

### 4.1.2. Logs of Test Pit (T-50 - T131)

Pit No.	T - 50	Location :	25 - 5 - 24 N	55 - 57 - 24 E	Date:	16-May-95	
			North Kadar				
			Alphalfa farming protected by dyke				
Classif	Depth	Description of Soil	Colour	Gravel	Gravel	Compactness	Remarks
ication	(cm)			Contents (%)	Max Dia. (mm)	(kg/cm <sup>2</sup> )	
25	15	sand w/gravel moistured	10YR 6/4	30-40	50	loose	
	60	sand w/gravel	10YR 5/4	30-40	50	loose	
	85	Fine sand w/gravel	10YR 4/4	less 1	5	loose	
	90	loose sand w/gravel*	10YR 4/3		20	loose	*CaCo <sub>3</sub> on surface

Pit No.	T - 51	Location :	25 - 05 - 3 N	55 - 56 - 15 E	Date:	16-May-95	
Classif	Depth	Description of Soil	Colour	Gravel	Gravel	Compactness	Remarks
ication	(cm)			Contents (%)	Max Dia. (mm)	(kg/cm <sup>2</sup> )	
40	40	Sand w/gravel	10YR 6/3	20	15		
	100	Loose gravel w/coarse sand	10YR 3/2		130		*CaCo <sub>3</sub> on surface

Pit No.	T - 52	Location :	25 - 3 - 27 N	55 - 55 - 22 E	Date:	16-May-95	
Classif	Depth	Description of Soil	Colour	Gravel	Gravel	Compactness	Remarks
ication	(cm)			Contents (%)	Max Dia. (mm)	(kg/cm <sup>2</sup> )	
25	25	Sand w/gravel*	10YR 6/3	10	5		
	50	Loose gravel w/coarse sand	10YR 5/3		40		
	100	Cemented gravel* w/sand	10YR 5/3		30		*CaCo <sub>3</sub> on surface

Pit No.	T - 53	Location :	25 - 04 - 43 N	55 - 53 - 29 E	Date:	16-May-95	
Classif	Depth	Description of Soil	Colour	Gravel	Gravel	Compactness	Remarks
ication	(cm)			Contents (%)	Max Dia. (mm)	(kg/cm <sup>2</sup> )	
45	45	Compacted Sand w/gravel	10YR 6/3	5	3		
	70	Gravel cemented by CaCo <sub>3</sub>	10YR 3/1		20		
	85	Gravel w/loose coarse sand	10YR 3/1		30		

Pit No.	T - 54	Location :	25 - 04 - 5 N	55 - 50 - 10 E	Date:	17-May-95	
Classif	Depth	Description of Soil	Colour	Gravel	Gravel	Compactness	Remarks
ication	(cm)			Contents (%)	Max Dia. (mm)	(kg/cm <sup>2</sup> )	
12	12	Sand w/gravel	10YR 6/4	10 - 15			
	40	Cemented sand w/gravel	7.5YR 6/6	35	30		
	70	Loose sand w/gravel			60		

Pit No.	T - 55	Location :	25 - 4 - 3 N	55 - 51 - 32 E	Date:	17-May-95	
Classif	Depth	Description of Soil	Colour	Gravel	Gravel	Compactness	Remarks
ication	(cm)			Contents (%)	Max Dia. (mm)	(kg/cm <sup>2</sup> )	
30	30	Fine sand w/gravel	10YR 6/3	15	6		
	55	Fine gravel w/salt crystal and sand	10YR 6/2		15		
	70	Cemented sand w/gravel and salt Crystal		30			
	85	Loose coarse sand w/salt Crystal			30		
100	Coarse sand w/ gravel			30			

Pit No.	T - 56	Location :	25 - 2 - 25 N	55 - 51 - 41 E	Date:	17-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	7	Fine sand w/gravel	10YR 5/3	10	8		
	15	Small gravel w/coarse sand			15		
	60	Compacted fine sand	10YR 6/3	5	10		
	85	Fine gravel w/coarse sand	10YR 6/3				*CaCO <sub>3</sub> on surface

Pit No.	T - 57	Location :	25 - 01 - 37 N	55 - 50 - 29 E	Date:	17-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	25	Silty Sand w/gravel	10YR 6/4	15-20	8	8	
	55	Cemented fine gravel w/sand	10YR 6/4		20		*CaCO <sub>3</sub> on surface
	85	Silty sand w/small gravel compacted	10YR 6/4	10 - 15	9		

Pit No.	T - 58	Location :	25 - 00 - 49 N	55 - 48 - 45 E	Date:	17-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	85	Gravel	10YR 6/4	less 1	10		

Pit No.	T - 59	Location :	25 - 00 - 15 N	55 - 49 - 17 E	Date:	17-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	18	Loose fine sand	10YR 5/3	less 3			
	90	Compacted silty sand	10YR 5/4	less 1			

Pit No.	T - 60	Location :	25 - 00 - 32 N	55 - 53 - 10 E	Date:	18-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	20	Sand w/gravel*	10YR 6/4	25	10		
	75	Coarse sand w/loose gravel*	10YR 5/3		80		
	90	Silty sand w/gravel*		40 - 50	20		*CaCO <sub>3</sub> on surface

Pit No.	T - 61	Location :	25 - 00 - 26 N	55 - 54 - 56 E	Date:	18-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	11	Fine sand w/gravel	10YR 6/3	30	8		
	100	Coarse sand w/gravel*	10YR 4/3	more 50	120		*CaCO <sub>3</sub> on surface

Pit No.	T - 62	Location :	25 - 2 - 23 N	55 - 56 - 07 E	Date:	18-May-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	15	Loose fine sand w/gravel	10YR 6/3	10	9		
	55	Loose gravel* w/coarse sand	10YR 5/1		90		
	85						*CaCO <sub>3</sub> on surface

Pit No.	T - 63	Location :	25 - 3 - 4 N	55 - 53 - 10 E	Date:	18-May-95
Classif. Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
35	Fine sand w/small gravel	10YR 5/4	30	5		
75	Gravel w/verse sand	10YR 4/2		90		*CaCo <sub>3</sub> on surface

Pit No.	T - 64	Location :	25 - 05 - 04 N	55 - 51 - 55 E	Date:	27-May-95
Classif. Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
28	Silty Sand w/small gravel	10YR 6/3	15	10	4	
55	Silty Sand w/small gravel	10YR 6/4	3	5	30	
95	Sand w/gravel cemented by lime st	10YR 6/2	40	30	20	

Pit No.	T - 65	Location :	25 - 19 - 8 N	55 - 57 - 59 E	Date:	23-May-95
Classif. Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
25	Very loose fine Sand w/gravel	10YR 5/3	25 - 30	20	1.5	
60	Loose gravel* w/medium sand	10YR 5/1		25		
90	Gravel w/coarse sand*	10YR 5/1		17		*CaCo <sub>3</sub> on surface

Pit No.	T - 66	Location :	25 - 19 - 26 N	55 - 58 - 51 E	Date:	23-May-95
Classif. Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
5	Fine sand transported fine sand pure	10YR 5/6				
60	Loose gravel and coarse sand*	10YR 6/2		60		
90	Small gravel and fine sand *	10YR 6/4		15		*CaCo <sub>3</sub> on surface

Pit No.	T - 67	Location :	25 - 18 - 50 N	55 - 55 - 50 E	Date:	23-May-95
Classif. Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
20	Fine sand w/gravel	10YR 5/4	30	22	2	
80	Gravel w/sand*	10YR 6/3		22		*CaCo <sub>3</sub> on surface
95	Gravel w/silty sand	10YR 5/3			20	

Pit No.	T - 68	Location :	25 - 18 - 3 N	55 - 58 - 15 E	Date:	23-May-95
Classif. Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
15	Fine & loose sand w/gravel	10YR 6/4	40 - 50	10		
90	Small gravel w/*	10YR 6/3		40		*CaCo <sub>3</sub> on surface

Pit No.	T - 69	Location :	25 - 5 - 20 N	55 - 50 - 55 E	Date:	27-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
15	Fine sand w/small gravel	5YR 5/6	7 - 10	8	2.5	
50	Fine sand w/little gravel	7.5YR 5/4	less 3		2.5	
60	Coarse sand w/gravel		more 40	25		
85	Fine sand w/little gravel		less 3		2.5	
95	Coarse sand w/gravel		more 40	25		
100	Fine sand w/little gravel		less 30		2.5	

Pit No.	T - 70	Location :	25 - 3 - 37 N	55 - 49 - 21 E	Date:	27-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
45	Silty sand w/small gravel*	10YR 5/4	7	20		
50	Gravel* w/sand			15		
65	Silty sand w/small gravel*	10YR 5/4	7	20		
75	Gravel* w/sand			15		
85	Silty sand w/small gravel*	10YR 5/4	7	20		
100	Gravel* w/sand			15		*CaCO <sub>3</sub> on surface

Pit No.	T - 71	Location :	25 - 2 - 59 N	55 - 50 - 38 E	Date:	27-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
10	Sand & gravel	10YR 5/3	25	5		
40	Sand & gravel	10YR 6/3	5 - 7	15		
65	Loose gravel & sand*	10YR 6/3		35		*CaCO <sub>3</sub> on surface
95	Gravel & sand cemented by CaCO <sub>3</sub>	10YR 6/3		20		

Pit No.	T - 72	Location :	25 - 22 - 41 N	55 - 50 - 48 E	Date:	28-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
55	Fine & loose sand w/gravel	10YR 6/4	3	7	6	
65	sand w/cobble		40	60		
95	sand & gravel cemented CaCO <sub>3</sub>	10YR 6/3		4	30	

Pit No.	T - 73	Location :	- - N	- - E	Date:	28-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
55						
65						
95						

Pit No.	T - 74	Location :	25 - 21 - 45 N	55 - 49 - 15 E	Date:	28-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
80	Sand w/small & little gravel	10YR 5/4	2	5 - 6	10	
85	Sand w/large gravel*					*CaCO <sub>3</sub> on surface
100	Sand w/small gravel		less 1	15		

Pit No.	T - 75	Location :	25 - 20 - 55 N *	55 - 51 - 26 E	Date:	28-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max.Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
50	Fine sand w/gravel	10YR 6/4	10	15	5	
65	Gravel w/sand*	10YR 6/4		25		
70	Fine sand w/gravel	10YR 6/4				
95	Gravel w/sand*	10YR 6/4		25		*CaCO <sub>3</sub> on surface

Pit No.	T - 76	Location :	25 - 20 - 46 N	55 - 49 - 9 E	Date:	29-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
65	Fine sand w/gravel*	10YR 6/4	7 - 15	7	1.5	
75	Sand w/gravel*		20	18		
95	Sand w/gravel*				2	*CaCo3 on surface

Pit No.	T - 77	Location :	25 - 18 - 45 N	55 - 51 - 25 E	Date:	29-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
45	Fine sand w/small gravel	10YR 6/4	15	17	5	
55	Sand w/gravel*		30	22		
65	Fine sand w/small gravel		15			
100	Loose gravel* w/sand	10YR 5/4		50		*CaCo3 on surface

Pit No.	T - 78	Location :	25 - 19 - 25 N	55 - 52 - 27 E	Date:	29-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
30	Sand w/gravel	10YR 6/4	5	12	7	
38	Sand & gravel*	7.5YR 6/4		15		*CaCo3 on surface
55	Sand w/gravel	7.5YR 6/4	10 - 15	8		
65	Sand & gravel	7.5YR 6/4		15		
95	Fine sand containy		less 1	12	15 - 20	

Pit No.	T - 79	Location :	25 - 19 - 52 N	55 - 52 - 21 E	Date:	29-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
35	Midium sand w/little gravel	10YR 6/4	2 - 3	10	1.5	
95	Fine sand w/little gravel	10YR 6/4	less 2	9	3 - 5	
105	Gravel* & sand			32		*CaCo3 on surface

Pit No.	T - 80	Location :	25 - 20 - 32 N	55 - 53 - 35 E	Date:	29-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
50	Fine sand w/gravel	10YR 6/4	10 - 15	7	20	
55	Gravel & sand*	10YR 6/4		25		*CaCo3 on surface
75	Sand	10YR 5/4	5	7		
95	Gravel	10YR 5/4		25		

Pit No.	T - 81	Location :	25 - 18 - 49 N	55 - 55 - 00 E	Date:	30-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
15	Sand w/gravel*	10YR 6/4	30 - 40	20	8	
35	Gravel* w/sand			13		
40	Fine sand & gravel*		7	10		
50	gravel* w/sand			18		
55	Fine sand					
60	Coarse sand w/gravel*			10		
65	Fine sand		5	5		
100	Gravel*	10YR 6/3		30		*CaCo3 on surface

Pit No.	T - 82	Location :	25 - 19 - 40 N	55 - 55 - 32 E	Date:	30-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
25	Fine sand w/gravel	10YR 6/3	10	30	7	
40	Gravel* & sand			40		
45	Sand w/gravel		20	20		
65	Loose gravel*			30		
90	Compacted gravel*			38		*CaCo <sub>3</sub> on surface

Pit No.	T - 83	Location :	25 - 20 - 32 N	55 - 56 - 06 E	Date:	30-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
20	Medium sand w/gravel*	10YR 5/4	10	10	7	
40	Loose gravel* w/sand			40		
50	Loose sand w/gravel*	7.5YR 5/6	5	5		
80	Loose gravel* w/sand			45		
90	Sand w/gravel*	10YR 5/6	3	6		
105	Gravel*			30		*CaCo <sub>3</sub> on surface

Pit No.	T - 84	Location :	25 - 21 - 00 N	55 - 57 - 20 E	Date:	30-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
30	Sand w/gravel	10YR 6/3	30	11		
45	Gravel & Sand cemented by CaCo <sub>3</sub>	10YR 6/3		25		
60	Gravel & Sand cemented by CaCo <sub>3</sub>	10YR 6/3		25		
75	Sand	10YR 6/3	30			
95	Gravel* cemented by CaCo <sub>3</sub>	10YR 6/3				*CaCo <sub>3</sub> on surface

Pit No.	T - 85	Location :	25 - 19 - 42 N	55 - 56 - 53 E	Date:	31-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
15	Sand w/gravel	10YR 6/4	7	5	15	
30	Gravel* w/Sand		-	15	loose	
55	Gravel* w/Sand		-	35		
80	Gravel* w/loose sand		-	30		*CaCo <sub>3</sub> on surface
95	Gravel cemented hardly	10YR 5/1		25		

Pit No.	T - 86	Location :	25 - 21 - 44 N	55 - 56 - 32 E	Date:	31-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
11	Sand w/gravel	7.5YR 6/4	15	15	8	
25	Sand w/gravel	7.5YR 6/4	25-30	18		
45	Gravel* & Sand	7.5YR 6/4	-	35	loose	
52	Sand	7.5YR 6/4	2	5	8-10	
80	Gravel containg CaCo <sub>3</sub>	7.5YR 6/4	-	40	loose	
85	Sand	7.5YR 6/4	2	8		
100	Gravel*	7.5YR 6/4	-	35	loose	*CaCo <sub>3</sub> on surface

Pit No.	T - 87	Location :	25 - 21 - 03 N	55 - 58 - 09 E	Date:	31-May-95
Classif Depth ication (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
12	Sand w/gravel	10YR 6/3	10	5	10	
25	Gravel		-	15		
55	Gravel		-	30		
65	Sand		2	6		
72	Gravel	7.5YR 5/6	-		10	
80	Sand	7.5YR 5/6				
85	Gravel	7.5YR 5/6	-		10	
95	Sand	7.5YR 5/6				

Pit No.	T - 88	Location :	25 - 21 - 30 N	55 - 59 - 5 E	Date:	31-May-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
15	Sand	10YR 5/4		5	1.4	
55	Sand	10YR 5/4	less 1		1.4	
100	Gravel	7.5YR 6/3		50		

Pit No.	T - 89	Location :	25 - 16 - 24 N	55 - 55 - 41 E	Date:	3-Jun-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
18	Silty sand w/gravel	10YR 5/3	25 - 30	15		
22						
30	Gravel			20		
40	Medium sand	10YR 5/4	1			
65	Gravel			110	loose	
90	Gravel*			35	compacted	*CaCO <sub>3</sub> on surface

Pit No.	T - 90	Location :	25 - 16 - 44 N	55 - 58 - 10 E	Date:	5-Jun-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
15	Gravel w/sand	10YR 6/4		100	little compacted	
30	Sand coarse			90	loose	
50	Gravel w/coarse sand			90	cemented by CaCO <sub>3</sub>	
70	Gravel w/coarse sand			90	loose	
95				40		

Pit No.	T - 91	Location :	25 - 16 - 45 N	55 - 59 - 07 E	Date:	5-Jun-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
19	Sand w/gravel	10YR 5/3	25	20		
35	Gravel w/coarse sand			60		
100	Gravel w/coarse sand	10YR 3/2		150	loose	

Pit No.	T - 92	Location :	25 - 17 - 24 N	55 - 58 - 58 E	Date:	5-Jun-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
12	Gravel w/sand	10YR 5/3	50		tight	
30	Gravel w/coarse sand			30	loose	
55	Gravel w/coarse sand			110	loose	
65	Gravel w/sand	10YR 5/4	30	45	compacted	
75	Gravel w/coarse sand				loose	
100	Gravel w/sand	10YR 3/4		35	compacted	

Pit No.	T - 93	Location :	25 - 16 - 52 N	55 - 56 - 22 E	Date:	4-Jun-95
Classif Depth location (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
20	Fine sand w/gravel	10YR 6/4	45	35		
50		10YR 6/4		40	loose	
100			0	110	Cemented by CaCO <sub>3</sub>	*CaCO <sub>3</sub> on surface

Pit No.	T - 94	Location :	25 - 17 - 24 N	55 - 54 - 22 E	Date:	8-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	50	Fine silty sand	10YR 6/3	5	6	12	
	65	Fine silty sand w/gravel	10YR 6/4	30	13		
	90	Fine silty sand w/gravel	10YR 6/4	7	4	20	
	105		10YR 6/4	0		7	

Pit No.	T - 95	Location :	25 - 17 - 16 N	55 - 52 - 11 E	Date:	8-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	15	Silty sand	10YR 6/3	3		4	
	80	Silty sand		3	5	0	
	100	Coarse sand w/gravel		40	22		
	105	Silty clay		1	5	50	

Pit No.	T - 96	Location :	25 - 16 - 33 N	55 - 54 - 11 E	Date:	8-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	15	Sand	10YR 6/3	15	10		
	35	Sand	10YR 6/3	1	5		
	90	Coarse sand w/gravel	10YR 6/3	50	43	very loose	
	100	Gravel* w/sand			15	cemented	*CaCo <sub>3</sub> on surface

Pit No.	T - 97	Location :	25 - 16 - 20 N	55 - 54 - 35 E	Date:	8-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	50	Silty sand w/gravel	10YR 6/4	7	5 - 10	15 - 20	
	60	Gravel	10YR 6/4	-	18	rather loose	
	75	fine sand w/gravel	10YR 6/4	5	8	15	
	95	Gravel cemented	10YR 6/4	-	15	cemented	

Pit No.	T - 98	Location :	25 - 20 - 8 N	55 - 58 - 25 E	Date:	10-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	15	Sand w/gravel	10YR 6/6	25	20	3	
	90	Gravel* cemented by CaCo <sub>3</sub>	10YR 6/3		2 - 80		*CaCo <sub>3</sub> on surface

Pit No.	T - 99	Location :	25 - 22 - 45 N	55 - 51 - 06 E	Date:	11-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	15	Fine sand w/gravel	10YR 5/4	20	22	10 - 15	
	55	Fine sand few w/gravel	10YR 5/4	less 1	4	7	
	75	Small gravel* w/sand	10YR 5/4	-	30		*CaCo <sub>3</sub> on surface
	85	Sand w/gravel	10YR 5/4	less 1	6		
	100	Gravel	10YR 5/4	-	26		

Pit No.	T - 100	Location :	25 - 11 - 33 N	55 - 54 - 58 E	Date:	12-Jun-95	
Classif ication	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>2</sup> )	Remarks
	15	Fine sand silty	10YR 5/4	no		1.7	
	45	Fine sand silty	10YR 5/4	no		4 - 5	
	95	Silty sand w/gravel*	10YR 5/4	15	12	2	*CaCo <sub>3</sub> on surface
	105	Coarse sand w/gravel	10YR 5/4	25	17		



Pit No.	T - 101	Location :	25 - 4 - 55 N	55 - 57 - 35 E	Date:	13-Jun-95	
			North Ikadar				
			Alphalfa farming protected by dyke				
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	20						
	40						
	60						
	80						

Pit No.	T - 102	Location :	25 - 00 - 11 N	55 - 55 - 26 E	Date:	14-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	18	Silty clay w/gravel	10YR 6/3		15		
	60	Rock			200		

Pit No.	T - 103	Location :	25 - 01 - 02 N	55 - 49 - 48 E	Date:		
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	15	Silt	10YR 6/4	15	5	4 - 10	
	65	Silt compacted	10YR 5/4	10	12	18 - 30	

Pit No.	T - 104	Location :	25 - 18 - 24 N	55 - 56 - 24 E	Date:	17-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	15	Silty sand w/gravel	10YR 6/4	35	15		
	18	Gravel			15		
	25	Silty sand w/gravel		40	10		
	35	Gravel w/fine sand			30		
	110	Gravel*			35		*CaCo3 on surface

