion 120 x 900	1976	2	–	2	–	–	–	–	
85.	Hamberling	Lion m – 100	1976	20	20	–	–	–	–	–	Material
86.	Paper drill	Lion M – 170	1977	1	–	1	–	–	–	–	Information
87.	Stapler	Lion M – 34	1977	2	2	–	–	–	–	–	Administration
88.	Offset printing Machine	Toko 800 Ricoh	1977	1	–	1	–	–	–	–	
89.	Plate Maker Ricoh	Master Fox 8–4S	1977	1	–	1	–	–	–	–	
90.	Electric Memograph	Singer 289–51 T	1977	4	4	–	–	–	–	–	
91.	Sound System	National	1979								
	a. Amplifire	WA 565		1	–	–	–	–	1	–	
	b. Speaker	WS 1200 N		14	–	–	–	–	14	–	
	c. Macrophone	MN 312		1	–	–	–	–	1	–	
	d. Mic. Stand	WN 138		1	–	–	–	–	1	–	

1	2	3	4	5	6	7	8	9	10	11	12
62.	Camera	Canon F To.	1974	1	-	1	-	1	-	-	
63.	-„-	Asahi Pentox	1975	1	-	1	-	-	-	-	
64.	-„-	Olympus 35 DUS	1975	2	-	-	-	2	-	-	REC Bandar Jaya/Pring Sewu
65.	-„-	Olympus OM - I	1979	1	-	-	-	-	1	-	Storage
66.	Movie Camera	Elmo Super 311	1976	1	-	1	-	-	-	-	
67.	-„-	Elmo Super 8 Pamd 350 SL	1977	1	-	-	-	-	1	-	
68.	Paper Cutter	Lion	1974	2	2	-	-	-	-	-	Tipying room
69.	-„-	Lion	1977	1	-	1	-	-	-	-	
70.	Portable Bed	Lion	1974	14	14	-	-	-	-	-	Totokaton
71.	Phiodolit	Nikon NP 2	1973	1	-	-	-	-	-	-	Material
72.	-„-	Nikon H. 5-25 K	1976	1	-	-	-	-	-	-	Ir. Sawadi Con
73.	Level AF	Nikon	1973	1	-	-	-	-	-	-	Material
74.	Level AF	Nikon	1976	2	-	-	-	-	2	-	Material
75.	Steel Cabinet	Lion TIS 84-4	1973	6	5	-	-	1	-	-	Tani Makmur Centre room
76.	-„-	Lion TIS 84-4	1974	5	5	-	-	-	-	-	Tani Makmur Tanjungkarang
77.	-„-	Lion	1973	3	3	-	-	-	-	-	
78.	Steel Filing Cabinet	Lion B 6 - 27	1977	1	1	-	-	-	-	-	
79.	Steel Rak	Lion Z - 5	1977	2	2	-	-	-	-	-	
80.	Duplicating Machine	Ricoh B - 4	1973	1	1	-	-	-	-	-	Administration room
81.	-„-	Ricoh E - 80	1976	1	1	-	-	-	-	-	Administration room
82.	-„-	Ricoh M - 205	1977	2	-	-	-	-	2	-	
	-„-	Ricoh E - 80	1979	5	-	-	-	-	5	-	Storage
83.	Tracing board	Lion 3 x 4 10/lamp	1976	1	-	1	-	-	-	-	
84.	Drawing table	Lion 120 x 900	1976	2	-	2	-	-	-	-	
85.	Hamberling	Lion m - 100	1976	20	20	-	-	-	-	-	Material
86.	Paper drill	Lion M - 170	1977	1	-	1	-	-	-	-	Information
87.	Stapler	Lion M - 34	1977	2	2	-	-	-	-	-	Administration
88.	Offset printing Machine	Toko 800 Ricoh	1977	1	-	1	-	-	-	-	
89.	Plate Maker Ricoh	Master Fox B-4S	1977	1	-	1	-	-	-	-	
90.	Electric Memograph	Singer 289-51 T	1977	4	4	-	-	-	-	-	
91.	Sound System	National	1979								
	a. Amplifire	WA 565		1	-	-	-	-	1	-	
	b. Speaker	WS 1200 N		14	-	-	-	-	14	-	
	c. Macrophone	MN 312		1	-	-	-	-	1	-	
	d. Mic. Stand	WN 138		1	-	-	-	-	1	-	

1	2	3	4	5	6	7	8	9	10	11	12
											Storage
02.	Wireless ampl. System,	National	1979								
	a. Wireless Amplifire	WX 831		1	–	–	–	–	1	–	
	b. Wireless mic.	WX 410 S		1							
03.	Park room	Hanza Type A	1979	1	–	–	–	–	1	–	
04.	Dark room for colour	FUJI	1979								
	a. New professional enlarger	Fuji S. 690	1979	1	–	–	–	–	1	–	
	b. Enlarger less	Fuji EP 50/3.5	1979	1	–	–	–	–	1	–	
	c. Pro of colour Lead	Fuji New S 690	1979	1	–	–	–	–	1	–	
	d. Down transformer		1979	1	–	–	–	–	1	–	
	e. Colour hobby ket	Fuji	1979	1	–	–	–	–	1	–	
	f. Colour paper	Fuji 13 x 18 cm	1979	30	–	–	–	–	30	–	
	g. Enlargement E set	Henza	1979	1	–	–	–	–	1	–	
	h. Enlarging casel	Henza	1979	1	–	–	–	–	1	–	
	i. Down transformer	. . . . .	1979	1	–	–	–	–	1	–	
05.	Radio Cossette	Sony CPM – 31 S	1980	5	1	–	–	1	3	–	Agriculture Extension Service Tg. Karang
06.	Portable Calculator	Yokokawa YHP – 97	1980	1	1	–	–	–	–	–	Administration of Tg. Centre

Table 35 : List of Agriculture Equipment Inventory
1973 – 1980

NO.	ITEMS	ARRIVE	UNIT	TOTAL	NOTE
	1	2	3	4	5
I.	BULDOZER:	Mei 73	UNIT	1	Tegineneng
1.	Bulldozer Komatsu D–60–A				Totokaton Sukabandung Gunung Batin
2.	Bulldozer Komatsu D–50–A	,,	,,	1	Tegineneng Totokaton Sukabandung Teluk Betung Sukanegara
3.	Bulldozer Komatsu D–30–S	,,	,,	1	Tegineneng C.
	(Shovel) Back Hoe	,,	,,	1	Bekri Totokaton Way Seputih Teluk Betung Teluk Betung
4.	Fork lift	,,	,,	1	
II.	TRUCK:				
1.	Hino Dump Truck Km: 310	,,	,,	3	Tegineneng C.
2.	Hino Chargo Truck Km: 310	,,	,,	2	1. Tegineneng 1. Diperta
3.	Chargo Truck Toyota	,,	,,	2	1. K.B.S.P. 1. Diperta.
4.	Mitsubishi Truck TO–6–AV	,,	,,	1	Dinas Pertanian
5.	Mitsubishi Truck Fuso T 653	1975	,,	4	2. Tegineneng 1. Diperta 1. KBS Ampera
6.	Truck Chargo Crane KE. 300	Sep. 1976	,,	1	Tegineneng
7.	Mazda Chargo Truck T–4100	,,	,,	1	Tegineneng
8.	Isuzu Service car TSD–40	Juni 80	,,	1	Tegineneng
III.	JEEP/PICK UP/STATION				
1.	Jeep Toyota FJ–40–UV–C	Mei 73	,,	3	2 Diperta 1 Tegineneng
2.	Station wagon Toyota J–55	,,	,,	2	1 SPPMA 1 Diperta
3.	Mitsubishi wagon J–34	,,	,,	1	1 Diperta 1 Diperta
4.	Toyota Sedan Crown 68 VJ	,,	,,	1	Jakarta.