Pit No.	T - 105	Location :	25 - 18 - 21 N	55 - 57 - 33 E	Date:	17-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max. Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	12	Silty sand w/gravel	10YR 6/4	20 - 25	18	5 - 10	
	40	Sand w/gravel		75	25		
	45	Fine sand	10YR 5/3		12		
	65	Gravel			70		
	100	Gravel cemented by CaCo3			32		

Pit No.	T - 106		Location :	25 - 16 - 35 N	55 - 56 - 33 E	Date:	17-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	25	Silty sand w/gravel	10YR 6/4	25	25		
	40	Coarse sand w/gravel	10YR 6/2	50			
	50	Silty sand		20	12		
	60	Coarse sand & gravel	10YR 6/4		25		
	100	Sand w/gravel*			20		*CaCo3 on surface

Pit No.	T - 107		Location :	25 - 14 - 08 N	55 - 56 - 07 E	Date:	14-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	40	Fine sand	10YR 6/4	less 1	10		
	45	Coarse sand	10YR 6/4	20	32		
	60	Fine sand w/gravel	10YR 6/4	30	20		
	90	Gravel w/coarse sand	10YR 5/1	-	140		* CaCo3 on surface

Pit No.	T - 108		Location :	25 - 15 - 08 N	55 - 55 - 53 E	Date:	17-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	12	Silty Sand w/gravel	10YR 6/3	20	16	5 - 10	
	20	Gravel w/sand		50			
	30	Fine sand		5	12		
	45	Gravel	10YR 6/4	-	17		
	75	Gravel cemented by CaCo3		-	40		*CaCo3 on surface

Pit No.	T - 109		Location :	25 - 15 - 16 N	55 - 53 - 59 E	Date:	18-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	55	Fine sand w/gravel	10YR 6/4	7	20	7	
	90	Gravel*		-	25		*CaCo3 on surface
	100	Silty sand		2	13	20	

Pit No.	T - 110		Location :	25 - 14 - 20 N	55 - 53 - 35 E	Date:	18-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	25	Silty sand w/gravel	10YR 6/4	5	7	4 - 5	
	45	Coarse sand w/gravel*		30	30 - 50	loose	*CaCo3 on surface
	55	Silty sand w/gravel				7	
	65	Coarse sand w/gravel					
	70	Silty sand w/gravel					
	75	Coarse sand w/gravel					
	85	Silty sand w/gravel					
	90	Coarse sand w/gravel					
	100	Silty fine sand	10YR 5/4	1			

Pit No.	T - 111	Location :	25 - 15 - 02 N	55 - 52 - 23 E	Date:	18-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	10	Silty sand	7.5YR 6/3	less 1	12	1.5	* CaCo3 on surface
	20					5	
	40					6	
	100						

Pit No.	T - 112	Location :	25 - 15 - 00 N	55 - 57 - 30 E	Date:	18-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	20	Silty sand w/gravel	10YR 6/3	7	10	-	
	30	Silty sand w/gravel	10YR 7/1	50	20	loose cemented by CaCo3	
	40	Silty sand		1	0.5	-	
	55	Silty sand		50	45	-	
	75	Gravel w/coarse sand	10YR 5/1	less 50	30	-	

Pit No.	T - 113	Location :	25 - 15 - 13 N	55 - 59 - 04 E	Date:	18-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	30	Gravel			100	loose	*CaCo3 on surface
	55	Gravel				loose	*CaCo3 on surface
	70	Gravel			90	loose	*CaCo3 on surface

Pit No.	T - 114	Location :	25 - 13 - 05 N	55 - 58 - 49 E	Date:	19-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	10	Silty sand w/gravel	10YR 6/4	30	25	20	* CaCo3 on surface
	20	Coarse sand w/gravel		more than 50	28	30	
	28	fine sand w/gravel	10YR 6/4	more than 50	42		
	90	Gravel	10YR 5/2		70		

Pit No.	T - 115	Location :	25 - 11 - 23 N	55 - 59 - 47 E	Date:	19-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	28	Silty Sand & gravel	10YR 6/3	15	more than 5	6	
	55	Silty sand cemented	10YR 6/3	7		20 - 30	
	65	Silty Sand w/gravel	5YR 6/6	1		10	
	65	Silty clay	5YR 6/6	1			

Pit No.	T - 116		Location :	25 - 10 - 20 N	56 - 00 - 00 E	Date:	19-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	10	Silty sand w/gravel	10YR 5/3	25	15	7 - 10	
	20	Coarse sand w/gravel			50		
	28	Silty sand w/gravel			12		
	35	Coarse sand w/gravel	10YR 5/2		30		
	80	Silty sand - Coarse sand w/gravel					* CaCo3 on surface

Pit No.	T - 117		Location :	25 - 7 - 26 N	55 - 57 - 45 E	Date:	19-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	5	Silty sand w/gravel	10YR 6/4		15		
	90	Gravel*			80		* CaCo3 on surface

Pit No.	T - 118		Location :	25 - 11 - 03 N	55 - 52 - 34 E	Date:	20-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	15	Silty sand	10YR 6/4	15	10	7 - 8	
	20	Silty sand w/gravel		30	14		
	40	Silty sand		7	4		
	45	Silty sand w/gravel		25	12		
	55	Silty sand		10	4		
	65	Silty sand w/gravel		40	25		
	75	Silty sand		10	10		
	95	Coarse sand w/gravel		40	40		

Pit No.	T - 119		Location :	25 - 10 - 53 N	55 - 56 - 35 E	Date:	20-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	10	Silt & sand	7.5YR 6/4	less 1	35		
	55	Silty sand cemented	10YR 7/2	less 1	25	100 - 200	

Pit No.	T - 120		Location :	25 - 08 - 37 N	55 - 54 - 01 E	Date:	20-Jun-95
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	25	Silty sand	10YR 6/3	less 1	7	3 - 10	
	45	Gravel w/sand*	10YR 6/4	-	28	loose	*CaCo3 on surface
	50	Gravel w/sand cemented	10YR 6/3	-	22	cemented	
	60	Coarse sand	10YR 4/3	5	12	loose	
	75	Gravel w/coarse sand cemented	10YR 6/3		12	cemented	

Pit No.	T - 121	Location :	25 - 7 - 12 N	55 - 55 - 53 E	Date:	20-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	10	Silty sand	10YR 6/3	20	8	8	
	25	Silty sand		25	20	10 - 20	
	55	Silty sand w/gravel*		50	32	loose	*CaCo3 on surface
	85	Gravel*		-	52	loose	

Pit No.	T - 122	Location :	25 - 6 - 21 N	55 - 55 - 19 E	Date:	20-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	15	Silty w/gravel	10YR 6/3	20	12	12	
	45	Silt	10YR 6/3	10	5	5 - 7	
	60	Gravel	10YR 6/3		32		
	70	Silt	10YR 6/3		35		
	95	Gravel	10YR 6/3		20		

Pit No.	T - 123	Location :	25 - 8 - 26 N	55 - 52 - 47 E	Date:	21-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	23	Silty clay w/gravel	10YR 7/3	25	15	10 - 20	
	35	Gravel*			20	hard	*CaCo3 on surface
	50	Coarse sand w/gravel		30	15		
	80	Gravel w/CaCo3 cristal		40	20	loose	
	100	Gravel	10YR 6/3			loose	

Pit No.	T - 124	Location :	25 - 07 - 05 N	55 - 53 - 20 E	Date:	21-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	20		10YR 6/4		30	20 - 30	
	30	Silty sand w/gravel			5 - 10		
	45			5			
	60	Silty sand w/gravel		50	22		
	65	Gravel w/sand		-	32		

Pit No.	T - 125	Location :	25 - 5 - 32 N	55 - 55 - 50 E	Date:	21-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	20	Silty sand	10YR 6/3	5	10	20	
	25	Silty sand w/gravel		20	15		
	35	Silty sand		11		5	
	40	Silty sand w/gravel		20			
	45	Silty sand					
	100	Gravel w/coarse sand*	10YR 1/5			30	

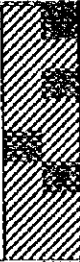
Pit No.	T - 126	Location :	25 - 4 - 40 N	55 - 59 - 45 E	Date:	21-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	25	Silt w/gravel	10YR 6/3	15	16		
	65	Silty sand w/the small gravel layer		10	15		
	100	Weathered gravel w/silt		5	36		

Pit No.	T - 127	Location :	25 - 01 - 07 N	55 - 50 - 52 E	Date:	22-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	25	Silty sand	10YR 6/3	10	20	10 - 20	
	35	Gravel w/silt		-	12	loose	
	45	Silty sand		15	3	loose	
	75			-	15	cemented by CaCo <sub>3</sub>	
	95	Silty sand compacted		1	3	25	

Pit No.	T - 128	Location :	25 - 1 - 20 N	55 - 55 - 35 E	Date:	22-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	20	Silty sand w/gravel	10YR 6/3	20	15	3	
	30	Gravel		-	15	loose	
	40	Silty sand		25	10	loose	
	50	Gravel		-	45	loose	
	75	Compated gravel	10YR 5/4	-	200		

Pit No.	T - 129	Location :	25 - 1 - 45 N	55 - 53 - 22 E	Date:	22-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	10	Silt	10YR 6/3	10	15	10	
	35	Gravel*		-	30		*CaCo <sub>3</sub> on surface
	35	Silty sand w/gravel		20	8		
	50	Gravel*		-	25	loose	*CaCo <sub>3</sub> on surface
	95	Gravel		-	42	loose	

Pit No.	T - 130	Location :	25 - 3 - 38 N	55 - 51 - 53 E	Date:	22-Jun-95	
Classifi cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	15	Silty sand	10YR 7/4	7	5	10 - 20	
	60	Silty sand compacted	10YR 6/3	2	7	20 - 30	
	75	Silty sand compacted	10YR 6/3	5	5	20 - 50	

Pit No.	T - 131	Location :	25 - 13 - 35 N	55 - 58 - 40 E	Date:	26-Jun-95	
Classifi- cation	Depth (cm)	Description of Soil	Colour	Gravel Contents (%)	Gravel Max Dia. (mm)	Compactness (kg/cm <sup>3</sup> )	Remarks
	15	Medium sand w/gravel	10YR 6/5	-	20		
	20	Coarse sand		-	5	loose	
	28	Medium sand w/gravel		10	28		
	42	Coarse sand		-	12	loose	
	50	Gravel w/coarse sand		-	62	loose	*CaCo <sub>3</sub> on surface
	65	Medium sand w/gravel		-	8	loose	
	95	Silty sand w/CaCo <sub>3</sub>	10YR 6/2	-	60		

### 4.1.3. Laboratory Chemical Analysis Results

Sample	SSLRC Sponsor	122/95/1 64-A	122/95/2 64-B	122/95/3 64-C	122/95/4 69-A	122/95/5 69-B
Moisture (105°C)	%	0.8	4.9	3.6	0.4	0.5
63µm - 2mm	%	84.46	62.79		96.02	
2µm - 63µm	%	10.98	20.22		2.27	
< 2µm	%	4.56	16.99		1.70	
pH (1:5) in water		8.0	8.3	8.2	9.1	9.0
pH (1:5) in 1M KCl		8.7	8.6	8.6	8.8	8.8
Ca <sup>2+</sup> exchangeable	mEq/100g	56.4	65.0	66.1	44.4	56.3
Mg <sup>2+</sup> exchangeable	mEq/100g	2.7	4.4	3.8	1.5	1.5
Na <sup>+</sup> exchangeable	mEq/100g	0.1	5.2	5.6	0.1	0.1
K <sup>+</sup> exchangeable	mEq/100g	0.5	0.6	0.5	0.2	0.2
C.E.C.	mEq/100g	9.8	7.7	7.1	3.2	3.1
Organic Carbon	%	<0.05	0.2	0.2	0.1	0.2
Nitrogen <sub>total</sub>	g/kg	0.1	0.1	0.1	<0.05	0.1
Phosphorus <sub>available</sub>	mg/kg	0.8	<0.05	<0.05	<0.05	<0.05
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.5	0.3	0.3	0.3	0.4
Mn <sub>EDTA extractable</sub>	mg/kg	5.0	1.4	0.9	6.8	4.8
Zn <sub>EDTA extractable</sub>	mg/kg	0.2	0.1	<0.05	0.2	0.1
Conductivity (1:5) in water	µS/cm	127.6	3860.0	3880.0	100.1	98.1
Ca <sup>2+</sup> (1:5) in water	mg/kg	77.5	1760.0	1545.0	72.5	67.5
Mg <sup>2+</sup> (1:5) in water	mg/kg	9.3	98.0	101.5	6.5	8.0
Na <sup>+</sup> (1:5) in water	mg/kg	30.5	1540.0	1605.0	12.6	13.7
K <sup>+</sup> (1:5) in water	mg/kg	49.4	188.0	172.0	15.3	16.0
Cl <sup>-</sup> (1:5) in water	mg/kg	17.4	2772.8	4228.2	15.5	7.9
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	12.9	7758.3	6753.7	23.7	12.0
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	317.3	192.2	189.2	289.9	296.0



Sample	SSLRC Sponsor		122/95/6 70-A	122/95/7 70-B	122/95/8 71-A	122/95/9 71-B	122/95/10 72-A
Moisture (105°C)		%	0.8	1.0	0.5	2.0	0.6
63µm - 2mm		%	91.84			68.18	94.20
2µm - 63µm		%	4.99			21.87	3.38
< 2µm		%	3.17			9.94	2.42
pH (1:5) in water			9.0	9.1	9.3	9.0	9.2
pH (1:5) in 1M KCl			8.8	8.9	8.7	8.7	9.0
Ca <sup>2+</sup> exchangeable	mEq/100g		48.1	53.5	44.7	61.5	57.4
Mg <sup>2+</sup> exchangeable	mEq/100g		1.6	2.1	2.7	3.2	2.9
Na <sup>+</sup> exchangeable	mEq/100g		<0.05	0.4	0.1	0.3	0.1
K <sup>+</sup> exchangeable	mEq/100g		0.2	0.3	0.3	0.3	0.4
C.E.C.	mEq/100g		7.1	6.1	6.0	13.1	4.9
Organic Carbon		%	0.2	0.2	0.2	0.3	0.2
Nitrogen <sub>total</sub>		g/kg	<0.05	<0.05	<0.05	0.1	0.1
Phosphorus <sub>available</sub>		mg/kg	<0.05	<0.05	0.3	<0.05	<0.05
Boron <sub>hot water soluble</sub>		mg/kg					
Cu <sub>EDTA extractable</sub>		mg/kg	0.3	0.3	0.5	0.2	0.3
Mn <sub>EDTA extractable</sub>		mg/kg	3.3	3.5	6.5	2.9	5.5
Zn <sub>EDTA extractable</sub>		mg/kg	0.1	0.1	0.3	0.1	0.2
Conductivity <sub>(1:5) in water</sub>		µS/cm	68.6	78.8	109.1	130.0	111.3
Ca <sup>2+</sup> (1:5) in water		mg/kg	41.5	74.5	64.0	43.0	69.5
Mg <sup>2+</sup> (1:5) in water		mg/kg	6.4	10.6	5.6	9.2	9.2
Na <sup>+</sup> (1:5) in water		mg/kg	9.1	11.0	31.0	70.5	13.8
K <sup>+</sup> (1:5) in water		mg/kg	12.5	15.9	21.9	14.8	34.7
Cl <sup>-</sup> (1:5) in water		mg/kg	6.2	7.7	12.1	41.7	11.6
SO <sub>4</sub> <sup>2-</sup> (1:5) in water		mg/kg	11.0	15.9	23.0	69.4	8.9
CO <sub>3</sub> <sup>2-</sup> (1:5) in water		mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water		mg/kg	180.0	250.2	283.7	210.5	323.4

Sample	SSLRC Sponsor	122/95/11 72-B	122/95/12 74	122/95/13 75	122/95/14 77-A	122/95/15 77-B
Moisture (105°C)	%	2.4	0.7	0.6	0.6	0.5
63µm - 2mm	%		91.12		88.80	
2µm - 63µm	%		4.54		6.42	
< 2µm	%		4.34		4.78	
pH (1:5) in water		8.9	9.0	9.2	9.3	9.2
pH (1:5) in 1M KCl		9.0	8.7	8.9	8.8	9.1
Ca <sup>2+</sup> exchangeable	mEq/100g	54.5	52.9	56.1	59.4	50.3
Mg <sup>2+</sup> exchangeable	mEq/100g	3.5	1.5	2.7	2.4	2.1
Na <sup>+</sup> exchangeable	mEq/100g	0.8	0.1	0.1	0.1	0.1
K <sup>+</sup> exchangeable	mEq/100g	0.7	0.3	0.4	0.3	0.2
C.E.C.	mEq/100g	5.7	3.4	5.4	5.8	7.5
Organic Carbon	%	0.3	0.2	0.3	0.3	0.4
Nitrogen <sub>total</sub>	g/kg	0.1	0.1	0.1	0.2	0.1
Phosphorus <sub>available</sub>	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.2	0.4	0.4	0.5	0.2
Mn <sub>EDTA extractable</sub>	mg/kg	3.0	3.9	5.4	3.9	3.0
Zn <sub>EDTA extractable</sub>	mg/kg	0.1	0.2	0.3	0.2	0.1
Conductivity <sub>(1:5) in water</sub>	µS/cm	408.0	91.7	130.8	112.4	84.6
Ca <sup>2+</sup> (1:5) in water	mg/kg	57.5	62.0	82.5	91.0	63.5
Mg <sup>2+</sup> (1:5) in water	mg/kg	27.0	5.2	9.0	11.3	9.1
Na <sup>+</sup> (1:5) in water	mg/kg	207.0	16.5	29.5	16.1	28.5
K <sup>+</sup> (1:5) in water	mg/kg	155.0	10.8	42.6	24.8	25.4
Cl <sub>(1:5) in water</sub>	mg/kg	455.9	14.1	7.6	7.9	8.1
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	296.1	18.0	13.6	15.4	7.2
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	222.7	241.0	399.7	381.4	375.3

Sample	SSLRC Sponsor	122/95/16 80-A	122/95/17 80-B	122/95/18 81-A	122/95/19 81-B	122/95/20 84-A
Moisture (105°C)	%	0.8	0.8	0.9	1.7	0.9
63µm - 2mm	%			86.53		
2µm - 63µm	%			8.57		
< 2µm	%			4.89		
pH (1:5) in water		9.1	9.1	9.3	9.5	9.3
pH (1:5) in 1M KCl		8.7	9.0	8.8	8.8	8.4
Ca <sup>2+</sup> exchangeable	mEq/100g	61.5	45.1	49.5	51.6	48.9
Mg <sup>2+</sup> exchangeable	mEq/100g	2.3	2.0	3.4	3.5	2.2
Na <sup>+</sup> exchangeable	mEq/100g	0.1	0.1	2.5	1.3	0.1
K <sup>+</sup> exchangeable	mEq/100g	0.3	0.2	1.0	0.5	0.7
C.E.C.	mEq/100g	5.8	4.8	6.2	6.3	6.1
Organic Carbon	%	0.1	0.1	0.3	0.1	0.2
Nitrogen <sub>total</sub>	g/kg	0.1	0.1	0.3	0.1	0.1
Phosphorus <sub>available</sub>	mg/kg	<0.05	0.2	22.1	2.3	<0.05
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.2	0.2	1.0	0.2	0.4
Mn <sub>EDTA extractable</sub>	mg/kg	2.4	2.5	6.5	3.2	3.7
Zn <sub>EDTA extractable</sub>	mg/kg	0.1	<0.05	2.0	0.1	0.2
Conductivity <sub>(1:5) in water</sub>	µS/cm	89.3	99.8	577.0	332.0	112.1
Ca <sup>2+</sup> (1:5) in water	mg/kg	60.5	61.5	58.0	51.5	47.0
Mg <sup>2+</sup> (1:5) in water	mg/kg	7.0	10.5	10.0	7.5	6.3
Na <sup>+</sup> (1:5) in water	mg/kg	10.7	33.5	375.0	210.0	25.5
K <sup>+</sup> (1:5) in water	mg/kg	22.2	15.4	205.5	72.0	81.0
Cl <sup>-</sup> (1:5) in water	mg/kg	4.2	169.6	422.4	9.2	146.4
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	14.6	182.5	313.0	15.8	50.9
CO <sub>3</sub> <sup>4-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	265.4	357.0	445.5	540.0	305.1

Sample	SSLRC Sponsor	122/95/21 84-B	122/95/22 85-A	122/95/23 85-B	122/95/24 86-A	122/95/25 86-B
Moisture (105°C)	%	1.9	0.5	0.8	0.5	0.8
63µm - 2mm	%		92.13			
2µm - 63µm	%		5.51			
< 2µm	%		2.36			
pH (1:5) in water		8.2	9.4	8.1	8.1	8.1
pH (1:5) in 1M KCl		8.0	8.4	8.5	8.3	8.4
Ca <sup>2+</sup> exchangeable	mEq/100g	66.5	46.7	45.1	44.7	51.9
Mg <sup>2+</sup> exchangeable	mEq/100g	1.9	1.5	1.8	1.6	1.7
Na <sup>+</sup> exchangeable	mEq/100g	0.5	0.1	0.1	<0.05	0.1
K <sup>+</sup> exchangeable	mEq/100g	0.2	0.3	0.2	0.2	0.2
C.E.C.	mEq/100g	5.5	7.2	4.7	8.1	5.8
Organic Carbon	%	0.1	0.1	0.2	0.2	0.1
Nitrogen <sub>total</sub>	g/kg	<0.05	0.1	0.1	0.2	0.1
Phosphorus <sub>available</sub>	mg/kg	<0.05	<0.05	0.8	1.0	<0.05
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.2	0.3	0.2	0.3	0.3
Mn <sub>EDTA extractable</sub>	mg/kg	1.3	7.2	5.1	5.7	3.3
Zn <sub>EDTA extractable</sub>	mg/kg	<0.05	0.1	0.1	0.2	0.1
Conductivity <sub>(1:5) in water</sub>	µS/cm	2480.0	106.2	108.5	96.4	71.6
Ca <sup>2+</sup> (1:5) in water	mg/kg	1665.0	63.0	58.5	68.0	53.0
Mg <sup>2+</sup> (1:5) in water	mg/kg	59.5	7.0	8.1	7.0	5.6
Na <sup>+</sup> (1:5) in water	mg/kg	162.0	27.0	34.0	12.4	7.6
K <sup>+</sup> (1:5) in water	mg/kg	62.5	26.2	21.5	17.4	8.8
Cl <sup>-</sup> (1:5) in water	mg/kg	12.4	18.4	7.7	5.2	9.7
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	33.2	27.1	11.4	7.2	16.2
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	189.2	271.5	265.4	262.4	225.8

Sample	SSLRC Sponsor	122/95/26 88-A	122/95/27 89-A	122/95/28 89-B	122/95/29 91-A	122/95/30 91-B
Moisture (105°C)	%	0.4	0.8	1.1	0.8	1.0
63µm - 2mm	%		88.66	88.60		
2µm - 63µm	%		7.64	7.68		
< 2µm	%		3.70	3.72		
pH (1:5) in water		7.8	9.7	9.7	7.8	8.6
pH (1:5) in 1M KCl		8.4	8.9	8.8	8.1	8.9
Ca <sup>2+</sup> exchangeable	mEq/100g	47.4	42.1	48.0	40.3	20.0
Mg <sup>2+</sup> exchangeable	mEq/100g	1.5	2.5	2.7	4.2	3.2
Na <sup>+</sup> exchangeable	mEq/100g	0.1	2.0	2.3	0.3	0.2
K <sup>+</sup> exchangeable	mEq/100g	0.4	0.4	0.3	0.1	<0.05
C.E.C.	mEq/100g	5.0	4.0	9.2	7.8	2.2
Organic Carbon	%	0.2	1.0	0.2	0.9	0.8
Nitrogen <sub>total</sub>	g/kg	0.1	0.1	0.1	0.7	0.1
Phosphorus <sub>available</sub>	mg/kg	1.1	4.7	2.1	7.0	1.6
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.2	0.3	0.2	1.1	0.6
Mn <sub>EDTA extractable</sub>	mg/kg	5.9	9.0	3.4	18.1	26.8
Zn <sub>EDTA extractable</sub>	mg/kg	0.1	0.4	0.1	1.3	0.1
Conductivity (1:5) in water	µS/cm	157.9	350.0	368.0	145.3	110.2
Ca <sup>2+</sup> (1:5) in water	mg/kg	101.0	38.0	40.5	67.0	38.5
Mg <sup>2+</sup> (1:5) in water	mg/kg	9.9	65.5	9.7	9.6	15.0
Na <sup>+</sup> (1:5) in water	mg/kg	35.0	265.0	280.0	69.5	49.5
K <sup>+</sup> (1:5) in water	mg/kg	58.4	76.5	27.0	12.4	7.4
Cl <sup>-</sup> (1:5) in water	mg/kg	30.1	38.6	18.4	34.3	8.7
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	53.3	64.6	21.3	29.5	26.1
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	36.0	54.0	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	442.4	1125.8	1028.2	466.8	265.4

Sample	SSLRC Sponsor	122/95/31 94-A	122/95/32 94-B	122/95/33 95-A	122/95/34 96-A	122/95/35 96-B
Moisture (105°C)	%	0.7	3.6	0.7	1.3	1.4
63µm - 2mm	%	86.91		90.85	82.65	
2µm - 63µm	%	8.99		6.49	12.90	
< 2µm	%	4.10		2.66	4.45	
pH (1:5) in water		8.2	8.4	8.3	8.8	8.4
pH (1:5) in 1M KCl		8.5	8.5	8.4	8.5	8.6
Ca <sup>2+</sup> exchangeable	mEq/100g	48.4	61.9	47.8	66.6	52.2
Mg <sup>2+</sup> exchangeable	mEq/100g	3.8	4.3	3.9	6.3	4.3
Na <sup>+</sup> exchangeable	mEq/100g	0.1	1.5	0.1	1.2	1.0
K <sup>+</sup> exchangeable	mEq/100g	0.5	0.5	0.4	<0.05	<0.05
C.E.C.	mEq/100g	4.1	2.4	5.8	7.1	6.9
Organic Carbon	%	0.1	0.1	0.1	0.2	0.1
Nitrogen <sub>total</sub>	g/kg	0.2	0.1	0.1	0.2	<0.05
Phosphorus <sub>available</sub>	mg/kg	6.3	0.5	2.5	12.3	4.5
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.2	0.1	0.4	0.3	0.1
Mn <sub>EDTA extractable</sub>	mg/kg	4.5	1.9	7.4	2.5	3.2
Zn <sub>EDTA extractable</sub>	mg/kg	0.1	<0.05	0.1	0.2	0.1
Conductivity(1:5) in water	µS/cm	125.2	567.0	127.7	216.0	245.0
Ca <sup>2+</sup> (1:5) in water	mg/kg	53.0	69.0	65.5	34.0	89.0
Mg <sup>2+</sup> (1:5) in water	mg/kg	11.5	48.5	11.5	13.0	38.0
Na <sup>+</sup> (1:5) in water	mg/kg	40.0	330.0	39.5	190.5	204.0
K <sup>+</sup> (1:5) in water	mg/kg	57.0	83.0	37.9	1.5	10.9
Cl <sup>-</sup> (1:5) in water	mg/kg	729.5	12.3	3.5	120.5	217.4
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	1685.7	21.0	<0.05	51.62	62.0
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	326.5	210.5	366.1	472.9	369.2

Sample	SSLRC Sponsor	122/95/36 97	122/95/37 98-A	122/95/38 98-B	122/95/39 100-A	122/95/40 102-A
Moisture (105°C)	%	0.5	0.2	0.8	0.4	0.6
63µm - 2mm	%		97.02		94.40	86.92
2µm - 63µm	%		1.76		3.83	8.33
< 2µm	%		1.22		1.77	4.76
pH (1:5) in water		8.1	8.3	8.3	8.4	8.0
pH (1:5) in 1M KCl		8.4	8.3	8.5	8.2	8.2
Ca <sup>2+</sup> exchangeable	mEq/100g	57.8	59.1	53.2	53.0	62.9
Mg <sup>2+</sup> exchangeable	mEq/100g	5.7	2.1	5.0	2.1	6.8
Na <sup>+</sup> exchangeable	mEq/100g	0.2	0.1	0.2	0.6	1.4
K <sup>+</sup> exchangeable	mEq/100g	0.2	0.2	0.1	0.3	0.2
C.E.C.	mEq/100g	9.9	2.1	3.7	7.6	4.7
Organic Carbon	%	0.5	0.2	0.1	0.6	1.0
Nitrogen <sub>total</sub>	g/kg	0.4	0.1	<0.05	<0.05	0.1
Phosphorus <sub>available</sub>	mg/kg	17.6	<0.05	<0.05	25.6	10.2
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	3.1	0.5	0.2	3.0	0.2
Mn <sub>EDTA extractable</sub>	mg/kg	6.6	6.2	14.6	8.1	13.6
Zn <sub>EDTA extractable</sub>	mg/kg	2.9	0.3	0.1	3.1	0.9
Conductivity (1:5) in water	µS/cm	105.2	108.1	171.5	187.4	693.0
Ca <sup>2+</sup> (1:5) in water	mg/kg	32.5	59.0	51.0	30.5	101.5
Mg <sup>2+</sup> (1:5) in water	mg/kg	9.3	9.0	24.0	11.0	78.5
Na <sup>+</sup> (1:5) in water	mg/kg	44.0	27.0	50.0	139.5	330.0
K <sup>+</sup> (1:5) in water	mg/kg	20.8	23.9	19.0	24.9	26.9
Cl <sup>-</sup> (1:5) in water	mg/kg	4.9	15.0	198.5	97.2	328.3
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	8.1	26.6	143.6	38.3	368.1
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	314.3	247.1	186.1	399.7	259.3

Sample	SSLRC Sponsor	122/95/41 103-A	122/95/42 103-B	122/95/43 105-A	122/95/44 105-B	122/95/45 107-A
Moisture (105°C)	%	1.1	1.4	0.3	0.6	0.4
63µm - 2mm	%	80.97	74.78	88.04		91.35
2µm - 63µm	%	11.09	11.60	8.51		6.63
< 2µm	%	7.94	13.62	3.44		2.02
pH (1:5) in water		8.1	8.2	8.7	8.3	8.4
pH (1:5) in 1M KCl		8.0	8.2	8.5	8.3	8.0
Ca <sup>2+</sup> exchangeable	mEq/100g	59.6	67.7	62.9	68.9	55.5
Mg <sup>2+</sup> exchangeable	mEq/100g	8.0	6.0	3.7	3.8	2.9
Na <sup>+</sup> exchangeable	mEq/100g	2.8	2.4	0.1	0.1	1.0
K <sup>+</sup> exchangeable	mEq/100g	0.4	0.5	0.1	0.2	0.1
C.E.C.	mEq/100g	7.6	8.9	4.3	8.9	6.4
Organic Carbon	%	<0.05	0.1	0.2	<0.05	0.5
Nitrogen <sub>total</sub>	g/kg	0.3	0.2	0.2	0.1	0.3
Phosphorus <sub>available</sub>	mg/kg	6.5	2.5	0.5	<0.05	5.6
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.4	0.3	0.3	0.3	1.1
Mn <sub>EDTA extractable</sub>	mg/kg	8.1	4.6	13.0	2.7	9.2
Zn <sub>EDTA extractable</sub>	mg/kg	0.3	0.1	0.1	0.1	0.9
Conductivity (1:5) in water	µS/cm	4420.0	2970.0	95.3	90.7	244.0
Ca <sup>2+</sup> (1:5) in water	mg/kg	760.0	155.0	72.5	48.5	26.5
Mg <sup>2+</sup> (1:5) in water	mg/kg	82.5	93.0	10.5	8.5	11.7
Na <sup>+</sup> (1:5) in water	mg/kg	3280.0	2410.0	12.9	23.5	221.5
K <sup>+</sup> (1:5) in water	mg/kg	108.5	120.0	16.7	18.9	8.7
Cl <sup>-</sup> (1:5) in water	mg/kg	5051.1	3918.0	8.1	9.2	113.0
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	2676.4	1876.8	26.2	16.8	58.2
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	241.0	192.2	335.6	277.6	472.9



Sample	SSLRC Sponsor		122/95/46 109	122/95/47 111	122/95/48 115-A	122/95/49 115-C	122/95/50 116
Moisture (105°C)	%		0.4	0.2	1.1	9.0	0.9
63µm - 2mm	%		93.90	97.08			
2µm - 63µm	%		4.30	2.19			
< 2µm	%		1.80	0.73			
pH (1:5) in water			8.5	8.6	7.8	7.3	8.4
pH (1:5) in 1M KCl			8.7	8.7	8.1	7.8	8.4
Ca <sup>2+</sup> exchangeable	mEq/100g		56.5	59.4	76.3	209.8	55.3
Mg <sup>2+</sup> exchangeable	mEq/100g		3.6	2.7	6.4	1.0	4.8
Na <sup>+</sup> exchangeable	mEq/100g		0.9	0.3	4.2	0.9	1.1
K <sup>+</sup> exchangeable	mEq/100g		0.1	0.1	0.6	0.2	0.3
C.E.C.	mEq/100g		4.5	6.5	7.4	4.8	7.8
Organic Carbon	%		<0.05	0.1	1.3	0.1	0.4
Nitrogen <sub>total</sub>	g/kg		0.2	0.2	1.3	0.1	0.4
Phosphorus <sub>available</sub>	mg/kg		1.0	1.2	111.8	3.6	46.9
Boron <sub>hot water soluble</sub>	mg/kg						
Cu <sub>EDTA extractable</sub>	mg/kg		0.5	0.3	1.1	0.2	1.4
Mn <sub>EDTA extractable</sub>	mg/kg		7.5	6.4	14.7	2.5	6.8
Zn <sub>EDTA extractable</sub>	mg/kg		0.3	0.2	1.5	0.1	0.9
Conductivity (1:5) in water	µS/cm		119.5	120.1	1751.0	2620.0	302.0
Ca <sup>2+</sup> (1:5) in water	mg/kg		29.0	37.0	560.0	1680.0	70.5
Mg <sup>2+</sup> (1:5) in water	mg/kg		13.0	13.5	101.5	29.0	11.0
Na <sup>+</sup> (1:5) in water	mg/kg		82.5	82.0	1045.0	218.0	189.5
K <sup>+</sup> (1:5) in water	mg/kg		7.7	8.5	100.0	35.6	22.0
Cl <sup>-</sup> (1:5) in water	mg/kg		15.6	14.3	2845.5	280.6	177.2
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg		17.2	13.7	1201.1	8358.9	168.5
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg		399.7	405.8	326.5	149.5	387.5

Sample	SSLRC Sponsor	122/95/51 118-A	122/95/52 118-B	122/95/53 119	122/95/54 122	122/95/55 123-A
Moisture (105°C)	%	0.1	0.4	0.7	0.8	0.6
63µm - 2mm	%	88.21			81.04	79.90
2µm - 63µm	%	7.69			14.25	13.80
< 2µm	%	4.10			4.71	6.30
pH (1:5) in water		8.4	8.4	7.9	7.9	8.0
pH (1:5) in 1M KCl		8.4	8.5	8.6	8.5	8.3
Ca <sup>2+</sup> exchangeable	mEq/100g	55.6	62.7	77.0	71.6	69.9
Mg <sup>2+</sup> exchangeable	mEq/100g	2.8	3.0	1.9	3.5	2.7
Na <sup>+</sup> exchangeable	mEq/100g	<0.05	<0.05	1.0	1.3	0.1
K <sup>+</sup> exchangeable	mEq/100g	0.3	0.3	0.4	0.7	0.3
C.E.C.	mEq/100g	5.0	8.1	6.8	7.6	4.6
Organic Carbon	%	0.1	0.3	0.1	0.2	0.2
Nitrogen <sub>total</sub>	g/kg	0.2	0.3	0.2	0.1	0.3
Phosphorus <sub>available</sub>	mg/kg	2.8	0.5	1.2	1.3	3.5
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	<0.05	0.3	0.3	0.1	0.2
Mn <sub>EDTA extractable</sub>	mg/kg	5.8	4.0	4.7	2.1	3.7
Zn <sub>EDTA extractable</sub>	mg/kg	0.2	0.1	0.1	0.1	0.2
Conductivity (1:5) in water	µS/cm	117.0	105.8	679.0	659.0	711.0
Ca <sup>2+</sup> (1:5) in water	mg/kg	89.5	67.3	184.0	175.5	490.0
Mg <sup>2+</sup> (1:5) in water	mg/kg	11.2	11.1	29.5	33.5	8.7
Na <sup>+</sup> (1:5) in water	mg/kg	18.2	23.5	285.0	285.0	33.5
K <sup>+</sup> (1:5) in water	mg/kg	26.0	32.3	93.0	177.0	61.0
Cl <sup>-</sup> (1:5) in water	mg/kg	9.1	6.9	730.5	503.0	8.2
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	15.3	13.2	343.8	769.0	1661.9
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	384.4	360.0	137.3	250.2	238.0

Sample	SSLRC Sponsor	122/95/56 123-B	122/95/57 123-C	122/95/58 125-A	122/95/59 126-A	122/95/60 126-B
Moisture (105°C)	%	1.5	5.3	0.8	0.4	2.6
63µm - 2mm	%			91.77		
2µm - 63µm	%			5.88		
< 2µm	%			2.34		
pH (1:5) in water		7.8	7.6	8.5	7.9	8.2
pH (1:5) in 1M KCl		8.0	7.8	8.6	8.3	8.6
Ca <sup>2+</sup> exchangeable	mEq/100g	83.7	160.1	61.7	78.6	81.3
Mg <sup>2+</sup> exchangeable	mEq/100g	3.4	3.0	3.2	3.0	3.5
Na <sup>+</sup> exchangeable	mEq/100g	0.1	0.3	1.3	0.3	0.3
K <sup>+</sup> exchangeable	mEq/100g	0.3	0.2	2.1	0.5	0.5
C.E.C.	mEq/100g	6.0	8.7	3.2	5.1	3.7
Organic Carbon	%	<0.05	0.1	0.1	<0.05	<0.05
Nitrogen <sub>total</sub>	g/kg	0.2	0.1	0.2	0.1	0.1
Phosphorus <sub>available</sub>	mg/kg	1.2	1.2	6.3	4.4	0.3
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.1	0.3	0.2	0.2	0.1
Mn <sub>EDTA extractable</sub>	mg/kg	2.0	13.2	6.3	3.5	1.7
Zn <sub>EDTA extractable</sub>	mg/kg	0.1	0.1	0.2	0.1	<0.05
Conductivity <sub>(1:5) in water</sub>	µS/cm	2430.0	2500.0	589.0	374.0	527.0
Ca <sup>2+</sup> (1:5) in water	mg/kg	1640.0	1635.0	87.5	137.5	87.5
Mg <sup>2+</sup> (1:5) in water	mg/kg	58.5	76.5	10.0	9.0	31.5
Na <sup>+</sup> (1:5) in water	mg/kg	41.5	90.5	250.0	91.5	245.0
K <sup>+</sup> (1:5) in water	mg/kg	75.5	60.0	368.0	91.5	174.5
Cl <sup>-</sup> (1:5) in water	mg/kg	36.3	148.7	492.6	173.7	521.6
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	7784.4	7523.1	123.9	414.3	306.2
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	198.3	195.3	387.5	302.1	167.8

Sample	SSLRC Sponsor	122/95/61 127-A	122/95/62 127-B	122/95/63 128	122/95/64 130-A	122/95/65 130-B
Moisture (105°C)	%	0.3	2.4	0.3	0.2	2.0
63µm - 2mm	%	78.39			92.83	
2µm - 63µm	%	16.51			4.49	
< 2µm	%	5.10			2.68	
pH (1:5) in water		8.2	7.9	8.5	8.3	8.2
pH (1:5) in 1M KCl		8.5	8.5	8.5	8.5	8.4
Ca <sup>2+</sup> exchangeable	mEq/100g	73.8	64.0	59.2	60.8	70.7
Mg <sup>2+</sup> exchangeable	mEq/100g	3.1	5.4	2.4	2.6	4.3
Na <sup>+</sup> exchangeable	mEq/100g	1.0	4.7	0.1	<0.05	0.4
K <sup>+</sup> exchangeable	mEq/100g	0.8	0.5	0.2	0.2	0.4
C.E.C.	mEq/100g	7.4	9.8	5.3	6.3	4.2
Organic Carbon	%	0.4	0.5	0.2	0.3	0.4
Nitrogen <sub>total</sub>	g/kg	<0.05	0.1	0.2	0.1	0.1
Phosphorus <sub>available</sub>	mg/kg	1.3	1.0	2.6	2.5	4.0
Boron <sub>hot water soluble</sub>	mg/kg					
Cu <sub>EDTA extractable</sub>	mg/kg	0.2	0.1	0.4	0.3	0.3
Mn <sub>EDTA extractable</sub>	mg/kg	3.3	2.4	6.7	4.7	3.0
Zn <sub>EDTA extractable</sub>	mg/kg	0.1	<0.05	0.2	0.1	0.1
Conductivity <sub>(1:5) in water</sub>	µS/cm	172.8	2720.0	117.0	88.1	214.0
Ca <sup>2+</sup> (1:5) in water	mg/kg	59.5	1005.0	82.0	85.5	138.0
Mg <sup>2+</sup> (1:5) in water	mg/kg	8.7	111.5	6.0	7.5	15.0
Na <sup>+</sup> (1:5) in water	mg/kg	74.5	1305.0	29.5	13.4	97.0
K <sup>+</sup> (1:5) in water	mg/kg	60.5	155.0	22.6	29.4	60.5
Cl <sup>-</sup> (1:5) in water	mg/kg	137.4	1723.5	38.1	5.3	<0.05
SO <sub>4</sub> <sup>2-</sup> (1:5) in water	mg/kg	38.5	4107.3	156.0	13.1	<0.05
CO <sub>3</sub> <sup>2-</sup> (1:5) in water	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
HCO <sub>3</sub> <sup>-</sup> (1:5) in water	mg/kg	210.5	146.5	363.1	350.9	427.1

Particle size distribution is reported on a peroxidised, oven-dry basis.

Moisture content, soil pH, conductivity and water soluble cations and anions are based on air-dry soil.

Exchangeable cations, cation exchange capacity, organic carbon, total nitrogen, total phosphorus, hot water soluble boron and EDTA extractable metals are reported on an oven-dry basis.