	1	2	3	4	5
5.	Toyota Jeep FJ-55-FV-KC	Sep 1976	UNIT	3	3 Tegineneng
6.	Toyota Station FJ-55-RV-KC	,,	,,	3	2 Tegineneng 1 Jakarta
7.	Mazda Microbus 26 AE X C-10	,,	,,	2	1 Diperta 1 Tegineneng
8.	Mazda Pick up 1600/8NA-10	,,	,,	2	1 Diperta 1 Tegineneng
9.	Mitsubishi Jeep Station Wagon J. 96-A	Sep 1977	,,	2	1 Tegineneng 1 Diperta
10.	Nissan Jeep Patrol	,,	,,	3	1 Tegineneng 1 Lam Teng 1 Lamsel
11.	Mitsubishi Jeep Station 5-38-R	Agst 78	,,	1	1 Tegineneng
12.	Station wagon Toyota FJ-55-RV-KC-2F	1979	,,	5	5 Tegineneng
13.	Mitsubishi Pick up Delica H-T 121E	,,	,,	1	Tegineneng
14.	Station wagon toyota FJ-55-RV-KC-2F	1980	,,	1	Tegineneng
IV.	MOTOR CYCLE:				
1.	Suzuki 90 CC	1973	,,	5	PPL Tani Mak.
2.	Yamaha 90 CC	1973	,,	5	—,,—
3.	Suzuki	1974	,,	10	PPL & Staf TM
4.	Yamaha YB-90 CC	1974	,,	10	PPL & Staf Diperta
5.	Yamaha AG 100 CC	1976	,,	10	KDP+Staf TM.
6.	Suzuki Ts-100 CC	1978	,,	20	PPL+SW.TM.
7.	Suzuki TS-100 CC	1979	,,	15	PPL Staf T.M.
8.	Yamaha YB-125 CC	1977	,,	20	17 PPL REC+3TM
9.	Suzuki TS-125	1980	,,	15	Mantri Tani.
V.	FOUR WHEEL TRACTOR:				
1.	Iseki Zeter 8011	Mei 73	,,	2	Tegineneng
2.	Tractor Zeter Iseki Tz-6714	Des 75	,,	4	1 SPMA 2 Tegineneng
3.	Tractor Zeter Iseki TZ-4712	Agst 74	,,	4	2 Tegineneng 1 Sukadana 1 KBSP.
4.	Tractor Zeter Iseki TZ-4714	Sep 76	,,	2	1 Tegineneng 1 KBSP Pekalongan.

	1	2	3	4	5
5.	Tractor Zeter Iseki TZ–4714	Nov 1977	UNIT	2	1 LPUT Pekal. 1 Tegineneng
6.	Tractor zetor iseki TZ–5714	„	„	5	Tegineneng
7.	Tractor Mini Iseki TX 1500 F	„	„	2	2 Tegineneng
8.	Tractor Satoh S–630–D	1979	„	1	Tegineneng
				22	
VI.	GENERATOR LISTRIK :				
1.	Generator Listrik 30 KVA	Mei 73	„	3	Tegineneng
				3	
VII.	RICE TRANSPLANTER:				
1.	Rice Transplanter FF 410	Agst. 77	„	2	Tegineneng
				2	
VIII.	RICE MILL :				
1.	Rice Mill RV. 500	Sep. 74	„	1	Totokaton
2.	Rice Cleaner PC–40	„	„	1	–„–
3.	Rice Polisher	Sep. 76	„	1	Bulusari
4.	Rice Mill Unit satake KE S8–10–D dengan Mesin Mitsubishi 18 PK	1978	„	16	1 Bulusari 1 Tempuran 1 Hadimulyo 1 Margo Agung 1 Dono Arum 1 Rengas 1 Adi Luwih 9 Tegineneng.
5.	Rice Mill Unit Satake S8–10–D Dengan Mesin Mitsubishi 18 PK	1979	„	2	Tegineneng
				2	
IX.	BINDER :				
1.	Binder	Agst 74	„	1	Tegineneng
2.	Binder	Okt 75	„	1	Tegineneng
				2	
X.	PEDAL TRESHER:				
1.	Pedal Tresher	Okt 75	„	50	5 Punggur 5 Metro 5 Batang Hari 4 SK Nuban. 4 Sekampung.

	1	2	3	4	5
	Pedal Tresher	Okt 75	UNIT	4	4 Trimurjo 4 Natar 4 Gd Tataan 4 Ter. Besar 4 Sukadana 4 Gn. Sugih 2 Pekalongan 1 Tegineneng.
2.	Pedal Tresher	1979	,,	15	
3.	Pedal Tresher	1980	,,	20	—,,—
XI.	AUTOMATIC TRESHER:				
1.	Automatic Tresher D–21–KS	Mei 73	,,	5	Tegineneng
2.	Automatic Tresher D–21–KS	Mei 75	,	4	Up Land Low Land KBSP.
3.	Automatic Tresher D–21–KS	Feb. 76	,,	4	Low Land
4	Automatic Tresher	Sep. 76	,,	14	6 Low Land
				27	8 Centre
XII.	WINNOWER:				
1.	Winnower Tauchoth	Ags. 74	,,	4	1 Sukabandung 1 Totokaton 2 Centre
2.	—,,—	Okt. 75	,,	10	7 Low Land 3 Up Land
3.	—,,—	Sep. 76	,,	24	12 Up Land 11 Low Land 1 Centre
4.	—,,—	Agst. 77	,,	20	Tegineneng
5.	—,,—	1980	,,	20	Tegineneng
XIII.	HAND SPRAYER				
1.	Hand Sprayer Maruyama	Mei 73	,,	10	Low Land
2.	Hand Sprayer SG–10	Ags. 74	,,	30	Low Land & Up Land
3.	Hand Sprayer CS8	Sep. 74	,,	30	Low Land & Up Land Tegineneng, Pengujian
4.	Hand Sprayer Arimitshu SA–6. S	Des. 75	,,	36	Low Land
5.	Hand Sprayer Arimitshu SA.6.S	Sep. 76	,,	200	109 Up Land 49 Low Land 3 Centre 6 Pengujian
6.	Hand Sprayer Arimitshu SA.6.S	Feb. 77	,,	526	285 Up Land 69 Low Land 144 Diperta 17 Tegineneng
				832	

	1	2	3	4	5
XIV.	**MIST BLOWER :**				
1.	Mist Blower Arimitshu HD. 55	Mei 73	UNIT	55	Up Land & Low Land
2.	—„—	Ags. 74	„	5	Tegineneng
3.	—„—	Des. 75	„	5	Low Land
4.	—„—	Apri. 76	„	45	30 Up Land 12 Dinas 3 Tegineneng.
5.	Mist Blower Yanmar MK 150	Juni 80	„	150	150 Brigade-Proteksi.
XV.	**POWER SPRAYER:**				
1.	Power Sprayer Arimitshu CS–34–MK	Agst 77	„	59	35 Low Land 8 Up Land
2.	Power Sprayer Arimitshu KF. 53 (Engine)	„	„	49	27 Brid. Prot 2 Tegineneng.
3.	Power Sprayer CS–40–MKB	Apr 79	„	13	4 R.E.C.
				121	
XVI.	**CORN SHELLER:**				
1.	Corn Sheller Caneco IS. 400	Mei 73	„	2	Tegineneng
2.	—„—	Sep 74	„	2	—„—
3.	—„—	Des. 74	„	2	—„—
4.	Corn Sheller Cikuma	Sep. 76	„	11	11 Up Land
				17	
XVII.	**POWER TILLER:**				
1.	Power Tiller Iseki KE. 1000–46	Mei 73	„	5	Tegineneng
2.	—„— KE. 1000–35	Ags. 74	„	15	35 Low Land 11 Up Land
3.	—„— Yanmar Y2–8 N	Sep. 74	„	10	6 Diperta
4.	—„— Iseki KE. 1000–35	Okt. 75	„	20	16 Low Land + Up Land
5.	—„— KE. 1000–35	Des. 75	„	16	11 Tegineneng
6.	Power Tiller Iseki	Sep. 76	„	13	
				79	
XVIII.	**COMBINE :**				
1.	Combine HD–500 F	Agst. 74	„	1	Tegineneng
2.	Combine Iseki HD–3100	Jan. 79	„	1	Tegineneng
				2	

	1	2	3	4	5
XIX.	**BOTTOM PLOW:**				
1.	Bottom Plow TB. 163	Agst. 74	UNIT	1	Tegineneng
2.	Bottom Plow MGP–142 B	„	„	1	Tegineneng
3.	Bottom Plow MGP–142 B	Des. 75	„	2	Tegineneng
				4	
XX.	**DISK PLOW:**				
1.	Disk Plow MDP–623 C	Ags. 74	„	2	Tegineneng
2.	–„– MDP–623 C	Des. 75	„	4	1 KBSP
					1 Sukabandung
					2 Tegineneng
3.	–„– MDP–623 C	Sep 76	„	2	1 LPUT Pek.
					1 KBSP Ampera
4.	–„– MDP–623 C	Nov 77	„	5	1 SPMA
				13	4 Tegineneng
XXI.	**DISK HARROW:**				
1.	Disk Harrow MLH–304	Agst. 74	„	2	Tegineneng
2.	Disk Harrow MDP–2024 P	Des. 75	„	4	1 KBSP
					1 Sukadana
					2 Tegineneng
3.	Disk Harrow	Sep. 76	„	2	1 LPUT
					1 KBSP Ampera
4.	Disk Harrow	Nov. 77	„	5	1 SPMA
				13	4 Tegineneng
XXII.	**TOOTH HARROW:**				
1.	Tooth Harrow MTH–304	Agst. 74	„	1	Tegineneng
2.	–„–	Sep. 76	„	2	Tegineneng
3.	–„–	Nov. 77	„	4	Tegineneng
				7	
XXIII.	**PADDY DRYER :**				
1.	Satake	Ags.t 78	„	1	Tegineneng
2.	Satake MDR–3203	Agst. 79	„	2	Tegineneng
3.	Satake MDR–3203 B	Jun. 80	„	4	Tegineneng
				7	

1		2	3	4	5
XXIV.	PADDY CLEANER :				
1.	Satake Pc–06–B	Jun. 80	UNIT	1	Tegineneng
				1	
XXV.	WATER PUMP :				
1.	Mitsubishi		,,	2	Tegineneng
				6	1 Tegineneng
					5 Gudang Centre
2.	Kubota		,,	5	Gudang
				13	
XXVI.	SPRINKLER:				
1.	Mitsubishi		,,	1	Tegineneng
				1	

Table 36 : Development of Rice Mill Unit (RMU) Lampung Tani Makmur Project.

No.	Village Dem-farm	Amount	Type	Capacity (kg. dried rice/ hour)	Product 1) (kg. mill rice)	Net benefit (Rp.)	Duration	Note
1.	Hadimulyo	1 Unit	SATAKE SB-10-D	650 – 750	126,544	794,581.75	Dec. – May. '80	79/80
2.	Bulusari	1 Unit	ditto	650 – 750	27,999	296,700	August – Nov. '79	78/79
3.	Tetokaton	1 Unit	YANMAR	200 2)	25,550	201,950	October – Nov. '79	67/77
4.	Donoarum	1 Unit	SATAKE SB-10-D	650 – 750	54,546	384,008	Nov. – Mart. '80	78/79
5.	Tempuran	1 Unit	– ditto –	650 – 750	25,815	249,504.50	Oct. – Nov. '79	78/79
6.	Margo Agung	1 Unit	– ditto –	650 – 750	18,886	194,185.75	Sep. – Nov. '79	79/80
7.	Rengas	1 Unit	– ditto –	650 – 750	new	–	–	79/80
8.	Adiluwih	1 Unit	– ditto –	650 – 750	new	–	–	79/80

Note : 1) include bewon (peyment) for RMU.
2) kg. of mill rice.

Source : Lampung Tani Makmur Project.