## 4.2. Basic Intake Rate Tests

### 4.2.1. Pictures



Record Intake Rate

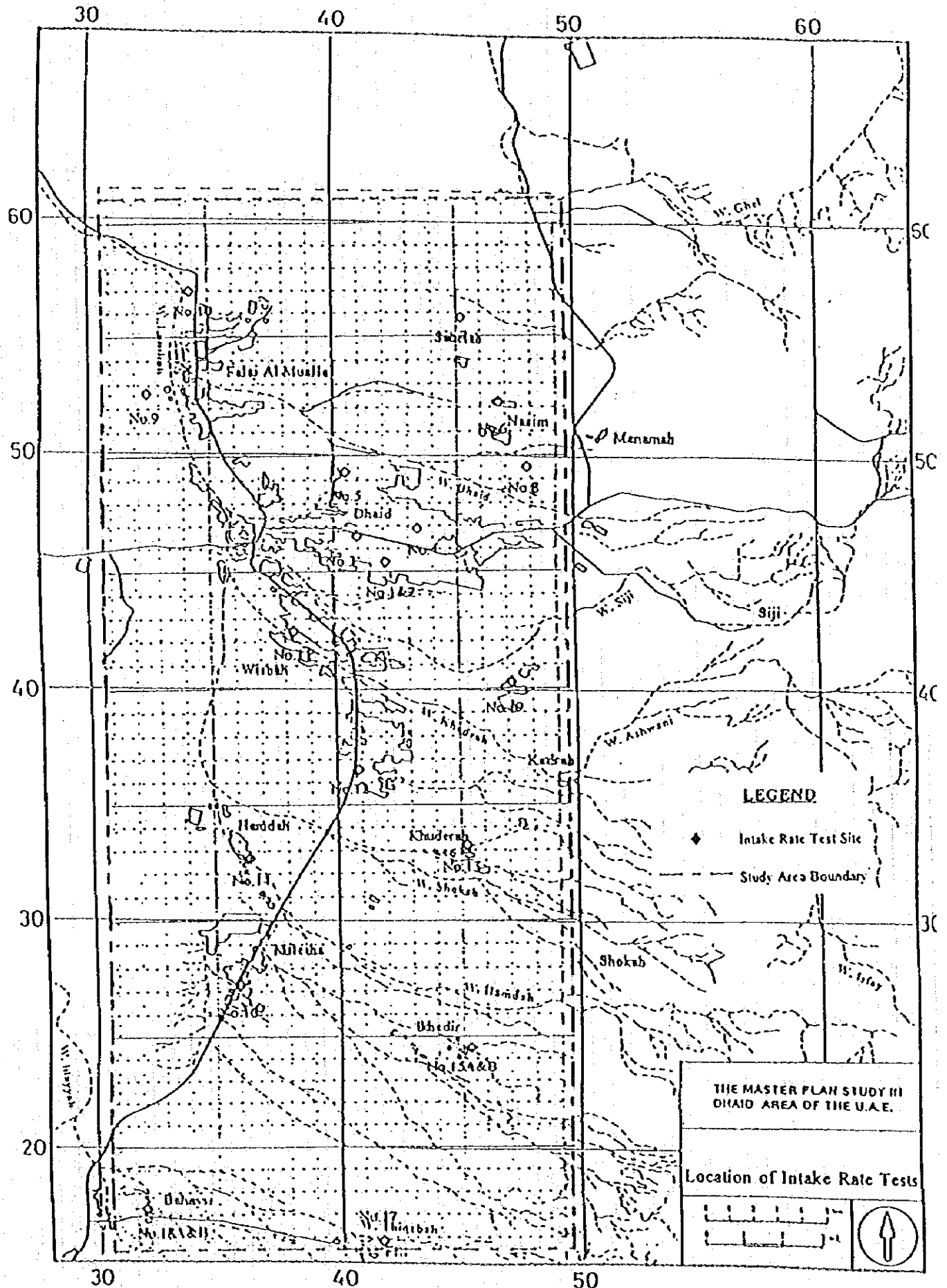


Intake Rate Test Completed in  
49 C. degrees.



Measuring Soil Log by  
Test Pit Survey

4.2.2. Location of Test Pits

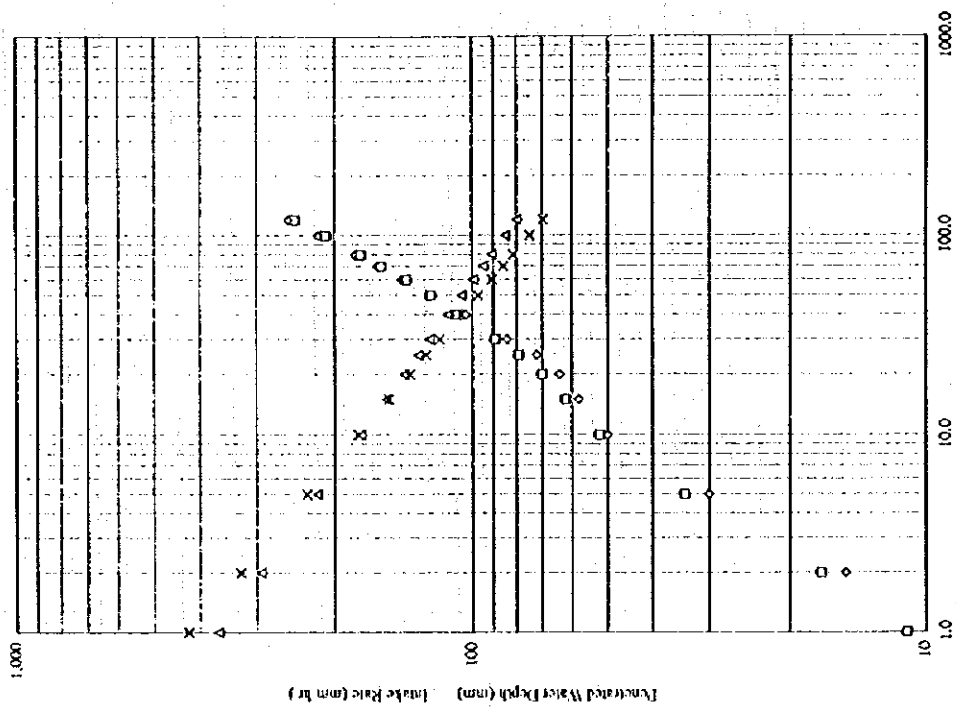


### 4.2.3. Intake Rate Test Results

Sr. No.	Test No.	Date	Location	Longitude	Latitude	Land Use	Type of Soil	Basic Intake Rate (mm/hr)	Time (minutes)	Remarks
1	1	3-Jun	MAF Dhaid Research Station-1	25 16 24	55 55 41	Pasture	S/S on Gravel	61.8	208.2	Irrigated by sprinkler
2	2	3-Jun	MAF Dhaid Research Station-2	25 16 24	55 55 41	Date Palm	S/S on Gravel	34.3	261.8	
3	3	4-Jun	MAF Dhaid old Expt. Center	25 17 1	55 55 0	abandoned farm	S/S on Gravel	19.9	316.2	
4	4	4-Jun	Date Farm in east of Dhaid-1	25 17 12	55 56 27	Date Palm Farm	S/S on Gravel	4.4	346.6	hard impervious gravelly pan by compacting at -30 cm
5	5	4-Jun	Farm on the east of sand dune of Dhaid North	25 18 33	55 54 44	near pasture	Silt Sand	74.9	232.6	horizontal penetration (IP)=60cm VP=75cm
6	6	10-Jun	Citrus farm in An Nasim	25 20 8	55 58 25	citrus field	Sd. on Gravel	11.2	380.5	IP=45 cm, VP=65 cm
7	7	10-Jun	Abandoned center pivot in Subelah	25 22 5	55 57 31	abandoned farm	Gravelly sand	41.3	298.4	very hard to drive casing, IP=50 cm, VP=60cm
8	8	10-Jun	Bottom of the flood control dam	25 18 38	55 59 5	excavated	gravel	37.4	308.2	
9	9	11-Jun	Beside Farm of Sk. Sayid near T-18	25 20 22	55 50 3	open area	Sand	60.8	253.7	IP=75 cm, VP=70 cm
10	10	11-Jun	Farm in Ar Rasheyyah right bank of Wadi Lamaha	25 22 45	55 51 6	Date palm field	Sd. on Gravel	112.5	200.0	Sand layer thickness=55 cm, IP=60, VP=50 cm
11	11	11-Jun	Abandoned farm in Wishah near CRT	25 14 47	55 53 29	abandoned farm	Sd. on Gravel	54.6	245.8	gravelly and layer thickness=58 cm, IP=45, VP=58 cm
12	12	12-Jun	Farm in Wishah near CRT diversion	25 11 33	55 54 58	fodder farm	Silt Sand	85.7	234.0	Initially moist level at -20 cm
13	13	12-Jun	Farm in Khudrah having open wells	25 9 43	55 57 32	date & fodder	Sd. on Gravel	40.2	279.5	Sand layer thickness=55 cm, IP=60, original WI.=30 cm
14	14	12-Jun	Farm in Jamaah, on the sand dune	25 9 25	55 52 21	date & fodder	Sand	46.2	275.8	IP=50 cm, VP=55 cm
15	15-A	13-Jun	Farm in Ikhedir - 20 cm top soil	25 4 55	55 57 35	pasture	S-sand on coal	211.5	161.9	Silt sand (top soil)=20cm on coarse sand/gravel layer
16	15-B	13-Jun	Farm in Ikhedir - 60 cm top soil	25 4 55	55 57 35	pasture	S-sand on coal	64.7	253.5	Silt sand (top soil)=60cm on coarse sand/gravel layer
17	16	13-Jun	Farm in southern Meflehab	25 6 28	55 52 4	pasture	Silt Sand	48.3	256.1	compacted silt sand by Car. 903, IP=45cm, VP=65 cm
18	17	14-Jun	Farm in Hill, along the wadi	25 1 0	55 49 48	vegetable	Silt with gravel	13.3	304.5	on the outcrop of rock weathered & clayed
19	18-A	14-Jun	Farm eastern edge of Bahayis	25 1 0	55 49 48	pasture	Silt on hard pe	5.3	401.9	top soil thickness = 20 cm
20	18-B	14-Jun	Farm eastern edge of Bahayis	25 1 0	55 49 48	pasture	Silt on hard pe	20.8	302.8	top soil thickness = 15 cm
21	19	26-Jun	Farm in Meflehab, near Kaurah	25 13 35	55 58 40	vegetable	Sand on gravel	118.1	215.3	top soil thickness = 15 cm, IP=90cm, VP=90cm



### 4.2.4. Data and Analysis of Basic Intake Rates



Time (min)

□ Water Depth Penetrated (mm)-1    △ Water Depth Penetrated (mm)-2    Δ Inlet Rate-1 (mm/hr)    X Inlet Rate-2 (mm/hr)

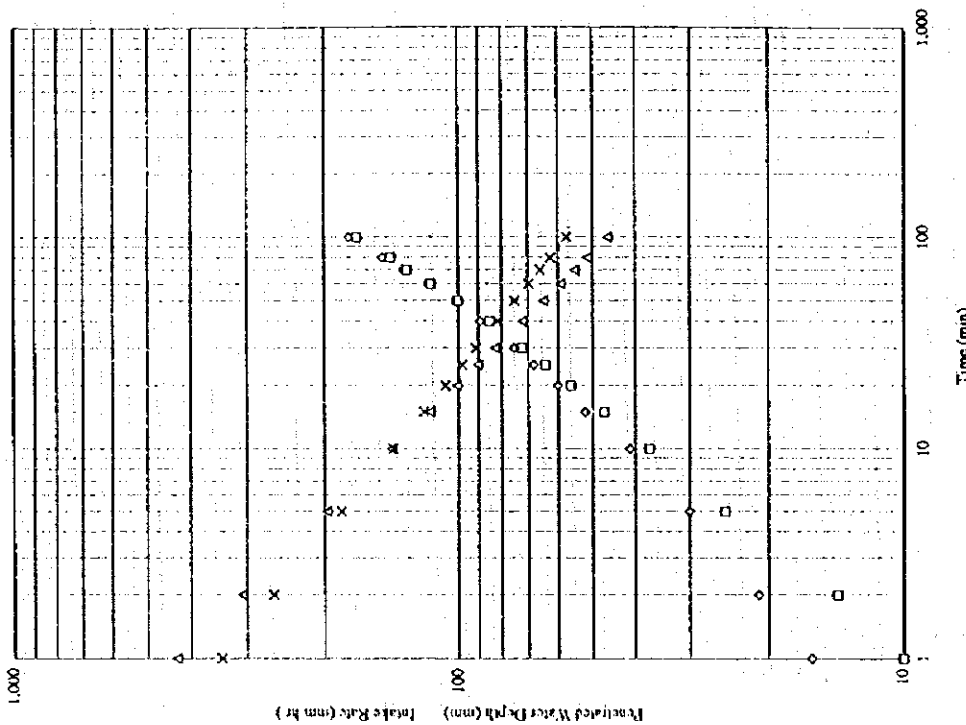
Intake Rate Test No. 1

Intake Rate Test No. 1

Location		Date: June 3, 1995		Climate: fine		Soil: Silty Sand	
MAF Dhad RC		25-16-24 N		55-55-11 E		Dry	
Profile No. 1-80		Texture of Soil		Initial Conditions		Remarks	
Land Use		near to Pasture					
Time (min)	Water Depth Penetrated (mm)	Cylinder 1		Cylinder 2		Penetration Speed (mm/hr)	Remarks
		Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)	Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)		
0	100.0		95.0				
1	72.0		84.0		11.0	640.0	8.89
2	85.0	8.0	480.0		17.0	340.0	14.27
3	70.0	15.0	450.0		31.0	340.0	26.67
10	50.0	30.0	300.0		52.0	216.0	42.90
15	42.0	50.0	240.0		62.0	120.0	56.47
20	34.0	80.0	96.0		70.0	96.0	64.68
25	36.0	64.0	72.0		79.0	108.0	79.98
30	44.0	72.0	96.0		89.0	120.0	90.57
40	55.0	84.0	144.0		107.0	108.0	110.22
50	56.0	103.0	114.0		123.0	96.0	128.35
60	80.0	122.0	114.0		139.0	96.0	145.35
70	61.0	142.0	120.0		158.0	114.0	161.47
80	42.0	161.0	114.0		175.0	102.0	176.88
100	50.0	180.0	114.0		209.0	102.0	205.97
120	64.0	217.0	111.0		245.0	108.0	233.26
Basic Intake Rate		68.7 mm/hr (190.6 min.)		54.9 mm/hr (225.8 min.)			
Average		61.8 mm/hr		(206.2 min.)			

Intake Rate Test No. 2

Location		Date: June 3, 1995		Climate: Fine		Soil: Sand	
MAE Dhah RIC		25-16-24 N		55-55-41 E		Silt/Sand	
Profile No.	Latitude of Site	Longitude of Site	Initial Conditions	Initial Conditions	Initial Conditions	Initial Conditions	Initial Conditions
Land Use	Date Palm Field						
Time (min.)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)	Penetration Speed (mm/hr)	Water Depth Penetrated (mm)	Penetration Speed (mm/hr)	Remarks
0	150.0	150.0			150.0		
1	140.0	140.0	16.0	960.0	10.0	600.0	
2	129.0	126.0	21.0	900.0	14.0	240.0	
3	120.0	125.0	30.0	180.0	25.0	220.0	
4	107.0	113.0	41.0	132.0	37.0	144.0	
5	96.0	103.0	52.0	132.0	47.0	120.0	
20	90.0	94.0	60.0	96.0	56.0	108.0	
25	85.0	86.0	68.0	96.0	64.0	96.0	
30	75.0	78.0	75.0	84.0	72.0	96.0	
40	61.0	65.0	89.0	84.0	85.0	78.0	
50	49.0	53.0	100.0	66.0	100.0	60.0	
60	42.0	46.0	116.0	66.0	115.0	60.0	
70	37.0	41.0	132.0	66.0	130.0	60.0	
80	32.0	36.0	147.0	60.0	141.0	66.0	
100	24.0	28.0	175.0	64.0	168.0	81.0	
120							
Basic Intake Rate	27.5 mm/hr (270.8 min.)		Average		34.3 mm/hr (261.8 min.)		

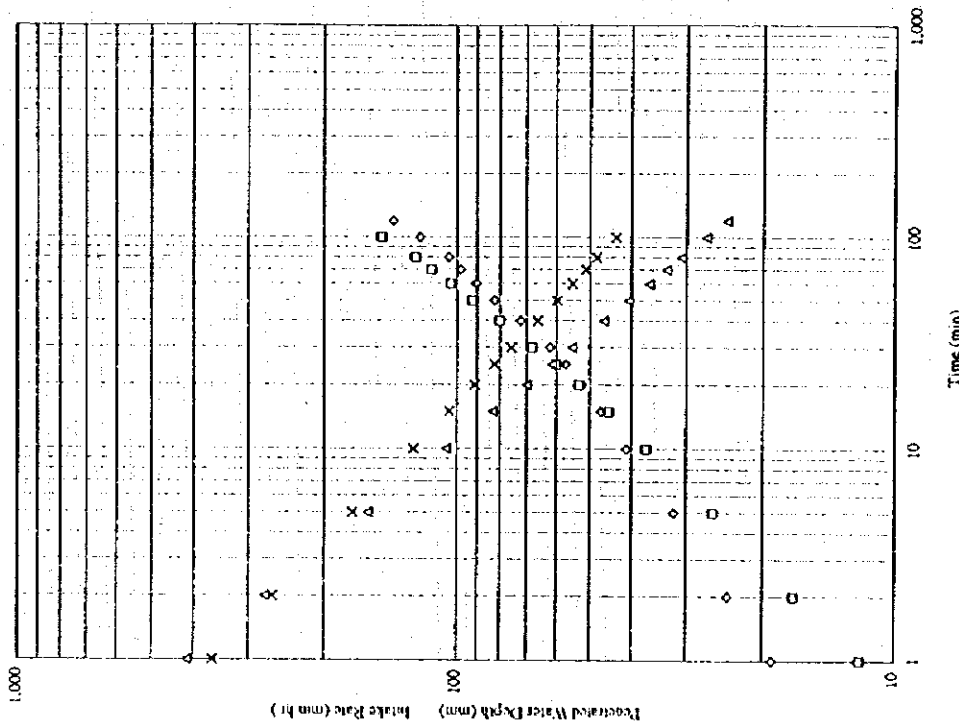


□ Water Depth Penetrated (mm) 1    □ Water Depth Penetrated (mm) 2    Δ Intake Rate-1 (mm/hr)    X Intake Rate-2 (mm/hr)

Intake Rate Test No. 2

**Intake Rate Test No. 3**

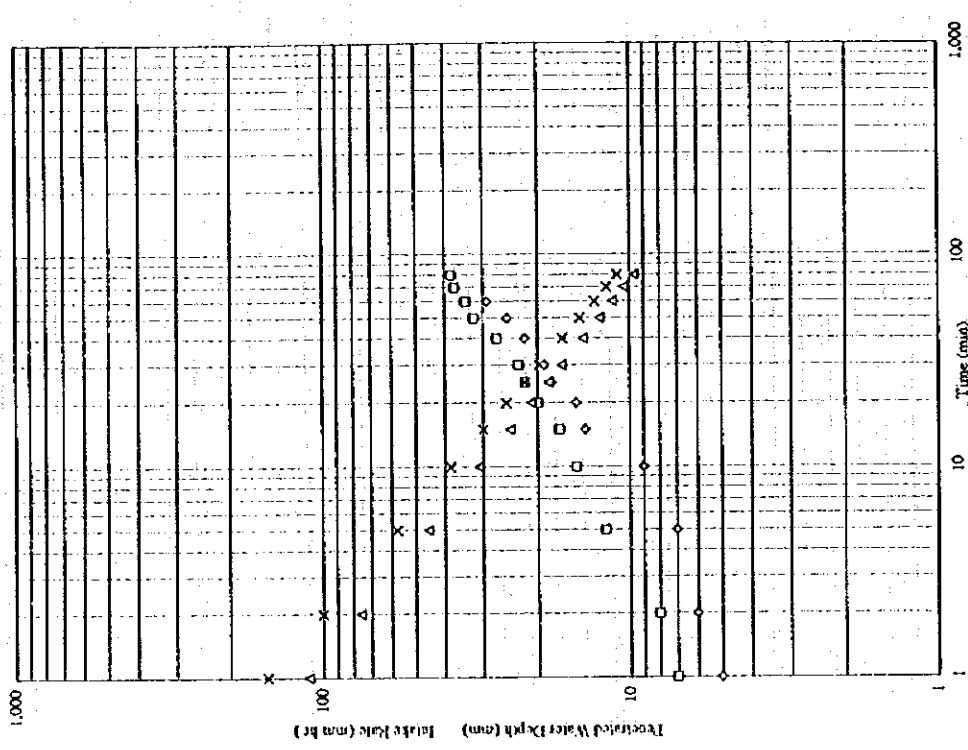
Time (min)	Cylinder 1		Cylinder 2		Remarks
	Water Depth Penetrated (mm)	Penetration Speed (mm/hr)	Water Depth Penetrated (mm)	Penetration Speed (mm/hr)	
0	120.0		150.0		
1	101.0	19.0	138.0	12.0	720.0
2	96.0	24.0	133.0	17.0	300.0
3	88.0	32.0	124.0	26.0	180.0
10	79.0	41.0	115.0	37.0	132.0
15	73.0	47.0	105.0	45.0	96.0
20	68.0	52.0	97.0	53.0	86.0
25	65.0	57.0	93.0	60.0	84.0
30	63.0	60.0	88.0	68.0	96.0
40	60.0	72.0	80.0	80.0	72.0
50	60.0	82.0	72.0	92.0	72.0
60	48.0	90.0	60.0	108.0	66.0
70	48.0	98.0	48.0	114.0	66.0
80	78.0	104.0	79.0	124.0	60.0
100	61.0	121.0	60.0	148.0	72.0
120	112.0	139.0	54.0		
Basic Intake Rate	12.7 mm/hr (3.56 min.)		27.1 mm/hr (276.4 min.)		
Average	19.9 mm/hr (316.2 min.)				