表１　ランポン州の耕地面積および人口

（単位：ha，人）

年度	耕地面積			総人口	農村労働力人口[2]
	水田	乾地	合計		
1977	109,366	386,245	495,611	3,707,324	3,151,225
1978	126,966	427,520	554,486	3,820,481	3,247,409
1979	131,049	468,795	599,844	4,020,292	3,417,248
1980[1]	135,549	510,070	645,619	4,230,553	3,595,970

注：１）　1980年の耕地面積は推定値

　　２）　農村労働力人口は，総人口の約85％である，という前提に基づいて算出されている。

出所：　インドネシア側提出資料に基づいて，筆者が作成。

表２　ランポン州における食用作物生産（1977～1980年度）

作物[1]	1977			1978			1979			1980		
	収穫面積	生産量		収穫面積	生産量		収穫面積	生産量		収穫面積	生産量	
		合計	収量		合計	収量		合計	収量		合計	収量
	ha	t	kg/ha	ha	t	kg/ha	ha	t	kg/ha	ha	t	kg/ha
米	252,862	562,870	2,226	253,948	595,699	2,300	267,972	623,093	2,325	271,041	606,581	2,238
トウモロコシ	44,207	62,338	1,410	47,434	64,654	1,363	58,928	84,734	1,437	50,979	65,436	1,284
キャッサバ	71,871	866,092	12,051	78,853	916,270	11,620	83,826	1,020,363	12,172	84,494	1,023,035	12,108
サツマイモ	3,126	22,906	7,326	2,784	19,331	6,944	3,392	23,083	6,805	2,364	18,908	7,998
落花生	5,584	4,012	718	8,394	5,855	698	8,566	6,243	729	8,531	6,172	724
大豆	31,302	28,056	896	37,246	28,569	767	35,202	21,411	608	39,224	26,352	672
緑豆	1,588	1,008	635	1,293	724	560	2,260	1,689	747	1,342	798	595

注：１）　収穫形態　　米……乾燥籾米
　　トウモロコシ……乾燥粒
　　キャッサバ……生根
　　サツマイモ……生根
　　落花生……乾燥粒
　　大豆……〃
　　緑豆……〃

インドネシア側提出資料により，筆者が作成。

表3　ランポン州における人口1人当り食料摂取状況

（単位：ルピア／人口1人当たり・年間）

順	年度	デンプン質食料	タンパク質食料	合　計
1	1977	9,975	1,751	11,726
2	1978	9,726	2,004	11,730
3	1979	13,521	2,383	15,904
4	1980	14,256	2,735	16,991

注　：　デンプン質食料とは米，とうもろこし，イモ類をいう。
　　タンパク質食類とは豆類をいう。

出所　：　インドネシア側提出資料より編者が作成。

表4　各州都における平均生計費指標の推移（1970－78）
（1966年9月を100とする）

年度	1970		1971		1972		1973		1974		1975		1976		1977		1978	
州＼品目	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資	食料品	一般消費物資
South Sumatra	637	681	620	638	700	755	1283	1155	1692	1516	1778	1664	2044	1872	2268	2070	2876	2253
Jambi	784	780	818	818	801	809	1235	1134	1623	1521	1529	1559	1863	1816	2094	2018	2309	2174
Lampung	400	396	393	401	464	452	681	621	980	860	964	903	1112	1033	1313	1186	1454	1274
DKI Jakarta	610	612	626	639	691	680	991	891	1400	1253	1688	1492	2060	1788	2280	1985	2458	2146
West Java	656	682*	708	733	811	806	1087	1024	1483	1392	1696	1650	1984	1885	2256	2098	2403	2208
Central Java	724	718	825	799	842	810	1226	1076	1536	1397	1758	1627	2112	1897	2345	2093	2526	2224
Jogjakarta	736	731	795	794	908	880	1364	1213	1649	1502	1913	1825	2228	2123	2591	2398	2821	2570
West Kalimantan	789	775	738	764	774	789	1284	1162	1536	1425	1549	1558	1864	1826	2017	1955	2051	2004
平　均	667	672	690	704	749	748	1144	1035	1487	1358	1609	1535	1908	1780	2146	1975	2362	2107

注　：　*11ヵ月間の平均

出所　：　STATISTICAL YEARBOOK OF INDONESIA, 1975, 1977
　　〃　　1977～1978より，LTMプロジェクト・チームが作成。

表5　水田ブセ・ファームの活動状況（1977/78〜1979/80）

番号	郡名／村名	1977/78							1978/79						1979/80					
		面積(ha)		農民組織		貸付回収		(Rp)	インマス	農民組織		貸付回収		(Rp)	インマス	農民組織		貸付回収		(Rp)
		灌漑面積	インマス	人数	Kelompok数	計画額	実績	残高	面積(ha)	人数	Kelompok数	計画額	実績	残債	面積(ha)	人数	Kelompok数	計画額	実績	残高
I	TRIMURJO																			
1	Purwodadi	20.	26.	45	4.	702000.	702000	−	23.8	45.	4.	743,180.	679,000	64,150.	26	45	4	624,000		
2	Purwodadi	20.	24.7	54	4.	666,900.	666,900	−	24.7	52.	4.	642,200.	595,500	46,700.	24.9	57	4	672,455		
3	Tampuran	20.	25.	53	4.	675,000.	675,000	−	28	53.	4.	520,000	490,000	30,000.	26.66	41	4	707,000		
4	Liman Benawi	13.5	9.	21	2.	243,000.	210,000.	33,000.	9.07	20.	2.	266,170.	227130.	39,020.	8.73	19	2	240,215		
	小　計	73.5	84.7	173.	14.	2,286,900.	2,253,900.	33,000	85.57	170.	14.	2,171,520	1,991,650	179,870	86.28	162.	14	2,243,650		
II	PUNGGUR																			
5	Asiomulyo	20.	18.5	37	3.	490,500.	475,500.	24,000.	18	37	3.	486,000	475,000	11,000	18	37	3.	486,000.		
6	Ngestirahayu	20.	19.5	34	3.	526,500.	498,000	28,500.	19.5	34	3.	526,500	526,500	−	19.5	34	3.	526,500		
7	Sumber Rejo	20.	20.	43	4.	560,000.	560,000	−	21.5	43	4.	602,000.	602,000.	−	21.5	43.	4.	580,500		
8	Totokaton	100.	100.	213	12.	2,700,000.	2,700,000	−	100.	213	12.	2,700,000.	2,700,000	−	100	177.	12.	1,700,000		
	小　計	160.	158.	327.	22.	4,286,000.	4,233,500	52,500.	159.	327.	22.	4,314,500	4,303,500	11,000	159.	291	22.	4,293,000		
III	METRO																			
9	Ganjar Agung	20.	23.	56	4.	644,000.	550,000	94,000	23	54	4.	598,000	470,000	128,000	23.37	59	4	654,360		
10	Hadimulyo	20.	22.	51	4.	638,000.	638,000	−	20	51	4	580,000	580,000	−	21.	49	4	588,000		
11	Tejosari	20.	20.	64.	4.	540,000.	495,500	44,500	20.	61	4	540,000.	540,000	−	25.	64	4	700,000		
12	Yosodadi	20.	21.5	44.	4.	580,500.	550,000	30,500	20	44	4	593,625	593,625.	−	21.5	50	4	592,325		
13	Margo Rejo	20.	20.	36.	4.	540,000.	525,000	15,000	13	36	4	664,000.	312,000	352,000	23	38	4	644,000		
	小　計	100.	106.	251.	20.	2,942,500.	2,758,500	184,000.	96.	246	20	2,975,625.	2,495,625	480,000	113.87	260.	20	3,178,685		
IV	PEKALONGAN																			
14	Tulus Rejo	16.4	16.5	39	3.	445,500	430,500	15,000.	16.5	39	3	462,000	380,000	82,000	16.5	44	3	404,250		
15	Siraman	15.	14.	33	3.	378,000.	350,000	28,000.	14.	33	3.	364,000	250,000	114,000	15.5	31	3	454,675		
	小　計	31.4	30.5	72.	6.	823,500.	780,500.	43,000	30.5	72.	6.	826,000	630,000	196,000	32	75	6.	858,925		
V	BATANG HARI																			
16	Banarjaya	30.	41.	72	6.	1,107,000.	1,050,500.	56,500	37.5	72	6.	1,004,800	990,170.	14,630.	30.5	75	6.	1,053,550		
17	Telogo Rejo	15.	18.	36	3.	486,000.	440,500	45,500.	9.5	20	3.	232,750	195,200.	37,550.	18.6	33	3.	465,000		
18	Bumiharjo	20.	31.	65	5.	837,000.	837,000	−	25.5	45	4.	837,000	837,000	−	29.21	63	4	976,016		
19	Bumi Mas	15.	18.	34	3.	486,000.	440,000	46,000.	3.5	34	3	98,000	38,920	19,080.	17	35	3.	450,000		
20	Bala Rejo	15.	18.	37	3.	486,000.	475,000	11,000	16.5	37	3	450,000	389,100.	60,900.	17	37	3	450,000		
	小　計	95.	126.	244.	20.	3,402,000.	3,243,000	159,000.	92.5	208	19.	2,022,550	2,490,390	132,160.	121.31	243.	19	3,394,566		