**Intake Rate Test No. 3**

Intake Rate Test No. 4

Location		Date: June 4, 1955 (0-30)		Climate: fine		
Dunes Farm in Dunes east 55-56-27 E		Texture of Soil		Silty Sand with Gravel		
Profile No.		Initial Conditions		Dry		
Land Use		young Date Palm Field				
Time (min)	Water Depth (mm)	Cylinder 1		Cylinder 2		Remarks
		Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)	Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)	
0	155.0					
1	130.0	156.0 (1.50)	300.0	129.0	7.0	Soil pan at 30-40 cm
2	122.0	148.0	60.0	148.0	8.0	450.0 bulldozer compaction
3	148.0	144.0	20.0	144.0	12.0	60.0 R years ago
10	146.0	141.0	24.0	141.0	15.0	80.0
15	141.0	139.0	60.0	139.0	17.0	36.0
20	140.0	136.0	12.0	136.0	20.0	24.0
25	137.0	134.0	36.0	134.0	22.0	36.0
30	136.0	133.0	12.0	133.0	23.0	24.0
40	133.0	129.0	18.0	129.0	27.0	12.0
50	130.0	124.0	25.0	124.0	32.0	24.0
60	126.0	122.0	29.0	122.0	34.0	30.0
70		119.0		119.0	37.0	12.0
80		118.0		118.0	38.0	18.0
100						6.0
120						
Basic Intake Rate		4.4 mm/hr (33.13 min.)		4.5 mm/hr (338.9 min.)		C.C. 10-1.50 then 18.8
Average		4.4 mm/hr		4.6 mm/hr		(346.6 min.)

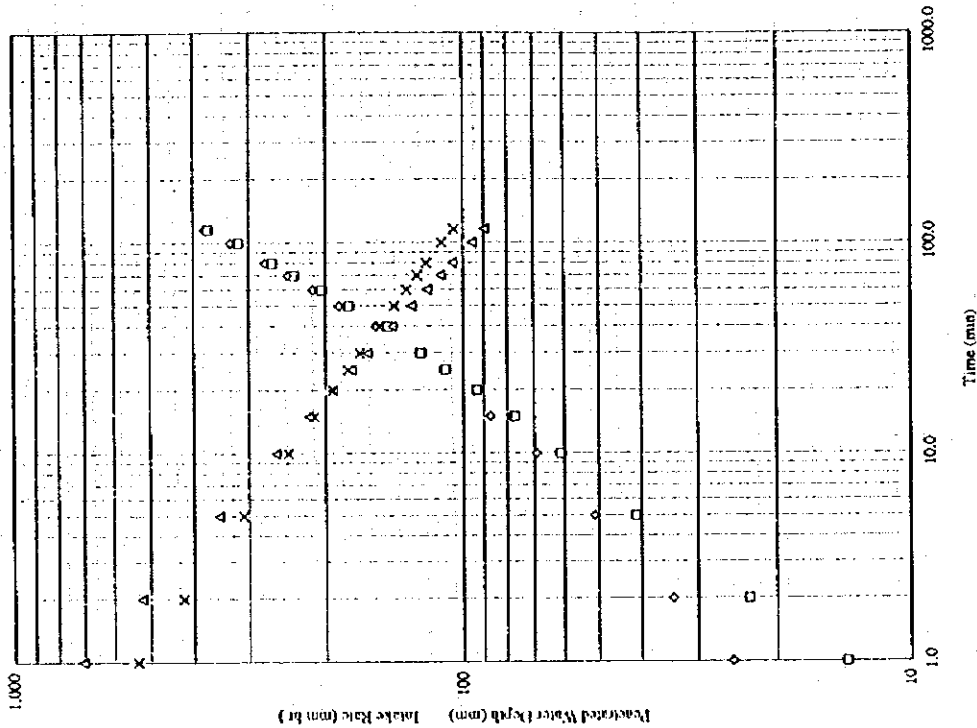


○ Water Depth Penetrated (mm)-1 □ Water Depth Penetrated (mm)-2 △ Intake Rate-1 (mm/hr) × Intake Rate-2 (mm/hr)

Intake Rate Test No. 4

**Intake Rate Test No. 5**

Location		Date: June 4, 1995, 13:00		Chinase: fine		Soils: Sand	
northern Dihad		55-Sub-E		Structure of Soil		dry	
Well No		Abandoned Pasture field		Initial Conditions			
Land Use		Cylinder 1		Cylinder 2		Remarks	
Time (min)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/hr)	
0	130.0			140.0			
1	103.0	25.0	1500.0	136.0	14.0	840.0	
2	96.0	34.0	540.0	117.0	23.0	540.0	
3	79.0	51.0	340.0	99.0	41.0	360.0	
10	53.0	69.0	216.0	110.0	61.0	240.0	
15	104.0	87.0	216.0	94.0	77.0	192.0	
20	58.0	93.0	72.0	78.0	93.0	192.0	
25	134.0	109.0	192.0	144.0	109.0	192.0	
30	109.0	124.0	180.0	100.0	123.0	168.0	
40	79.0	140.0	180.0	78.0	143.0	132.0	
50	108.0	186.0	192.0	96.0	177.0	192.0	
60	81.0	213.0	162.0	69.0	204.0	162.0	
70	110.0	243.0	180.0	140.0	253.0	186.0	
80	79.0	274.0	186.0	80.0	264.0	174.0	
100	83.0	329.0	165.0	26.0	316.0	156.0	
116	38.0	376.0	176.3	46.0	370.0	162.0	Cylinder 2 120 min.
Basic Intake Rate		63 mm/hr (260.6 mm.)		84.9 mm/hr (204.6 mm.)			
Average		74.9 mm/hr (292.6 mm.)					

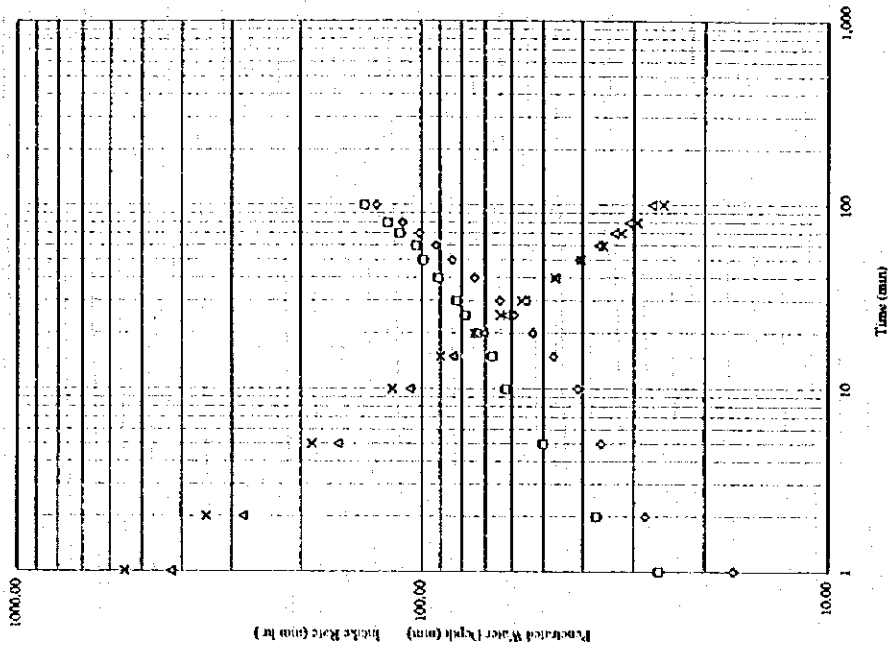


◊ Water Depth Penetrated (mm)-1    ◻ Water Depth Penetrated (mm)-2    Δ Intake Rate-1 (mm/hr.)    X Intake Rate-2 (mm/hr.)

**Intake Rate Test No. 5**

Intake Rate Test No. 6

Location		Date: June 18, 1955		Climate: fine	
Project No.		Type of Soil		Sand: gravel	
Plant Use		Initial Conditions		Dry on surface	
Cylinder Form		Cylinder 1		Cylinder 2	
Time (min)	Water Depth Penetrated (mm)	Evaporation Speed (mm/Hr)	Water Depth Penetrated (mm)	Evaporation Speed (mm/Hr)	Remarks
0	140.0		150.0		
1	125.0		125.0		
2	112.0	17.0	112.0	26.0	17.62
5	104.0	28.0	100.0	37.0	21.29
10	99.0	36.0	88.0	50.0	33.62
15	154.0	41.0	140.0	62.0	44.39
20	148.0	47.0	133.0	67.0	52.21
25	142.0	53.0	129.0	73.0	58.61
30	137.0	59.0	124.0	79.0	64.09
40	127.0	64.0	120.0	82.0	66.94
50	117.0	74.0	111.0	91.0	77.38
60	109.0	84.0	103.0	99.0	84.63
70	141.0	92.0	140.0	103.0	91.03
80	131.0	101.0	130.0	113.0	96.86
100	113.0	111.0	122.0	121.0	102.17
120		129.0	105.0	138.0	111.73
Basic Intake Rate		12.5 mm/hr (359.5 mm.)	10 mm/hr (401.4 mm.)		
Average		11.2 mm/hr (340.5 mm.)			

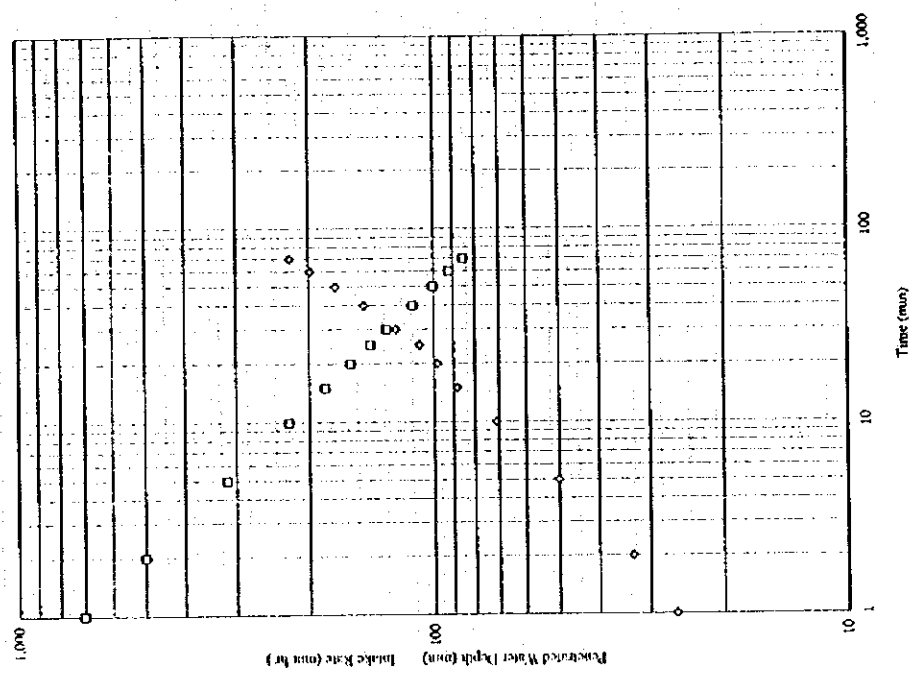


○ Water Depth Penetrated (mm)-1    □ Water Depth Penetrated (mm)-2    △ Intake Rate-1 (mm/hr)    X Intake Rate-2 (mm/hr)

Intake Rate Test No. 6

**Intake Rate Test No. 7**

Location: 55-33-SN Date: June 10, 1925 Climate: Fine		Nature of Soil: Silty Sand (fract) Initial Conditions: No consolidation activity					
Sample No: 55-37-31 E Center Point area:		Cylinder 1 Cylinder 2					
Time (min)	Water Depth (mm)	Depth of Water Penetrated (mm)	Water Depth Penetrated (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/Hr)	Penetration Speed (mm/Hr)	Remarks
0	190.0						
1	104.0	26.0	190.0				
2	97.0	33.0	157.0				
5	80.0	50.0	140.0				
10	63.0	67.0	123.0				
15	46.0	84.0	106.0				
20	29.0	101.0	89.0				
25	12.0	118.0	72.0				
30		135.0	55.0				
40		152.0	38.0				
50		169.0	21.0				
60		186.0	4.0				
70		203.0					
80		220.0					
100							
120							
Basic Intake Rate		41.3 mm/hr (298.4 mm.)					
Average							

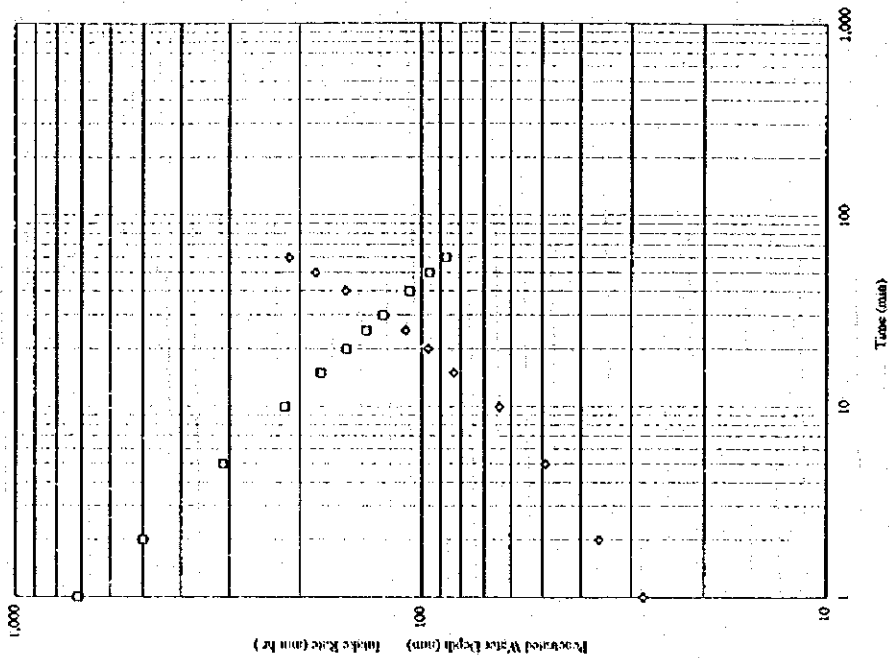


○ Water Depth Penetrated (mm)-1  
 □ Intake Rate-1 (mm/hr)

**Intake Rate Test No. 7**

Intake Rate Test No. 8

Location		Date		Time																																																																																																	
25+1040 N S5595.5 E		10/12/95		12:30																																																																																																	
Profile No.	Profile Name	Profile of Soil	Profile	Time	Remarks																																																																																																
100	100	100	100	100	100																																																																																																
<table border="1"> <thead> <tr> <th colspan="2">Cylinder 1</th> <th colspan="2">Cylinder 2</th> <th rowspan="2">Remarks</th> </tr> <tr> <th>Water Depth Penetrated (mm)</th> <th>Penetration Speed (mm/Hr)</th> <th>Water Depth Penetrated (mm)</th> <th>Penetration Speed (mm/Hr)</th> </tr> </thead> <tr> <td>0</td> <td>133.0</td> <td>0</td> <td>133.0</td> <td></td> </tr> <tr> <td>1</td> <td>105.0</td> <td>28.0</td> <td>1697.0</td> <td></td> </tr> <tr> <td>2</td> <td>97.0</td> <td>36.0</td> <td>490.0</td> <td></td> </tr> <tr> <td>5</td> <td>84.0</td> <td>49.0</td> <td>260.0</td> <td></td> </tr> <tr> <td>10</td> <td>115.0</td> <td>64.0</td> <td>180.0</td> <td></td> </tr> <tr> <td>15</td> <td>96.0</td> <td>83.0</td> <td>228.0</td> <td></td> </tr> <tr> <td>20</td> <td>83.0</td> <td>96.0</td> <td>156.0</td> <td></td> </tr> <tr> <td>25</td> <td>117.0</td> <td>109.0</td> <td>156.0</td> <td></td> </tr> <tr> <td>30</td> <td>103.0</td> <td>123.0</td> <td>168.0</td> <td></td> </tr> <tr> <td>40</td> <td>73.0</td> <td>153.0</td> <td>180.0</td> <td></td> </tr> <tr> <td>50</td> <td>101.0</td> <td>182.0</td> <td>174.0</td> <td></td> </tr> <tr> <td>60</td> <td>71.0</td> <td>217.0</td> <td>180.0</td> <td></td> </tr> <tr> <td>90</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>100</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>120</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Basic Intake Rate</td> <td colspan="5">37.4 mm/hr (706.2 min. &gt;)</td> </tr> <tr> <td>Average</td> <td colspan="5"></td> </tr> </table>						Cylinder 1		Cylinder 2		Remarks	Water Depth Penetrated (mm)	Penetration Speed (mm/Hr)	Water Depth Penetrated (mm)	Penetration Speed (mm/Hr)	0	133.0	0	133.0		1	105.0	28.0	1697.0		2	97.0	36.0	490.0		5	84.0	49.0	260.0		10	115.0	64.0	180.0		15	96.0	83.0	228.0		20	83.0	96.0	156.0		25	117.0	109.0	156.0		30	103.0	123.0	168.0		40	73.0	153.0	180.0		50	101.0	182.0	174.0		60	71.0	217.0	180.0		90					100					120					Basic Intake Rate	37.4 mm/hr (706.2 min. >)					Average					
Cylinder 1		Cylinder 2		Remarks																																																																																																	
Water Depth Penetrated (mm)	Penetration Speed (mm/Hr)	Water Depth Penetrated (mm)	Penetration Speed (mm/Hr)																																																																																																		
0	133.0	0	133.0																																																																																																		
1	105.0	28.0	1697.0																																																																																																		
2	97.0	36.0	490.0																																																																																																		
5	84.0	49.0	260.0																																																																																																		
10	115.0	64.0	180.0																																																																																																		
15	96.0	83.0	228.0																																																																																																		
20	83.0	96.0	156.0																																																																																																		
25	117.0	109.0	156.0																																																																																																		
30	103.0	123.0	168.0																																																																																																		
40	73.0	153.0	180.0																																																																																																		
50	101.0	182.0	174.0																																																																																																		
60	71.0	217.0	180.0																																																																																																		
90																																																																																																					
100																																																																																																					
120																																																																																																					
Basic Intake Rate	37.4 mm/hr (706.2 min. >)																																																																																																				
Average																																																																																																					

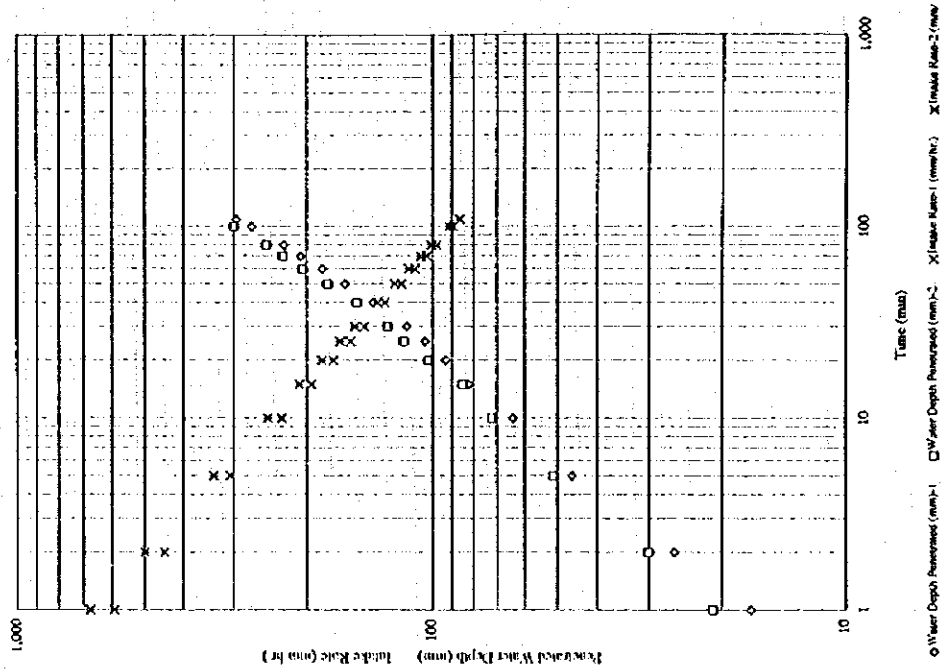


Intake Rate Test No. 8



Intake Rate Test No. 9

Location		Date: June 11, 1955, 8:30		Climate: Insects		Soil: Sand	
Profile No.	55-50-3-E	Texture of Soil		Moisture Content		Dry	
Test No.	Sand (fine) subject to No. 2 and Preliminary Conditions						
Time (min.)	Cylinder 1		Cylinder 2		Remarks		
	Water Depth (mm)	Penetration Speed (mm/hr)	Water Depth (mm)	Penetration Speed (mm/hr)			
0	140.0		140.0				
1	125.0	17.0	119.0	21.0	1560.0		
2	114.0	26.0	110.0	30.0	500.0		
5	94.0	46.0	89.0	51.0	420.0		
10	76.0	64.0	68.0	72.0	252.0		
15	128.0	82.0	127.0	85.0	156.0		
20	111.0	93.0	110.0	102.0	204.0		
25	100.0	104.0	95.0	117.0	180.0		
30	89.0	115.0	84.0	128.0	132.0		
40	116.0	139.0	116.0	152.0	144.0		
50	93.0	162.0	90.0	176.0	156.0		
60	119.0	193.0	114.0	204.0	156.0		
70	96.0	206.0	90.0	228.0	144.0		
80	120.0	226.0	118.0	250.0	132.0		
100	75.0	271.0	69.0	299.0	147.0		
109	51.0	295.0	160.0				
Basic Intake Rate	61.5 mm/hr (246.5 min.)		60.8 mm/hr (260.8 min.)				
Average	60.8 mm/hr (253.7 min.)						

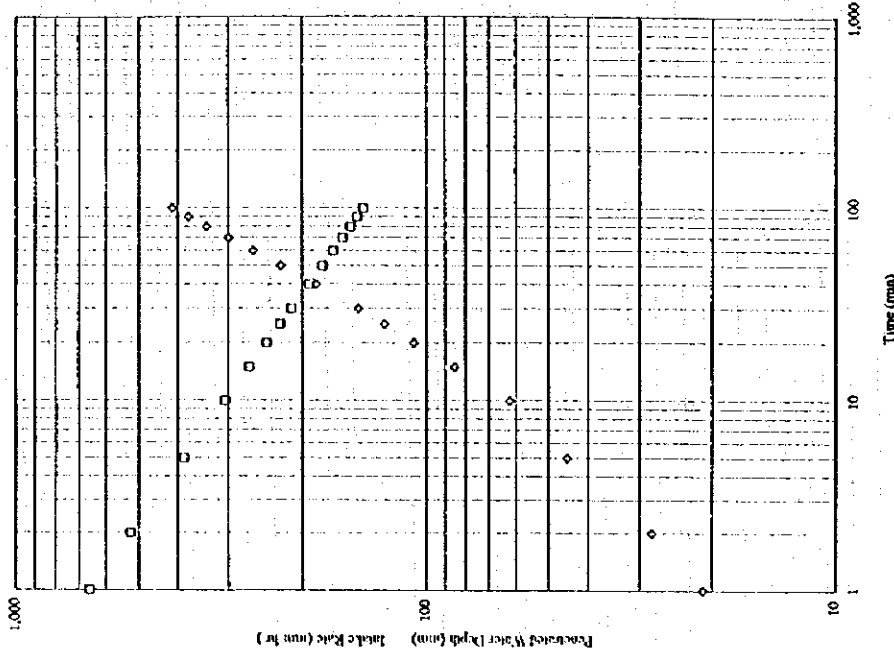


Intake Rate Test No. 9

Intake Rate Test No. 10

Location	25-22-45 N	Date	June 11, 1955, 11:30 A.M.	
Operator	John A. Vialle	55-51-6 F	Climate	fine / hot
Parcel No.	1-39	Texture of Soil	55 cm. Silt/Clay based on Green	
Seed Use	Deep Palm from	Initial Conditions		

Time (min.)	Cylinder 1		Cylinder 2		Remarks
	Water Depth (mm)	Penetration Speed (mm/Hr)	Water Depth (mm)	Penetration Speed (mm/Hr)	
0	140.0				
1	119.0	21.0			
2	112.0	28.0			
5	95.0	45.0			
10	78.0	62.0			
15	119.0	85.0			
20	67.0	102.0			
25	78.0	126.0			
30	120.0	148.0			
40	91.0	184.0			
50	103.0	224.0			
60	66.0	261.0			
70	104.0	279.0			
80	106.0	308.0			
90	69.0	375.0			
100	55.0	411.0			
Final Intake Rate	117.5 mm/hr (200 min.)				
Average					

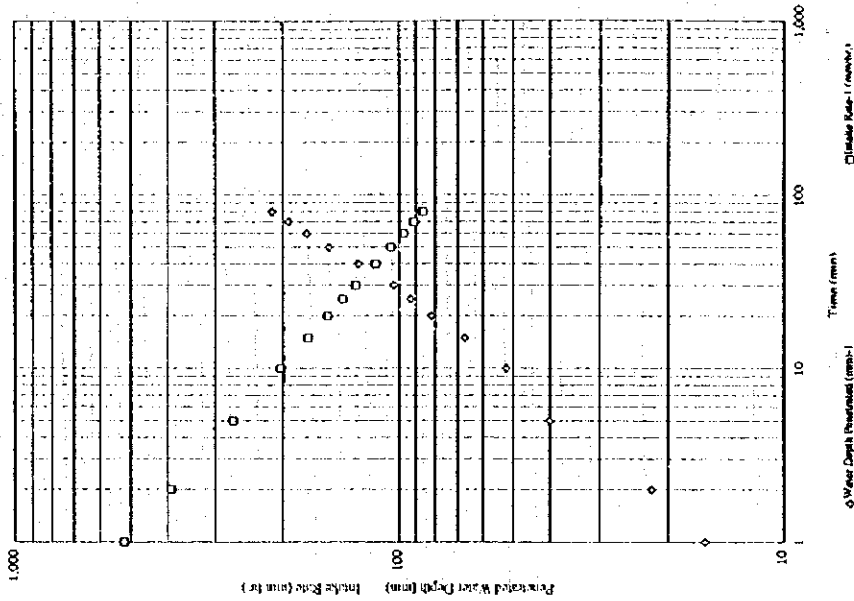


◇ Water Depth Penetration (mm) □ Intake Rate (mm/hr)

Intake Rate Test No. 10

Intake Rate Test No. 11

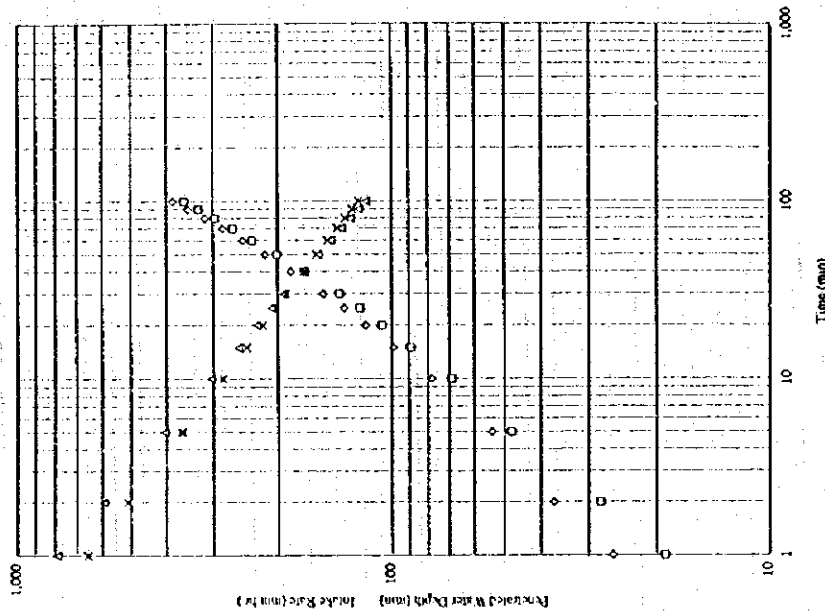
Location		Date		Time / Test		Remarks	
553259 E <td colspan="2">June 11, 1975 <td colspan="2">1600 <td colspan="2">70 cm 315 San Joaquin Gravel </td></td></td>		June 11, 1975 <td colspan="2">1600 <td colspan="2">70 cm 315 San Joaquin Gravel </td></td>		1600 <td colspan="2">70 cm 315 San Joaquin Gravel </td>		70 cm 315 San Joaquin Gravel	
Abundant form near CRT		Estimate of Soil Initial Conditions		Cylinder 1		Cylinder 2	
Time (min)	Water Depth (mm)	Penetration (mm)	Water Depth (mm)	Penetration (mm)	Water Depth (mm)	Penetration (mm)	Remarks
0	140.0		140.0		140.0		
1	118.0	22.0	140.0	22.0	140.0		
5	100.0	40.0	140.0	40.0	140.0		
10	88.0	52.0	140.0	52.0	140.0		
15	82.0	58.0	140.0	58.0	140.0		
20	78.0	62.0	140.0	62.0	140.0		
25	75.0	65.0	140.0	65.0	140.0		
30	72.0	68.0	140.0	68.0	140.0		
40	68.0	72.0	140.0	72.0	140.0		
50	65.0	75.0	140.0	75.0	140.0		
60	62.0	78.0	140.0	78.0	140.0		
70	60.0	80.0	140.0	80.0	140.0		
80	58.0	82.0	140.0	82.0	140.0		
100	55.0	85.0	140.0	85.0	140.0		
120							
Intake Rate		54.6 mm/hr (245.8 min.)					
Average							



Intake Rate Test No. 11

Irrigate Rate Test No. 12

Location		Date, Time, 12, 1975, 8:52 a.m.		Climate: Temp		Soil: Sand	
Weather		Group of Soil		Irrigate Rate		Surface Evap	
Parcel No		Farmer Farm with sprinklers		Irrigate Rate		Surface Evap	
Parcel No		Farmer Farm with sprinklers		Irrigate Rate		Surface Evap	
Time (min)	Water Depth (mm)	Penetration (mm)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration (mm)	Remarks	
0	130.0		130.0	19.0	1:40.0		
1	130.0	26.0	156.0	19.0	1:40.0		
2	31.0	37.0	68.0	38.0	5:40.0		
5	26.0	54.0	80.0	48.0	4:00.0		
10	105.0	78.0	283.0	68.0	2:52.0		
15	83.0	99.0	253.0	88.0	2:40.0		
20	27.0	117.0	216.0	106.0	2:04.0		
25	114.0	133.0	192.0	121.0	1:40.0		
30	54.0	151.0	215.0	137.0	1:22.0		
40	130.0	144.0	198.0	168.0	1:06.0		
50	58.0	214.0	192.0	201.0	1:08.0		
60	53.0	249.0	194.0	255.0	2:04.0		
70	91.0	282.0	196.0	265.0	1:40.0		
80	64.0	315.0	198.0	295.0	1:46.0		
90	103.0	330.0	210.0	328.0	1:22.0		
100	62.0	364.0	204.0	348.0	1:40.0		
Result		79.8 mm/hr	(249.1 mm)	91.6 mm/hr	(218.9 min.)	0.87%	
Average		85.7 mm/hr	(234 min.)				

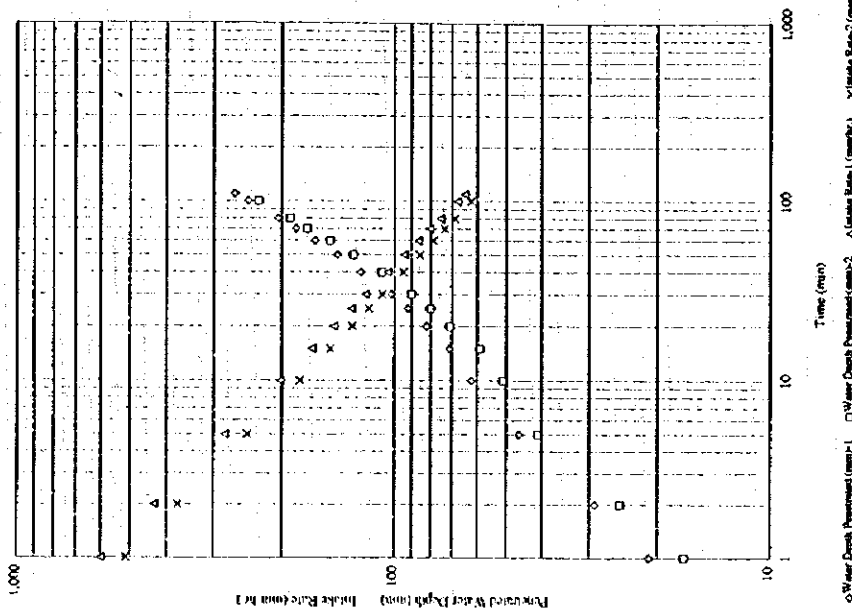


Water Depth Penetrated (mm)-1   
  Water Depth Penetrated (mm)-2   
  Infiltration Rate-1 (mm/hr)   
  Infiltration Rate-2 (mm/hr)

Irrigate Rate Test No. 12

Intake Rate Test No. 13

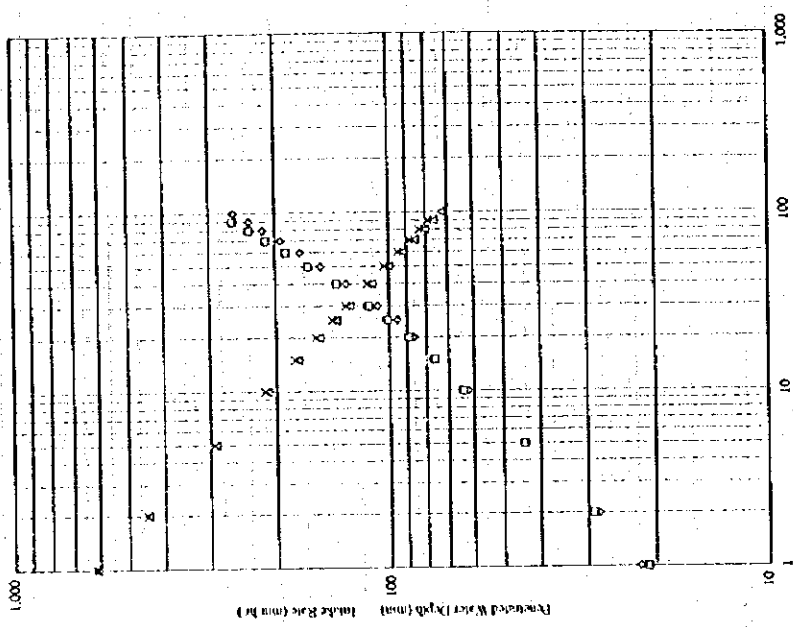
Location		Date		Climate		Remarks	
Khadem		12/19/56		Clear			
Source No.		55-07-52 F		Texture of Soil		55 cm. Silt, sand on surface	
Land Use		Pasture		Moisture		Surface Drought Impaired	
Time (min)	Water Depth (mm)	Counter 1		Counter 2		Penetration (mm)	Remarks
		Depth (mm)	Penetration (mm)	Depth (mm)	Penetration (mm)		
0	150.0	150.0	150.0	150.0	150.0		
1	107.0	31.0	120.0	17.0	107.0		
2	101.0	29.0	49.0	25.0	49.0		
5	120.0	46.0	34.0	41.0	320.0		
10	114.0	52.0	192.0	40.0	120.0		
15	105.0	71.0	108.0	59.0	96.0		
20	94.0	82.0	132.0	71.0	144.0		
25	84.0	92.0	150.0	80.0	108.0		
30	120.0	102.0	120.0	90.0	120.0		
40	99.0	123.0	129.0	83.0	108.0		
50	120.0	142.0	114.0	109.0	126.0		
60	107.0	143.0	126.0	100.0	120.0		
70	97.0	193.0	120.0	149.0	120.0		
80	100.0	204.0	126.0	171.0	132.0		
100	67.0	244.0	130.0	239.0	114.0		
110	47.0	244.0	130.0		117.0		
Average		41.3 mm/hr (204.1 min.)	40.2 mm/hr (279.5 min.)	36.1 mm/hr (274.8 min.)			1.00



Intake Rate Test No. 13

Intake Rate Test No. 14

Location		Date		Time		Climate		Remarks	
Hemlock		25-25-55		1978		13:30		Dry	
Plot No.		55-52-1 F		Feature of Soil		Climate		Dry	
Latitude		Date		Time		Climate		Remarks	
38° 15' N		25-25-55		13:30		Dry		Dry	
Time (min)	Water Depth (mm)	Water Penetration (mm)	Water Depth (mm)	Water Penetration (mm)	Water Depth (mm)	Water Penetration (mm)	Water Depth (mm)	Water Penetration (mm)	Remarks
0	100.0	22.0	132.0	100.0	21.0	134.0			
5	102.0	28.0	340.0	101.0	29.0	480.0			
10	104.0	34.0	320.0	102.0	34.0	300.0			
15	106.0	40.0	216.0	103.0	44.0	240.0			
20	108.0	46.0	140.0	104.0	50.0	144.0			
25	110.0	52.0	104.0	105.0	56.0	136.0			
30	112.0	58.0	106.0	106.0	62.0	144.0			
35	114.0	64.0	108.0	107.0	68.0	144.0			
40	116.0	70.0	110.0	108.0	74.0	144.0			
45	118.0	76.0	112.0	109.0	80.0	144.0			
50	120.0	82.0	114.0	110.0	86.0	144.0			
55	122.0	88.0	116.0	111.0	92.0	144.0			
60	124.0	94.0	118.0	112.0	98.0	144.0			
65	126.0	100.0	120.0	113.0	104.0	144.0			
70	128.0	106.0	122.0	114.0	110.0	144.0			
75	130.0	112.0	124.0	115.0	116.0	144.0			
80	132.0	118.0	126.0	116.0	122.0	144.0			
85	134.0	124.0	128.0	117.0	128.0	144.0			
90	136.0	130.0	130.0	118.0	134.0	144.0			
95	138.0	136.0	132.0	119.0	140.0	144.0			
100	140.0	142.0	134.0	120.0	146.0	144.0			
Average	127.0	114.0	134.0	117.0	127.2	144.0	44.3 mm/hr (275.8 mils.)	47.4 mm/hr (273.2 mils.)	0.9%

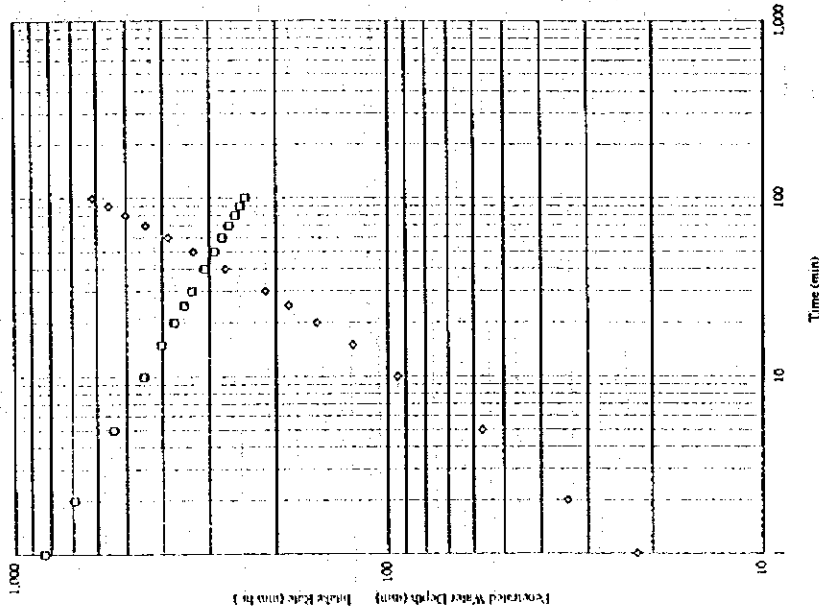


○ Water Depth Penetration (mm) □ Water Depth Penetration (mm) 2 Intake Rate 1 (mm/hr) X Intake Rate 2 (mm/hr)

Intake Rate Test No. 14

Intake Rate Test No. 15 - A

Location		Soil Class		Dens. (lb./cu. ft.)		Climate		Time	
Latitude		55-57-31 E		1.00		Soil		Soil	
State No.		Prepared		Moisture (%)		Infiltration		Infiltration	
Date		Prepared		Moisture (%)		Infiltration		Infiltration	
Time (min)	Water Depth (mm)	Depth of Water Penetration (mm)	Penetration Speed (mm/hr)	Water Depth (mm)	Depth of Water Penetration (mm)	Penetration Speed (mm/hr)	Remarks	Remarks	Remarks
0	140.0								
1	114.0	22.0	1320.0						
5	103.0	34.0	730.0						
10	103.0	37.0	460.0						
15	73.0	34.0	444.0						
20	54.0	19.0	347.0						
25	62.0	15.0	372.0						
30	112.0	18.0	346.0						
35	120.0	21.0	336.0						
40	120.0	27.0	340.0						
50	140.0	30.0	334.0						
60	140.0	34.0	326.0						
70	140.0	43.0	326.0						
80	140.0	50.0	340.0						
90	140.0	55.0	300.0						
100	140.0	61.0	340.0						
Block Intake Rate	211.5 mm/hr (84.9 mm)								

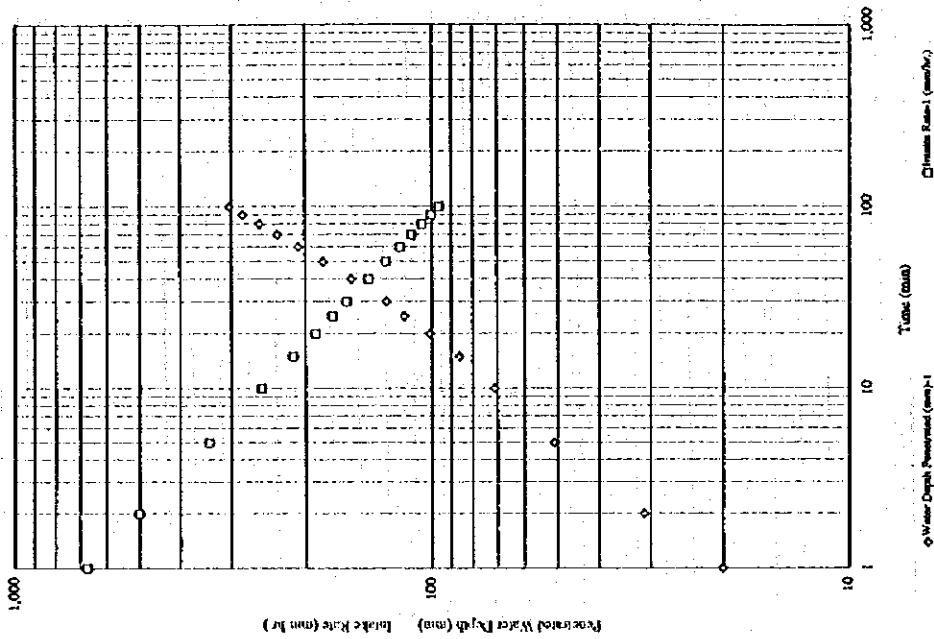


□ Infiltration Rate (mm/hr)

Intake Rate Test No. 15 - A

Intake Rate Test No. 15-B

Location		Date, June 13, 1956, 1333			
S 455 N		Climate: fair			
S 57-35 E		Soil: sandy loam on coarse sand/gravel			
T-101-R		Teral Conditions: Dry			
Prepared		Field			
Calculator 1		Calculator 2			
Time (min.)	Water Depth Penetrated (mm)	Penetration Speed (mm/hr)	Water Depth Penetrated (mm)	Penetration Speed (mm/hr)	Remarks
0	140.0				
1	120.0	20.0	1200.0		
2	109.0	31.0	660.0		
5	89.0	51.0	400.0		
10	120.0	71.0	240.0		
15	105.0	86.0	180.0		
20	90.0	101.0	180.0		
25	125.0	116.0	180.0		
30	113.0	128.0	144.0		
40	115.0	155.0	162.0		
50	89.0	181.0	156.0		
60	114.0	207.0	156.0		
70	89.0	232.0	150.0		
80	116.0	256.0	144.0		
90	91.0	281.0	150.0		
100	118.0	303.0	132.0		
Basic Intake Rate		64.7 mm/hr (250.5 min.)			