VI	SEKAMPUNO																			
21	Hargomulyo	20	23	56	4.	621,000	621,000	-	23	56	4.	440,000	440,000	-	22.5	56	4	562,500		
22	Wonokarto	20	25.08	43	4.	677,160.	650,500.	26,660.	23	43	4	629,625.	581,500.	48,125	24.84	43	4	621,000		
23	Sumbergadi	15	16.5	33	3.	445,500.	425,500	20,000	16.5	33	3	462,000	462,000	-	16.5	33	3	412,500		
24	Sidodadi	25	29.5	68	5.	796,500.	775,500.	21,000	30	68	5	617,500	610,500	7,000	30.76	69	5	769,000		
	小 計	80.	94.08	200.	16.	2,540,160.	2,472,500.	67,660	92.5	200.	16	2,149,125	2,094,000	55,125	94.60	201	16	2,365,000		
VII	SUKARAJA NUBAN																			
25	Sukaraja Nuban	20	24.6	40	4.	661,500.	450,500	211,000	19.5	40	4	526,500	480,000.	46,000	18	40	4.	486,000		
26	Purwosari	20	24.5	40	4.	661,500.	575,500.	86,000.	20	40	4	540,000	515,000	25,000	20	40	4	540,000		
27	Kedaton	20	23.5	40	4.	634,500.	480,000	154,500.	18	40	4	486,000	450,500	35,500	18	40	4	486,000		
28	Tulungbalak	15.	10	19	2.	270,000	210,000	60,000.	15.	19	2	405,000	385,000	20,000	15	19	2	405,000		
	小 計	75.	82.5	139.	14.	2,227,500.	1,716,000	511,500.	72.5	139.	14	1,957,500	1,831,000	126,500	71	139	14	1,917,000		
VIII	SEPUTIH KAMAN																			
29	Kama Utma	20	11.5	37	4.	310,500.	310,500.	-	20	37	4.	710,000	557,500	152,500	20	37	4	510,000	510,000.	-
30	Rukti Harjo	20	14.5	38	4.	391,500.	391,500.	-	20	38	4.	620,000	475,000.	144,500	15	38	4	360,000	360,000	-
31	Rejosari	20	8.25	23	1.	222,750.	222,750.	-	20	23	1.	500,000	500,000	-	20	26	1	510,000	510,000	-
32	Rejo Basuki	10	11.25	19	2.	303,750.	303,750	-	10	19	2.	250,000	250,000	-	10	19	2	255,000	255,000	-
33	Kama Gunawan	20.	-	30	3.	560,000.	560,000.	-	20.	30	3.	660,000	504,500	155,500	30	30	3	640,000	640,000	-
	小 計	90.	45.5	147.	14.	1,788,500	1,788,500.	0	90.	147.	14	2,740,000	2287,500	452,500.	95.	150.	14.	2,275,000	2,275,000	
IX	KAMAN UTARA																			
34	Rejo Binangun	20	15	24	3.	420,000.	420,000	-	14.75	24	3	490,000.	470,000	20,000	20	24	3.	510,000	510,000	-
35	Raman Aji	20	16.5	45	4.	462,000.	462,000	-	21.5	45	4	513,3125	477,500	35,812.	21.5	45	4.	569,750.	569,750	-
36	Ketuadaya	20	15	30	3.	405,000	405,000	-	20	30	3	560,000.	550,000	10,000	20	30	3	494,000.	494,000	-
37	Sukti Sadiyo	20	15.	36	3.	405,000.	405,000	-	20	36	3	525,000.	525,000	-	20	36	3	480,000.	480,000	-
	小 計	80	61.5	135	13.	1,692,000.	1,692,000	0	76.25	135.	13	2088,312	2022,500.	65,812	81.5	135	13	2,053,750	2,053,750	
X	PURBOLINGGO																			
38	Taman Pajar	20	10	42	4.	280,000	280,000	-	27	42	4	650,000	550,000	100,000.	27.	42	4.	729,000	729,000.	-
39	Toto Harjo	20	10	25	2.	280,000	280,000	-	20	25	2	660,000.	544,000	116,000.	21.6	23	2.	602,000		-
40	Toto Mulyo	20	10	30	3.	280,000	280,000	-	26	26	2.	650,000	650,000	-	26	26	2.	702,000		-
41	Tanjung Kesuma	15	5	25	2.	140,000	140,000	-	15	25	2.	387,000	380,000	7,000.	15	29	2.	420,000		-
	小 計	75.	35.	162.	11.	980,000	980,000	0	88	158	10.	2347,000.	2124,000	223,000.	89.5	158	10	2,453,000	729,000	-
	合 計	850.9	824.2K	1,850	150.	22,969,000	21,918,400	1,050,660.	882K2	1,802.	148.	24,092,132	22,270,165	1,921,967.	944.06	1814	148	25,032,576.	5,057,750	