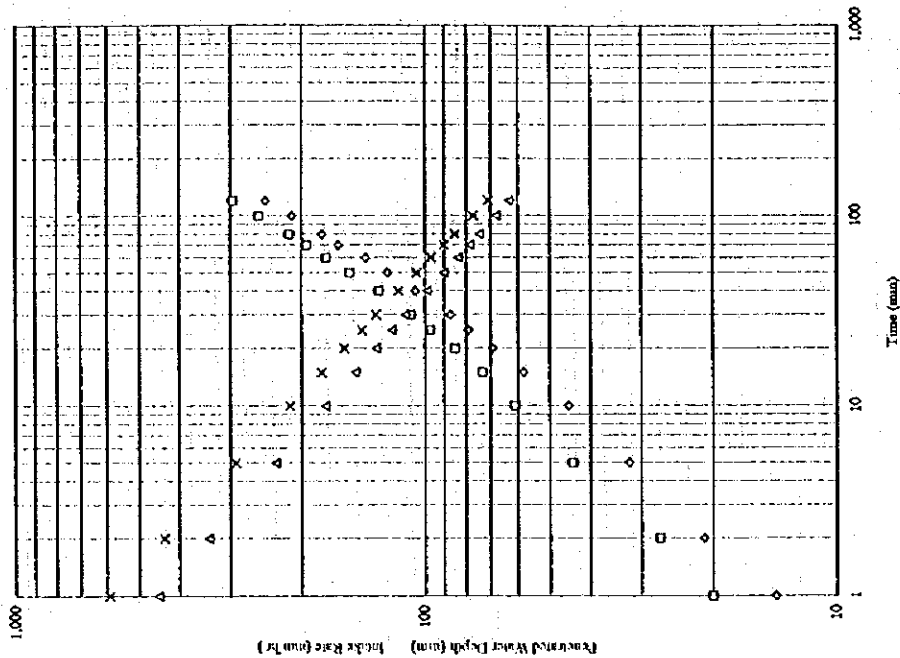


Intake Rate Test No. 15-B



Intake Rate Test No. 16

Location		Date: June 13, 1965		Climate: fine		Soil: Sandy	
Southern Michigan		55-52-A-E		Texture of Soil		Drainage	
Coral (ft)		Penetration (mm)		Initial Conditions			
Time (min)	Water Depth (mm)	Penetration Speed (mm/hr)	Water Depth (mm)	Cylinder 2		Remarks	
				Depth of Water Penetration (mm)	Penetration Speed (mm/hr)		
0	140.0		140.0				
1	126.0	14.0	120.0	20.0	1200.0		
2	119.0	21.0	113.0	27.0	420.0		
3	108.0	32.0	96.0	44.0	340.0		
10	95.0	45.0	79.0	61.0	204.0		
15	127.0	98.0	128.0	73.0	144.0		
20	116.0	69.0	116.0	83.0	144.0		
25	105.0	79.0	104.0	97.0	144.0		
30	94.0	87.0	93.0	106.0	132.0		
40	125.0	104.0	119.0	129.0	126.0		
50	104.0	123.0	146.0	152.0	138.0		
60	88.0	139.0	180.0	174.0	132.0		
70	121.0	162.0	118.0	194.0	120.0		
80	103.0	178.0	96.0	214.0	120.0		
100	72.0	211.0	79.0	255.0	123.0		
120	106.0	245.0	100.0	295.0	120.0		
Basic Intake Rate		46.8 mm/hr (246.4 min.)		49.9 mm/hr (265.8 min.)		0.94	
Average		48.3 mm/hr (256.1 min.)					

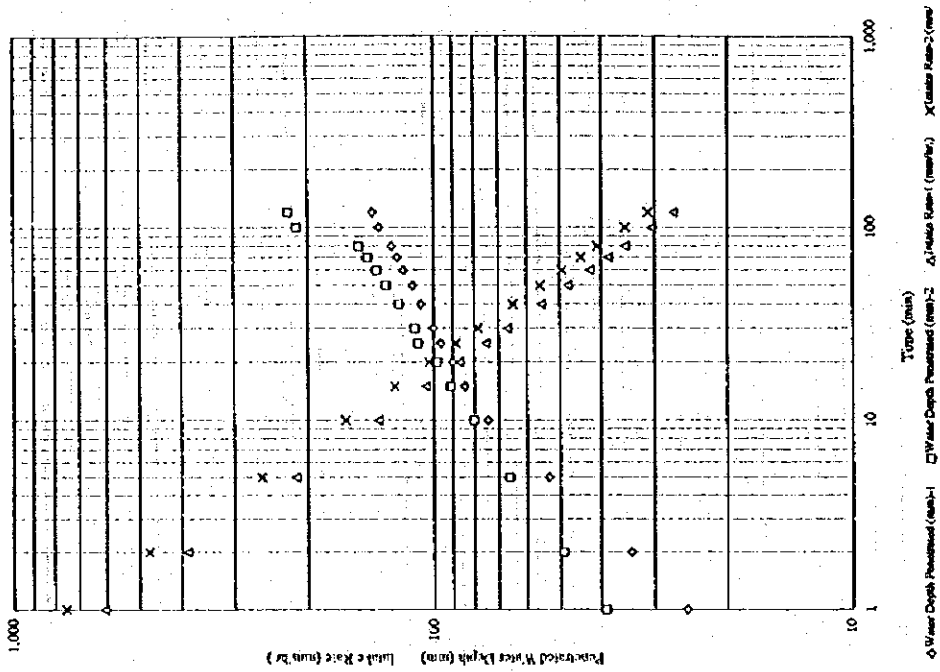


○ Water Depth Penetrated (mm)-1    □ Water Depth Penetrated (mm)-2    △ Intake Rate-1 (mm/hr)    X Intake Rate-2 (mm/hr)

Intake Rate Test No. 16

Intake Rate Test No. 17

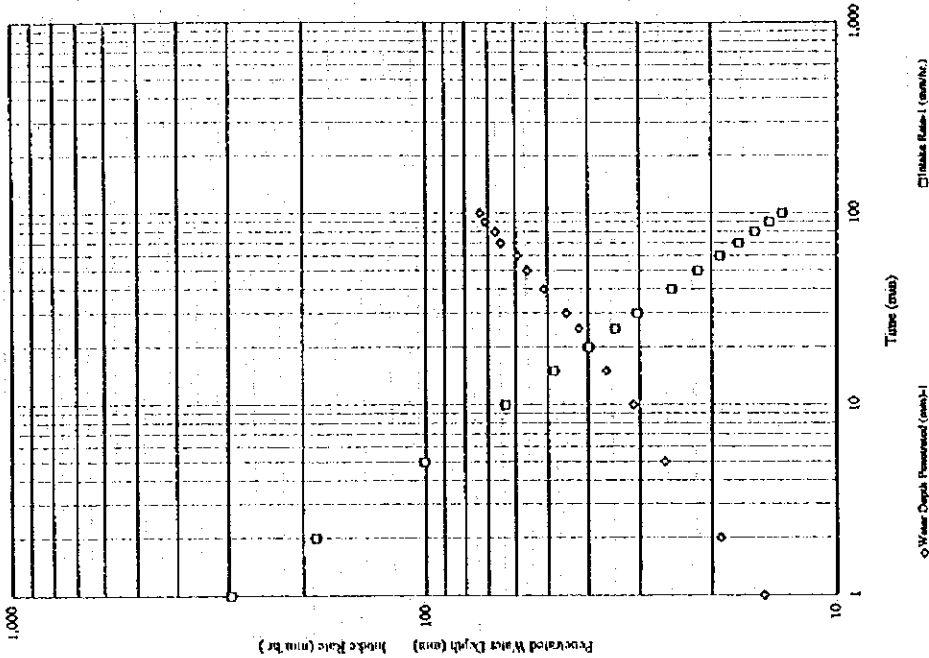
Location		Date		Profile No.		Lateral		Remarks	
2500-11 N 55-55-26 E		June 1, 1955, 1955-2-20		55-55-26 E		Silty Sand w/ gravel		Dry	
Texture of Soil		Internal Conditions		Chamber 1		Chamber 2		Remarks	
Time (min)	Water Depth (mm)	Depth of Water Penetrated (mm)	Nonuniform Head (mm)	Water Depth (mm)	Depth of Water Penetrated (mm)	Nonuniform Head (mm)	Penetration Spectrometer		
0	140.0			142.0					
1	115.0	54.0	1400.0	100.0	39.0	750.0			
2	106.0	34.0	440.0	93.0	49.0	600.0			
5	87.0	33.0	380.0	82.0	66.0	340.0			
10	119.0	74.0	252.0	109.0	90.0	190.0			
15	109.0	84.0	170.0	125.0	91.0	132.0			
20	103.0	90.0	72.0	122.0	98.0	84.0			
25	134.0	94.0	72.0	111.0	109.0	122.0			
30	130.0	100.0	48.0	109.0	111.0	74.0			
40	123.0	107.0	42.0	130.0	121.0	60.0			
50	118.0	112.0	30.0	131.0	130.0	54.0			
60	112.0	118.0	34.0	114.0	137.0	42.0			
70	108.0	122.0	24.0	107.0	144.0	42.0			
80	104.0	126.0	24.0	100.0	151.0	42.0			
100	95.0	135.0	27.0	89.0	212.0	193.0			
120	90.0	140.0	15.0	79.0	222.0	70.0			
Average		12.6 mm/hr (389.8 min.)		13.3 mm/hr (394.5 min.)		14 mm/hr (399.3 min.)		0.90	



Intake Rate Test No. 17

Intake Rate Test No. 18 A

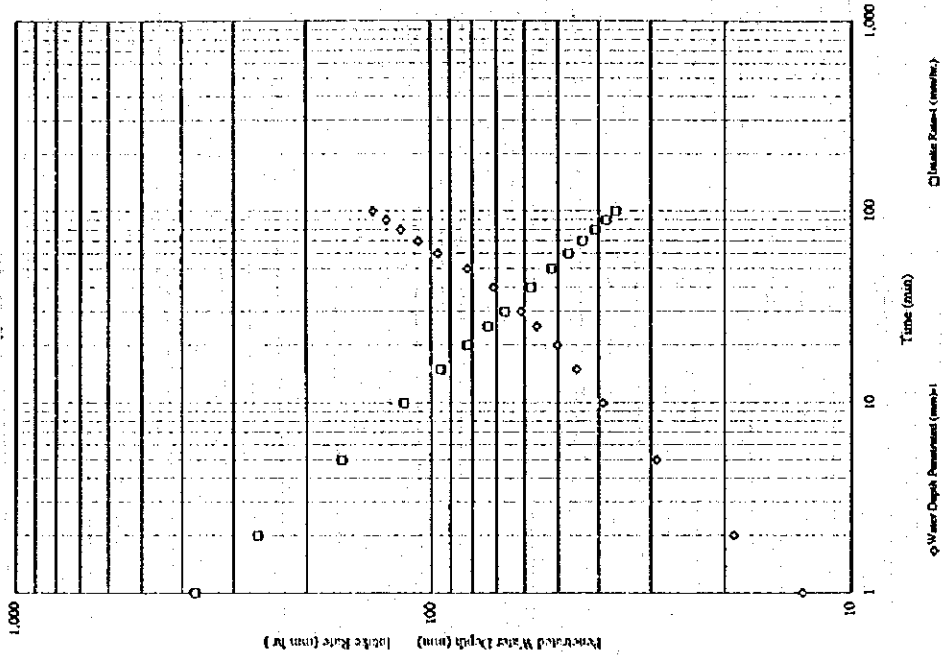
Location		Date		Time		Climate		Remarks	
Station		55-96-27 B		1-103		alfalfa field		Silty Sand on the hard clay layer	
Profile No		1-103		Final Conditions					
Cylinder 1		Cylinder 2		Cylinder 3		Cylinder 4		Remarks	
Time (min)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/Hr)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/Hr)	Water Depth (mm)	Depth of Water Penetrated (mm)	Penetration Speed (mm/Hr)
0	140.0								
1	135.0	15.0	900.0						
2	131.0	19.0	240.0						
5	114.0	26.0	140.0						
10	109.0	31.0	60.0						
15	104.0	36.0	40.0						
20	100.0	40.0	48.0						
25	96.0	42.0	54.0						
30	95.0	45.0	56.0						
40	89.0	51.0	56.0						
50	84.0	56.0	30.0						
60	87.0	59.0	18.0						
70	83.0	65.0	36.0						
80	82.0	67.0	12.0						
90	85.0	71.0	24.0						
100	82.0	73.0	12.0						
Basic Intake Rate	5.3 mm/hr (401.9 mm <sup>2</sup> )			Average					



Intake Rate Test No. 18 A

Intake Rate Test No. 18 A

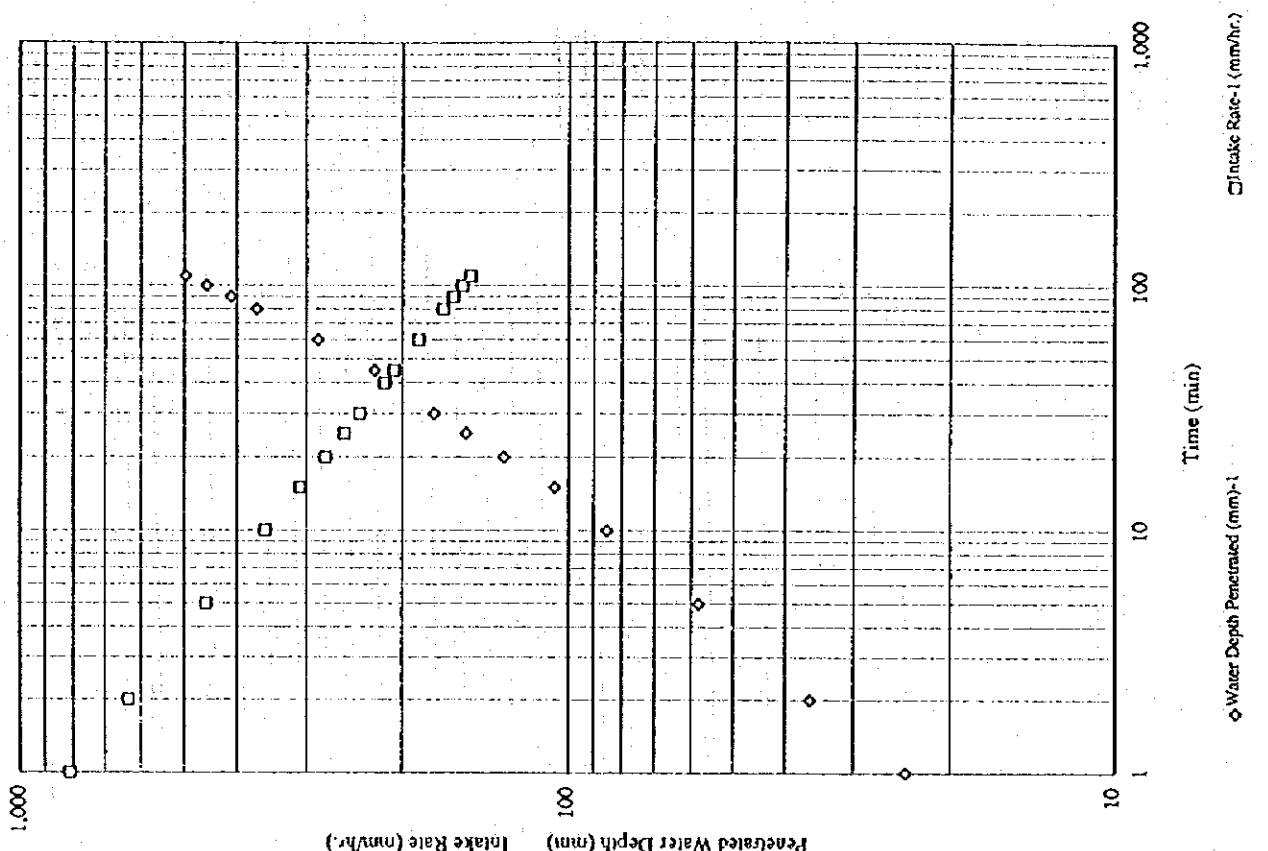
Location		Date		Operator	
25-17-12 N		June 18, 1959, 11:30		C. H. ...	
Filter No.	Filter Type	Filter of Steel	Filter of Steel	Filter of Steel	Filter of Steel
7-103	all 6/8 inch				
Cylinder 1		Cylinder 2		Remarks	
Time (min)	Water Depth (mm)	Depth of Water Permitted (mm)	Depth of Water Permitted (mm)	Water Depth Permitted (mm)	Speed (mm/hr)
0	140.0				
1	127.0	13.0		780.0	
2	121.0	19.0		360.0	
5	111.0	29.0		200.0	
10	101.0	39.0		120.0	
15	95.0	45.0		72.0	
20	90.0	50.0		60.0	
25	84.0	56.0		72.0	
30	79.0	61.0		60.0	
40	69.0	71.0		60.0	
50	123.0	92.0		66.0	
60	115.0	99.0		84.0	
70	104.0	107.0		66.0	
80	98.0	118.0		66.0	
90	83.0	128.0		60.0	
100	75.0	136.0		60.0	
Basic Intake Rate		20.8 mm/hr (302.8 min.)			
Average					



Intake Rate Test No. 18 B

Intake Rate Test No. 12

Location		Date: June 26, 1956 (03-2)	
Station		Climax (hr)	
Section		Speed (mm/hr)	
Point No.		Speed (mm/hr)	
Grid Line		Speed (mm/hr)	
Remarks		Remarks	
0	4.00		
1	116.0	2.40	1,400.0
2	104.0	7.60	720.0
3	82.0	8.00	440.0
10	117.0	85.0	72.0
15	92.0	106.0	52.0
20	115.0	131.0	40.0
25	93.0	159.0	24.0
30	118.0	175.0	24.0
40	79.0	214.0	21.0
45	65.0	223.0	17.0
50	140.0	284.0	24.0
60	140.0	346.0	24.0
90	140.0	410.0	25.0
100	140.0	455.0	27.0
110	140.0	477.0	25.0
Break Intake Rate	118.1 mm/hr (2153 min.)		
Average			