出所：インドネシア側提供資料より、筆者が再集計。

表 6 畑作デモ・ファームの活動状況（1977/78〜1979/80）

番号	郡名／村名	1977/78 面積(ha) 援助対象	1977/78 面積(ha) インテンス	1977/78 農民組織 人数	1977/78 農民組織 Kelompok数	1977/78 資金回収(Rp) 目標額	1977/78 資金回収(Rp) 実績	1977/78 資金回収(Rp) 残額	1978/79 インテンス面積(ha)	1978/79 農民組織 人数	1978/79 農民組織 Kelompok数	1978/79 資金回収(Rp) 目標額	1978/79 資金回収(Rp) 実績	1978/79 資金回収(Rp) 残高	1979/80 インテンス面積(ha)	1979/80 農民組織 人数	1979/80 農民組織 Kelompok数	1979/80 資金回収(Rp) 目標額	1979/80 資金回収(Rp) 実績	1979/80 資金回収(Rp) 残額
I	KEDATON																			
1	Margo Agung	103	13.75	21	1	275,000.	275,000	−	82	150	7	1,389,900	1,389,000.	−	82	150	7	1,640,000		
2	Margo Dadi	82.75	8	20	1	160,000.	160,000.	−	100.	204	6	1,695,000	1,695,000.	−	100	204	6	2,000,000		
	小計	185.75	21.75	41	2	435,000.	435,000	0	182.	354	13	3,084,900	3,084,000.	0	182	354	13	3,640,000		
II	NATAR																			
3	Rulung Helak	115	115	244	18	2,300,000.	1,891,750	408,250	132.	244.	18.	2,640,000	2,640,000	−	130	244	18	2,340,000		
4	Handugang	20	20	48	5.	400,000.	329,000.	71,000	20.	75.	6.	339,000	339,000.	−	25	75	6	450,000		
5	Merak Batin	10	10	15	3.	200,000.	164,500.	35,500	−	29	4.	−	−	−	15	29	4			
6	Sukadamai	65	35	72	4	630,000.	575,750.	54,250	60.	72	7.	1,017,000.	1,017,000.	−	60	72	7	1,080,000		
7	Gedong Gumanti	30	15	48	3	300,000.	300,000	−	30.	105.	4.	508,500.	508,500.	−	40	105	4	720,000		
8	Kresno Wododo	127.25	27.25	60	5	545,000.	545,000	−	12	270.	18.	203,400.	203,400.	−	100	270	18	1,800,000		
9	Bumi Agung	103	13.75	21	1	275,000.	275,000	−	75	238.	7.	1,271,250.	1,271,250.	−	82.5	238	7	1,485,000		
	小計	470.25	236.00	517	39	4,650,000.	4,081,000	569,000	329.	1,033	64	5,979,150.	5,979,150.	0	452.5	1,033	64	7,875,000		
III	GEDUNG TATAAN																			
10	Halangan Ratu	87	18	48	2	360,000	360,000	−	76	206.	12.	1,135,625	1,135,625	−	75	206	12	1,350,000		
11	Kagungan Ratu	67	26.875	39	3	537,500	442,093	95,407	67	214.	8.	254,250	254,250.	−	67	219	8	1,206,000		
12	Pejambon	35	35	37	4	700,000	575,750	124,250	20	37	4	360,000	360,000	−	20	37	4	360,000		
	小計	189	79.875	124	9	1,597,500	1,377,843	219,657	162	457	24	1,749,875	1,749,875	0	162	462	24	2,916,000		
IV	SUKOHARJO																			
13	Waringin Sari	87.5	27.5	93	4	495,000.	452,375.	42,625	87.5	206.	11.	1,470,000.	322,000.	1,148,000.	87.5	206	11	1,575,000		
14	Bandung Baru	62.125	22.125	50	3	398,250	398,250	−	60.	123.	8.	1,008,000.	1,008,000.	−	60	123	8	1,080,000		
15	Enggal Rejo	75	25.	54	3	450,000.	411,250.	38,750	75.	135.	9.	1,260,000.	1,260,000.	−	75	135	9	1,350,000		
16	Adi Luwih	102	20.	73	4	360,000	360,000.	−	102.	243.	9.	1,713,600.	1,713,600.	−	102	243	9	1,836,000		
	小計	326.625	94.625	270	14	1,703,250	1,621,875	81,375	324.5	707.	37	5,451,600.	4,303,600.	1,148,000.	324.5	707	37	5,841,000		
V	GUNUNG SUGIH																			
17	Sidokerto	140	110	224	16.	1,980,000.	1,980,000.	−	140	224.	16.	2,132,200.	2,132,200.	−	140	224	16	2,450,000		
18	Bulu Sari	145	103	219	14.	1,854,000.	1,854,000	−	145	281.	16.	2,208,350.	2,208,350.	−	150	281	16	2,625,000		
19	Rengas	21.80	21.8	36	5.	392,400.	358,600.	33,790.	25	42	6.	380,750.	380,750	−	30	42	6	525,000		
20	Bumi Raharyu	132.75	104	201.	10.	1,872,000.	1,710,800.	161,200.	132.75	201.	5.	2,021,782.	2,021,782	−	132.77	201	5	*		
21	Bumi Raharjo	142.75	80	159.	11.	1,440,000.	1,316,000	124,000.	142.75	201.	12.	2,177,840.	2,177,840.	−	142.75	201	12	*		
22	Terb.Numbing	141	110.	198.	12.	1,980,000.	1,809,500	170,500.	141	190.	11.	2,147,430.	2,147,430.	−	141	190	11	*		
23	Terb.Agung	48	48	98	8.	864,000.	789,600	74,400.	48.	110.	12.	731,040.	731,040.	−	75	110	12	*		
24	Kesumadadi	110	91.	142.	9.	1,638,000	1,638,000	−	110.	142.	10.	1,075,300.	1,075,300.	−	100	142	10	*		
25	Sukajadi	105	30.	71	3.	540,000.	540,000	−	75.	177.	8.	1,142,250.	1,142,250.	−	75	155	8	1,212,500		
26	Sido Waras	179	55	45	3.	990,000.	990,000	−	179.	221.	19.	2,726,170.	2,726,170.	−	179	161	19	*		
27	Gn.Sugih Kampung	114.5	30	128	7.	540,000.	540,000	−	114.5	212.	12.	1,743,835.	1,743,835.	−	114.5	212	12	2,003,750		
	小計	1279.6	782.8	1521	98.	14,090,400	13,526,510	563,890	1,253.00	2,001	127	19,086,047	19,086,047	0	1,280.00	1,919	127	22,140,000		

VI	BANOUNREJO																		
28	Tanjung Jaya	150	32	37	3	576,000	526,400	49,600	90	160	10.	1,512,000.	1,512,000.	-	90.	160	10	1,575,000	
29	Sri Pendowo	100	28	52	3.	504,000	504,000	-	100	161	7.	1,680,000.	1,680,000.		100.	161	7	1,75 000	
30	Sidodadi	40	15	49	2.	270,000	246,750	23,250	45	100	5.	756,000.	641,500.	114,500	45	100	5	787,500	
31	Sidorejo	120	30	64	3.	540,000.	540,000	-	120	207	8	2,016,000	2,016,000.	-	120	207	8	2,100,000	
32	Sukanegara	100	24	60	2	432,000.	432,000	-	100	178	7	1,680,000.	1,680,000.		100	178	7	1,750,000	
33	Dangunrejo	60	23	46	2	414,000.	378,350	35,650	60	143	5.	1,008,000	1,008,000		60	143	5	1,050,000	
34	Sinar Seputih	100	18	41	2	324,000	296,100	27,900	50	95	5	840,000	840,000		50	95	5	875,000	
	小 計	670	170	349	17	3,060,000	2,923,600.	136,400	565	1,044	47	9,492,000	9,377,500	114,500.	565.	044	47	9,887,500	
VII	KALIREJO																		
35	Watu agung	110	30	68	3	540,000.	540,000	-	110	277	9.	1,848,000.	219,000.	1,629,000.	110	277	9	1,925,000	
36	Sinar Sari	50	15	54	3	277,500.	277,500	-	45	107	4	756,000.	756,000	-	45	107	4	787,000	
37	Ponco Warno	26	15	53	3.	277,500.	277,500	-	30	54	3.	504,000	504,000	-	30	54	3	525,000	
38	Sri Basuki	48	8	18	1	148,000.	148,000	-	-	108	5	-	-	-	-	108	5	-	
39	Bale Rejo	70	20	55	3	370,000.	370,000	-	70	181	7.	1,176,000.	1,176,000	-	70	181	7	1,225,000	
40	Sukasari	30	15	34	2	270,000.	270,000	-	30	70	3.	504,000	504,000	-	30	70	3	525,000	
	小 計	334	103	282	15	1,883,000.	1,883,000	0	285	797	31	4,788,000	3,159,000.	1,629,000	285	797	31	4,987,000	
VIII	TERBANGGI BESAR																		
41	D.Kertarahayu	53	53	106	9	954,000.	871,850	82,150	-	-	-	-	-	-		-	-		
42	Danjar Ratu	16.5	-	32	1	-	-	-	-	-	-	-	-	-		-	-		
43	Harapan Rejo	100	40	100	7.	720,000	658,000	62,000	100.	115	9.	1,613,000.	379,507.	1,233,493	100	115	9	1,750,000	
44	Endang Rejo	100	60	116	7.	1,080,000.	987,000	93,000	100.	116	7.	1,613,000.	-	1,613,000	100	116	7	1,750,000	
45	Fajar Asri	180	108.5	176	9	1,953,000.	1,953,000	-	180.	236	11.	2,907,000.	2,907,000.	-	180	236	11	3,150,000	
46	Adi Jaya	106	79	122	5	1,422,000	1,290,550	122,450	47.	80	5.	759,050.	356,674	402,376.	79	80	5	1,343,000	
47	Simpang Agung	171	100	115	7	1,800,000	1,800,000	-	171.	182	9.	2,761,650.	2,761,650	-	171	182	9	1,992,500	
48	Nambah Dadi	100	30	42	2	540,000	540,000	-	100.	131	5.	1,613,000.	753,150.	861,850.	100	131	5	1,750,000	
49	Dono Arum	150	30	49	3.	540,000	540,000	-	102.5	154	10.	1,655,375	1,655,375.	-	102.5	154	10	1,793,750	
50	Seiuauban	130	30	69	3.	540,000	540,000	-	130.	250	6	2,009,500	2,009,500.	-	130	250	6	2210,000	
	小 計	1106.5	530.5	927	53	9549,000.	9,189,400	359,600	930.5	1,264	62	14,937,575	10,822,856.	4,114,719	902.5	1264	62	16,739,250	
IX	SUKADANA																		
51	Dono Mulyo	110	30	40	2	540,000	493,500	46,500	110.	210	7	1,864,500	1,864,500.	-	110	210	7	1,925,000	
52	Sukaraja Nuban	98.5	28.5	56	3	459,000	411,250	47,750	-			-	-	-	45	172	6	765,000	
53	Bumi Jaya	70	51	134	6	918,000	918,000	-	70.	120	7	1,186,500.	1,186,500.	-	70	125	7	1,190,000	
54	Sukadana Ilir	74.50	45.75	71	3	823,500	823,500	-	37.	120	7	627,150.	627,150	-	45.25	120	7	769,250	
55	Muara Jaya	23.5	23.5	132	9	423,000	423,000	-	-			-	-	-	26.5	132	9	463,750	
56	Gedung Dalem	4.5	4.5	18	1.	81,000	81,000	-	-			-	-	-				-	
	小 計	381.00	180.25	451	24	3,244,500.	3,150,250	94,250	217.	455.	21.	3,678,150	3,678,150	0	296.75	739	36	5,113,000.	
	合 計	4,942.725	2,198.800	4,482	271	40,212,650.	38,188,478	2,024,172	4,244.00	8,112	426	68,248,197	61,241,978	7,006,219	4,510.25	8330	441	79,138,750	

備 ： *不明

出所： インドネシア側提出資料より調査団作成。

表7. 協定延長後（１９７７年１１月１４日以降）のReport, Advice 等

1. Report on S.P.M.A. student's interest for Agriculture (F. Daimaru). Feb., 1978.

2. Some recommendations on REC establishment in the Lampung Province. (F. Daimaru). May, 1978.

3. Daftar curah hujan Propinsi Dati I Lampung. Juli, 1978. ランポン州の年間，月別雨量分布図）

4. Some advice on rat control (draft). (Translated Japanese & Indonesian language) Sept., 1978.

5. How to do the multiplication of qualified seeds and their distribution. (M. Noda, Ir. Kurdani Suwito). Nov., 1978.

6. Identification of P.P.L. knowledge in Lampung Province in 1978. (Ir. Joko Umar Said, F. Daimaru). Jan., 1979.

7. Perhitungan usaha tani dan B/C ratio R.M.U. Proyek Tani Makmur Lampung Tahun 1978/1979. Jan., 1979.（タニマムールのライスミルの純益試算等1978/1979）

8. Pesemaian padi sawah dengan menggunakan kotak. Jan., 1979.（田植機用苗作り要領）

9. Report on trial in 1978/1979 (Interial report).(Japanese language). (Y. Ueda, M. Noda). March, 1979.

10. Report on soil and fertilizer. (Y. Ito). March, 1979.

11. The present situation of the brown plant-hopper in Central Lampung. (O. Kochida (LP3), Y. Ueda). April, 1979.

12. Report on the implementation of system Kunjungan within Demo Farm Tani Makmur. (F. Daimaru). May, 1979.

13. Test on varietal resistance of rice seedling to rice blast in dry season 1979. Aug., 1979.

14. Daftar harga kendaraan di Tanjung Karang dan Teluk Betung. Aug., 1979.（車輌農機具の現地市販価格調査）

15. Improvement of system LAKU in the Lampung Province. (F. Daimaru). Sept., 1979.

16. Cost estimation for hand tractor 8.5 HP with rotary and swamp wet field wheel. Sept., 1979.

17. Regulation of the farmer group. Oct., 1979.

18. Pelaksanaan supervisi kegiatan sistem kerja LAKU dari propinsi ke kabupaten, B.P.P. dan WILD. (Ir. Maramis S, Ir. Trisbani, Idham Bakri B. Sc., F. Daimaru). Oct., 1979.（ＲＥＣ及び広域町村に対する普活動のスーパービジョン）

19. Analytical results of trial soils on 1978/1979. Oct., 1979.

20. Survey on the virus diseases of soybean in dry season 1979. Nov., 1979.

21. Survey on the virus disease of peanut in dry season 1979. Nov., 1979.

22. Consideration about results of fertilizer trial 1978/1979. Nov., 1979.

23. Kapasitas peralatan mesin 2 pertanian. Nov., 1979.（農機具の能力基準表）

24. Lampung Tani Makmur Project (1972 - 1977 - 1980). Nov., 1979.

25. Cultivation methods of lowland rice, upland rice, maize, soybean, peanuts, mungbean and cassava. (Translated Japanese language). Nov , 1979.

出所：ＬＴＭプロジェクト・チーム「ランポン農業開発計画（タニマムールプロジェクト）協定延長（１９７７年１１月１４日～１９８０年１１月１３日）後の概要」（１９７８年１１月）８４頁より転載。

表8　ランポン農業開発計画に関する調査報告書等の資料一覧

(1) 基本、実施計画、巡回指導、エバリュエーション調査の報告

年　月	報　告　書　名	発行所
昭和46年12月	インドネシア・ランポン農業開発調査報告書	OTCA
〃 47年 8月	インドネシア国ランポン州農業開発実施計画	〃
〃 48年 2月	インドネシア・ランポン地区農業開発計画実施設計調査報告書	〃
〃 50年 1月	インドネシア・ランポン州農業開発計画巡回指導調査報告書	JICA
〃 50年 5月	インドネシア・ランポン農業開発計画巡回指導調査報告書	〃
〃 50年10月	昭和50年度農業土木分野に係る巡回指導調査団報告書	〃
〃 51年 5月	インドネシア・ランポン農業開発計画巡回指導調査団報告書	〃
〃 51年 7月	インドネシア・ランポン農業開発計画合同中間エバリュエーション調査報告書	〃
〃 52年 8月	インドネシア共和国ランポン農業開発計画合同エバリュエーション調査報告書	〃
〃 53年12月	インドネシア・ランポン農業開発計画巡回指導チーム報告書	〃

(2) 専門家の報告

年　月	報告者名	報　告　書　名	発行所
1972,11	大島幸次	Agricultural Statistics in Indonesia	OTCA
昭和49年 7月	岡　哲	インドネシア国ランポン州農業開発協力派遣専門家巡回報告書（畑作栽培）	〃
〃 50年 3月	野島数馬・広瀬昌平	換物作物キャッサバについて―東南アジアの畑作を考える―	JICA
〃 50年 3月	須　弘	インドネシア・ランポン農業開発プロジェクト専門家（農業普及）報告書	〃
〃 50年 6月	小坂二郎	同　上　（土壌肥料） 〃	〃
〃 50年12月	中島　昭	インドネシア・ランポン農業開発計画総合報告書（稲作普及）	〃
〃 50年12月	加藤政一	同　上　（畑作普及）	〃
〃 51年 5月	鈴木忠次	同　上　（病害虫）	〃
〃 51年 5月	服部政二	同　上　（かんがい）	〃
〃 51年 5月	広瀬昌平	同　上　（畑作栽培）	〃
〃 52年 1月	石田忠人	同　上　（農業機械）	〃
〃 52年 1月	〃	同　上　―付属資料―　（インドネシアの農機具）	〃
1972,12	〃	Report on Agricultural Mechanization in Lampung Tani Makmur	〃
昭和52年 2月	野島数馬・広瀬昌平	文献から見たキャッサバ研究の概況―キャッサバ栽培の手引書として―	〃
〃 52年 2月	同　上	（英文）	〃
〃 54年 1月	野島数馬	インドネシア・ランポン農業開発計画第1次協定期間最終報告書（1973～1977）	〃

(3) インドネシア側の報告書(Tani Makmur Project 関係)

1. Laporan Kegiatan Project Tani Makmur Lampung Tahun Anggaran 1973/74
2. " 1974/75
3. " 1975/76
4. " 1976/77
5. " 1977/78
6. " 1978/79
7. Joint Evaluation Report on Lampung Tani Makmur Project 1976
8. Final Report on Evaluation for Lampung Tani Makmur Project 1977
9. Appendix, Final Report on Evaluation for Lampung Tani Makmut Project 1977
10. Pedoman Pengelenggoraan Demo-Farm Upland 1976/77
11. " Demo-Farm Lowland 1976/77
12. Pedoman Pelaksanaan Penataran Petugas 1979/80
13. Petunjuk Pelaksanaan Latihan Penjuluh Pertanian Lapangan (PPL) di Balai Penyuluhan Pertanian Tanaman Padi Sawah 1979
14. Daerah Pembinaan dan Areal Pertanian di setiap B.P.P. Propinsi Datil Lampung 1978/79
15. Berita Tegineneng No.1 April 1979
16. Berita Tegineneng No.2 Sept. 1979
17. Report on the Variation of Farmer's sense and activity in Tani Makmur Project 1978
18. Kumpulan Bahan Pelajaran Latihan Petugas Produksi Benih October 1979

(4) ランポン州農業開発の諸計画に関する資料, 情報

1. Rencana Penbagunan Lima Tahun Ke-Tiga Subsector Pertanian Tanaman Pangan Propinsi Dati 1, Lampung 1977/78 - 1983/84
2. Sumatra Regional Planning Study, Province Lampung - Infrastructre -
3. " - Industry -
4. " - National Resources -
5. Sumatra Regional Planning Study Part-B
6. Program Peningkatan Produsi Produksi Padi, Palawiji dan Hortikulture, Tahun Anggaran 1978/79

(5) そ の 他

1. Hasil Temu Karya Kontak Tani se Propinsi Dati 1 Lampung Tgl.15 s/d 18 Nopember 1979 Di Tegineneng

出所：ＬＴＭプロジェクト・チーム「ランポン農業開発計画（タニマムールプロジェクト）協定延長（１９７７年１１月１４日～１９８０年１１月１３日）後の概要」(１９７９年１１月)８５～８９頁より転載。