4.3. Results of Groundwater Laboratory Analysis

Laboratory Analysis Results of Groundwater Quality

Sr. No.	Sample No.	Cation (meq/L)						Anion (meq/L)						EC $\mu$ S/cm	pH	SAR	Water Type	UAE National Grd.	
		Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Fe	Total	HCO <sub>3</sub> <sup>-</sup>	CO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>-2</sup>	Cl	Total	E					N	
1	0509-2	1.00	1.97	14.40	1.02	0.01	18.39	5.00	0.00	2.10	10.41	17.51	1.760	7.57	11.82	S.C	391313	2790084	
2	0509-3	0.80	1.15	12.53	4.99	0.01	19.47	4.00	0.00	2.54	8.01	14.55	1.650	7.70	12.69	S.C	392061	2788587	
3	0509-4	1.00	1.07	18.92	0.08	0.01	21.07	5.00	0.00	4.06	12.01	21.07	2.190	7.61	18.60	S.C	391708	2787222	
4	0509-5	0.60	1.81	14.31	0.05	0.01	16.77	4.00	0.00	5.16	7.61	16.77	1.750	7.79	13.04	S.C	384056	2795785	
5	0509-6	2.79	4.11	32.67	0.15	0.01	39.72	1.61	0.00	2.23	36.04	39.88	3.990	7.45	17.59	S.C	391709	2785686	
6	0509-8	1.40	3.54	2.22	0.08	0.01	7.24	4.51	0.00	0.27	2.51	7.29	731	7.31	1.41	M.B	403002	2776202	
7	0509-10	1.20	5.02	4.18	0.10	0.01	10.50	4.00	0.00	0.71	5.02	9.73	972	7.80	2.37	M.C	400219	2775631	
8	0510-1	0.80	1.40	3.13	0.03	0.01	5.36	2.61	0.00	0.19	2.59	5.39	560	7.85	2.98	S.B	398272	2777032	
9	0510-2	1.40	1.15	14.09	0.03	0.01	16.67	4.00	0.00	2.14	10.60	16.74	1.660	7.55	12.48	S.C	395007	2774533	
10	0510-3						0.00												
11	0510-4	0.60	0.58	6.44	0.10	0.01	7.72	3.20	0.00	1.25	3.41	7.86	831	8.00	8.38	S.C	391336	2767291	
12	0510-5	1.20	2.96	25.01	0.08	0.01	29.25	5.39	0.00	3.69	22.02	31.10	3.100	7.40	17.34	S.C	391945	2765038	
13	0510-6	2.00	1.56	18.79	0.23	0.01	22.58	5.80	0.00	3.44	13.42	22.66	2.330	7.45	14.08	S.C	390134	2765941	
14	0510-7	1.40	5.76	32.62	0.02	0.01	39.80	3.61	0.00	10.81	25.63	40.05	3.930	7.52	17.24	S.C	388012	2765975	
15	0510-9	1.60	5.35	19.53	0.23	0.01	26.71	0.61	0.00	9.62	11.11	21.34	2.670	7.41	10.48	S.C	382014	2765957	
16	0515-2	6.49	11.27	70.25	0.31	0.02	88.32	3.39	0.00	22.49	62.58	88.46	8.840	6.95	23.57	S.C	381582	2768085	
17	0515-4	3.99	18.75	26.62	0.26	0.01	49.62	5.39	0.00	16.45	25.04	46.88	4.470	7.17	7.89	S.C	385137	2777020	
18	0515-5	1.20	3.13	7.00	0.10	0.01	11.43	5.00	0.00	1.50	5.02	11.52	1.150	7.75	4.76	S.C	386828	2775583	
19	0516-1	1.80	3.13	2.91	0.05	0.01	7.89	2.00	0.00	1.54	4.40	7.94	812	7.36	1.85	M.C	394661	2766189	
20	0516-3	1.70	2.96	3.00	0.20	0.01	7.86	2.20	0.00	3.31	2.51	8.02	800	7.35	1.97	S.S	386640	2778679	
21	0516-4	2.00	4.52	18.01	0.10	0.01	24.63	3.03	0.00	4.23	16.02	23.28	2.470	7.50	9.97	S.C	387359	2776691	
22	0516-5	3.59	16.20	59.03	0.43	0.02	79.25	7.00	0.00	13.45	59.05	79.50	8.030	7.12	18.77	S.C	384775	2778729	
23	0516-6	5.99	21.30	62.03	0.41	0.01	89.73	7.39	0.00	15.61	67.09	90.09	9.170	7.00	16.79	S.C	384850	2779730	
24	0516-8	2.59	17.19	47.02	0.33	0.01	67.13	8.00	0.00	1.94	57.47	67.41	6.750	7.10	14.95	S.C	385295	2781332	
25	0529-6						34.56					32.55	4.600	11.20	22.64		400104	2799576	
26	0529-8	2.10	4.36	38.06	0.64	0.01	45.16	3.26	1.30	3.54	36.94	45.04	5.070	8.80	21.18	S.C	401189	2800901	
27	0529-9	0.85	2.55	0.65	0.10	0.00	4.15	2.51	0.00	0.08	1.55	4.14	411	8.20	0.50	M.B	404379	2799088	
28	0529-10	1.05	5.59	5.44	0.20	0.00	12.28	3.72	0.00	0.60	7.98	12.30	1.320	8.10	2.99	S.C	401891	2803068	
29	0530-1	2.79	6.66	52.20	0.36	0.01	62.01	1.62	0.00	5.35	54.99	61.96	6.980	8.30	24.01	S.C	398744	2810938	
30	0530-2	2.10	9.70	17.40	0.31	0.00	29.51	2.93	0.00	4.96	21.57	29.46	3.110	8.30	7.16	S.C	401431	2810886	
31	0530-3	1.85	3.21	7.39	0.28	0.00	12.73	4.70	0.00	5.04	3.02	12.76	1.260	7.60	4.65	S.S	403918	2812111	
32	0530-4	1.75	7.07	17.40	0.38	0.00	26.60	2.28	0.00	0.29	24.00	26.57	2.910	7.50	8.29	S.C	397458	2800598	
33	0530-5	1.05	4.28	6.44	0.18	0.00	11.95	2.74	0.00	1.19	7.98	11.91	1.200	7.80	3.94	S.C	397232	2801487	
34	0530-6	1.05	5.26	11.70	0.18	0.00	18.19	3.52	0.00	2.52	12.10	18.14	1.880	7.70	6.59	S.C	397031	2802537	
35	0530-7	1.40	4.52	13.44	0.31	0.00	19.67	3.92	0.00	2.96	12.75	19.63	2.020	7.70	7.81	S.C	396193	2803905	
36	0530-8	1.05	2.88	11.74	0.33	0.00	16.00	2.93	0.00	2.31	10.72	15.96	1.670	7.80	8.38	S.C	394403	2803889	

(to be contineed)

### Laboratory Analysis Results of Grounwater Quality

Sr. No.	Sample No.	Cation (meq/L)						Anion (meq/L)						EC $\mu$ S/cm	pH	SAR	Water Type	UAE National Grid	
		Ca <sup>2+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Fe	Total	HCO <sub>3</sub> <sup>-</sup>	CO <sub>3</sub> <sup>2-</sup>	SO <sub>4</sub> <sup>2-</sup>	Cl <sup>-</sup>	Total	E					N	
37	0530-9	0.20	0.49	8.05	0.15	0.00	8.89	3.92	0.00	0.01	4.96	8.89	930	8.30	13.71	S.C	392957	2799547	
38	0531-1	0.60	1.32	9.57	0.13	0.00	11.62	3.72	0.40	1.52	6.06	11.70	1,200	8.20	9.77	S.C	394413	2796970	
39	0531-2	0.85	1.40	9.00	0.13	0.00	11.38	3.92	0.40	2.12	4.96	11.40	1,060	8.00	8.49	S.C	393069	2797863	
40	0531-4	0.70	7.57	24.93	0.28	0.01	33.48	3.33	0.40	8.18	21.57	33.48	3,350	8.10	12.26	S.C	391154	2800093	
41	0531-5	1.05	6.58	10.44	0.23	0.01	18.30	3.92	0.40	2.73	11.28	18.33	1,880	7.70	5.35	S.C	387094	2798162	
42	0531-6	1.40	13.16	29.36	0.36	0.01	44.28	3.28	0.00	10.24	30.79	44.31	4,580	7.80	10.88	S.C	389615	2800966	
43	0531-7	1.25	4.85	12.18	0.26	0.01	18.54	4.70	0.00	1.17	12.66	18.53	1,890	8.10	6.97	S.C	386751	2801742	
44	0531-8	2.76	11.27	25.01	0.54	0.01	39.58	4.51	0.40	7.41	27.27	39.59	4,070	7.60	9.44	S.C	385020	2801976	
45	0531-9	1.40	3.29	20.66	0.28	0.01	25.63	4.25	0.00	3.33	18.05	25.63	2,650	7.70	13.49	S.C	385083	2803523	
46	0601-1	1.75	7.07	15.31	0.28	0.01	24.41	4.31	0.00	3.83	16.27	24.41	2,450	7.50	7.29	S.C	387703	2806444	
47	0601-2	2.79	8.96	21.75	0.26	0.01	33.76	4.29	0.40	5.75	23.32	33.76	3,490	7.70	8.97	S.C	386421	2805278	
48	0601-4	3.14	17.93	31.02	0.46	0.01	52.55	5.88	0.40	13.70	32.57	52.55	5,210	7.50	9.56	S.C	384744	2805287	
49	0601-5	2.10	10.30	27.19	0.38	0.01	39.97	5.88	0.00	6.48	27.27	39.63	4,160	7.40	10.92	S.C	383524	2805246	
50	0601-6	2.79	14.97	40.45	0.54	0.01	58.75	3.92	0.00	11.26	43.57	58.75	6,150	7.40	13.57	S.C	383402	2807560	
51	0601-7	1.75	7.07	19.88	0.41	0.01	29.11	4.25	0.00	5.93	18.92	29.10	2,910	7.60	9.47	S.C	381864	2808589	
52	0601-8						35.48					4.70	3,680	7.60	11.21		380385	2808815	
53	0601-10	2.10	9.38	28.27	0.38	0.01	40.13	6.46	0.00	8.10	25.52	40.08	4,030	7.50	11.80	S.C	383711	2804123	
54	0601-11	1.75	5.76	22.84	0.36	0.01	30.71	5.29	0.77	4.58	20.05	30.69	3,150	7.90	11.79	S.C	381393	2803346	
55	0601-12	1.40	5.51	14.35	0.28	0.01	21.54	4.90	0.00	2.50	14.07	21.47	2,280	7.70	7.72	S.C	381389	2802423	
56	0601-13	2.79	10.28	22.75	0.36	0.01	36.18	4.57	0.00	7.43	24.20	36.20	3,630	7.70	8.90	S.C	384426	2803078	
57	0601-14	1.75	4.11	16.31	0.33	0.00	22.50	3.92	0.00	4.06	14.52	22.50	2,270	7.90	9.53	S.C	384235	2799082	
58	0601-15	1.05	3.87	17.23	0.26	0.00	22.41	1.97	0.00	2.81	17.60	22.38	2,260	7.70	10.99	S.C	386000	2796809	
59	0603-1	1.45	3.54	3.48	0.18	0.00	8.65	4.02	0.00	0.23	4.40	8.65	860	7.60	2.20	S.C	392283	2775395	
60	0603-2	1.25	3.87	4.78	0.13	0.00	10.03	4.10	0.00	0.42	5.50	10.02	1,010	8.10	2.99	S.C	393320	2774035	
61	0603-4	13.52	31.17	47.85	0.61	0.02	93.15	5.56	0.00	38.75	48.84	93.15	8,950	7.20	10.12	S.C	387274	2780409	
62	0603-5	2.10	5.02	13.05	0.23	0.00	20.40	6.13	0.00	2.37	11.87	20.37	2,000	7.80	6.92	S.C	390262	2778812	
63	0603-6	4.14	10.20	19.57	0.36	0.01	34.27	6.20	0.00	7.00	21.12	34.32	3,440	7.30	7.31	S.C	387269	2781746	
64	0603-7	1.30	3.78	8.00	0.18	0.00	13.26	4.90	0.00	2.39	6.06	13.35	1,260	7.60	5.02	S.C	399361	2783818	
65	0604-1	1.75	6.00	13.70	0.23	0.00	21.68	6.87	0.00	3.39	11.45	21.71	2,150	7.50	6.96	S.C	379677	2799622	
66	0604-5	7.29	12.01	30.58	0.18	0.00	50.06	2.61	0.00	10.45	36.97	50.03	5,150	7.40	9.84	S.C	388527	2791131	
67	0604-6	2.79	6.99	21.01	0.26	0.00	31.05	3.28	0.00	6.23	21.57	31.08	3,190	7.50	9.50	S.C	390283	2791993	
68	0604-7	0.70	10.77	12.18	0.13	0.00	23.78	3.28	0.00	2.42	18.05	23.75	2,360	7.50	5.09	S.C	388479	2793191	
69	0604-8	0.69	8.31	19.01	0.23	0.00	28.24	1.97	1.97	7.52	16.78	28.24	2,810	9.10	8.96	S.C	390556	2795149	
70	0604-9	0.60	7.48	7.18	0.28	0.00	15.54	3.72	0.00	0.58	11.28	15.58	1,630	7.60	3.57	M.C	389253	2795815	
71	0604-10	0.40	1.32	8.70	0.13	0.00	10.55	4.51	0.77	0.35	4.96	10.59	1,020	8.10	9.38	S.B	391906	2796040	
72	0604-11	0.40	1.56	6.83	0.23	0.00	9.02	3.52	0.00	0.65	4.85	9.02	920	7.60	6.90	S.C	390516	2797323	
73	0604-12	0.40	1.73	9.13	0.13	0.00	11.39	4.90	0.40	0.33	5.78	11.41	1,100	8.10	8.85	S.C	392812	2796687	

**Laboratory Analysis Results of Groundwater Quality**

Sr. No.	Sample No.	Cation (meq/L)					Anion (meq/L)					EC $\mu$ S/cm	pH	SAR	Water Type	UAE National Grd.		
		Ca <sup>+</sup>	Mg <sup>+</sup>	Na <sup>+</sup>	K <sup>+</sup>	Fe	Total	HCO <sub>3</sub>	CO <sub>3</sub>	SO <sub>4</sub>	Cl					Total	E	N
74	0604-13	0.30	1.23	5.00	0.13	0.00	6.66	2.93	0.00	0.77	2.96	6.66	674	8.10	5.72	S.C	395399	2796451
75	0604-14	0.85	2.14	6.92	0.13	0.00	10.04	3.92	0.00	1.12	4.96	10.00	991	7.90	5.66	S.C	393822	2795098
76	0604-15	1.75	6.91	18.66	0.28	0.01	27.60	3.59	0.00	5.10	18.92	27.61	2,730	7.60	8.97	S.C	390475	2799301
77	0604-16	2.35	5.18	13.05	0.23	0.01	20.81	3.72	0.00	3.04	14.04	20.80	2,170	7.80	6.73	S.C	380867	2795842
78	0517-2	0.75	14.06	23.45	0.26	0.00	38.52	5.00	0.00	3.69	30.03	38.72	3,860	7.60	8.62	S.C	385778	2783198
79	0517-4	2.99	10.44	20.58	0.51	0.00	34.52	8.00	0.00	0.62	26.03	34.65	3,560	8.00	7.94	S.C	384414	2783909
80	0517-5	2.49	3.21	10.27	0.26	0.00	16.23	3.10	0.00	0.75	12.41	16.26	1,660	8.00	6.08	S.C	385345	2784884
81	0517-7	2.00	3.70	4.78	0.23	0.00	10.71	4.49	0.00	0.54	5.02	10.05	1,080	8.30	2.83	S.C	391037	2780484
82	0517-8	2.00	2.96	3.00	0.13	0.00	8.09	3.39	0.00	0.31	4.20	7.90	810	8.40	1.91	S.C	400096	2780477
83	0517-9	3.99	5.18	28.06	0.26	0.00	37.49	4.36	0.00	3.79	30.03	38.18	3,760	8.20	13.10	S.C	396257	2782100
84	0517-10	5.49	3.95	40.63	0.46	0.00	50.53	2.00	0.00	6.56	42.05	50.61	5,120	7.50	18.70	S.C	395415	2782901
85	0517-12	9.98	5.92	51.72	0.64	0.00	68.26	1.49	0.00	8.83	58.06	68.38	6,880	7.50	18.34	S.C	393519	2782360
86	0518-1	0.50	4.93	18.36	0.26	0.00	24.05	2.49	0.00	0.58	21.01	24.08	2,430	8.10	11.14	S.C	400684	2783437
87	0518-3	1.50	4.19	10.01	0.23	0.00	15.93	4.49	0.00	0.67	11.00	16.16	1,640	8.40	5.93	S.C	401839	2783920
88	0518-5	2.99	6.66	8.92	0.23	0.00	18.80	4.25	0.00	0.60	14.02	18.87	1,910	7.80	4.06	S.C	398368	2786072
89	0518-6	8.48	6.17	71.95	0.51	0.00	87.11	2.25	0.00	4.93	77.07	84.25	8,780	7.90	26.58	S.C	397351	2780109
90	0518-9	2.49	3.29	26.01	0.38	0.00	32.17	5.00	0.00	1.19	26.03	32.22	3,280	8.00	15.30	S.C	397518	2780529
91	0520-1	1.50	2.47	14.79	0.13	0.00	18.89	4.50	0.00	1.39	13.00	18.89	1,900	8.30	10.50	S.C	392743	2787436
92	0520-2	1.00	1.73	9.09	0.23	0.00	12.05	3.25	0.00	0.60	8.21	12.06	1,240	8.40	7.78	S.C	393311	2788811
93	0520-3	0.50	1.48	14.49	0.13	0.00	16.60	4.25	0.00	0.33	12.01	16.59	1,670	8.30	14.56	S.C	392633	2790896
94	0520-4	1.00	0.99	14.49	0.13	0.00	16.61	4.00	0.00	1.39	11.22	16.61	1,650	8.00	14.53	S.C	392389	2791568
95	0520-6	0.80	1.97	9.57	0.13	0.00	12.47	4.44	1.00	0.37	6.40	12.21	1,250	8.50	8.13	S.C	392189	2794838
96	0520-9	0.50	2.22	3.09	0.26	0.00	6.07	2.85	0.00	0.23	3.02	6.10	614	7.90	2.65	S.C	395160	2795217
97	0523-1	0.25	1.97	3.00	0.26	0.00	5.48	2.00	0.00	0.50	3.02	5.52	366	8.10	2.85	S.C	396315	2794333
98	0523-2	0.75	2.22	2.70	0.23	0.00	5.90	2.10	0.00	0.10	3.69	5.89	603	8.10	2.22	S.C	397210	2795304
99	0520-8						8.57					6.45	852	7.36	8.08		393719	2795780
100	0518-10						16.45					21.65	1,650	8.50	9.71		398358	2781082
Ave.		2.06	5.96	18.74	0.31	0.01	26.67	3.99	0.09	4.23	18.60	26.49	2,740	7.82	9.63			

Note S.C : Sodium Chloride, M.B : Magnesium Bicarbonate, M.C : Magnesium Chloride  
S.B : Sodium Bicarbonate, S.S : Sodium Sulfate



**VOLUME THREE : APPENDICES**

**APPENDIX-5: AGRICULTURE SECTOR**



5.1. Summary of Experimental Works on Vegetables of UNDP/FAO

5.1.1. Open Field Trials

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Local Code	Variety	Irrigation	Sowing			Harvesting			Yield			Remarks			
				Planting interval	Date	Method	Start after Sowing	Start Date	End Date	Days in Field	1st	2nd		3rd	Total	
Comparison Varieties	92-217H	Jeppu Globe	furrow	7X5.0cm	13-Aug-82	transplant	18-Sep-82	11	10	74	48.90	37.80	44.20	130.90	1.63 mean weight 1.59 kg/head	
	92-217D	Leo	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	49	0	123	34.60	38.50	41.50	114.60	3.16 mean weight 1.40 kg/head	
Dhaha	92-118 H	Phoenix	furrow	7X5.0cm	15-Sep-82	transplant	27-Oct-82	42	16	84	53.18	55.99	103.97	297.14	5.27 mean weight kg/head=1.211	
	92-118 D	Chivo	furrow	7X5.0cm	15-Sep-82	transplant	27-Oct-82	42	16	84	52.42	55.77	56.32	180.51	3.20 mean weight kg/head=1.211	
Hamulayeh	92-119 H	Salam	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	31	10	89	69.97	59.80	54.35	184.21	3.77 mean weight kg/head=1.253	
	92-119 D	Express Cross 60	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	31	10	89	56.60	48.70	54.90	160.20	3.98 mean weight kg/head=1.214	
Dhaha	92-219 H	White Baron	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	31	10	89	62.80	57.29	67.00	187.00	3.19 mean weight kg/head=1.274	
	92-219 D	White Baron	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	31	10	89	48.10	67.50	67.00	182.60	4.33 mean weight kg/head=1.071	
Dhaha	92-220 H	Meynu	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	32	10	71	31.90	21.69	34.90	88.40	2.55 mean weight kg/head=0.932	
	92-220 D	Meynu	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	32	10	71	40.40	17.70	15.30	73.40	1.48 mean weight kg/head=0.651	
Hamulayeh	92-221 H	Tropical 45	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	32	10	66	64	50.40	11.00	16.60	79.40	1.09 mean weight kg/head=0.466
	92-221 D	Tropical 45	furrow	7X5.0cm	18-Aug-82	transplant	18-Sep-82	32	10	66	44	16.40	26.20	15.25	57.95	1.61 mean weight kg/head=0.690
Hamulayeh	92-222 H	White Cornasa	furrow	7X5.0cm	18-Aug-82	transplant	9-Sep-82	22	12	100	29.10	29.20	18.20	76.50	2.12 mean weight kg/head=0.922	
	92-222 D	White Cornasa	furrow	7X5.0cm	18-Aug-82	transplant	9-Sep-82	22	12	100	35.40	23.80	35.20	94.40	2.34 mean weight kg/head=0.945	
Hamulayeh	92-223 H	White Baron	furrow	7X5.0cm	18-Aug-82	transplant	26-Oct-82	44	10	57	29.25	32.26	46.50	110.01	1.70 mean weight kg/head=0.644	
	92-223 D	White Baron	furrow	7X5.0cm	18-Aug-82	transplant	26-Oct-82	44	10	57	18.03	23.29	38.70	120.01	1.13 mean weight kg/head=0.422	
Hamulayeh	92-224 H	Tropical 55	furrow	7X5.0cm	18-Aug-82	transplant	26-Oct-82	44	10	57	27.80	32.94	124.50	185.24	1.55 mean weight kg/head=0.599	
	92-224 D	Tropical 55	furrow	7X5.0cm	18-Aug-82	transplant	26-Oct-82	44	10	57	38.86	36.36	124.50	169.72	1.36 mean weight kg/head=0.533	
Hamulayeh	92-225 H	Meynu	furrow	7X5.0cm	18-Aug-82	transplant	26-Oct-82	44	10	31	31.00	44.50	31.20	106.70	5.26 premature	
	92-225 D	Meynu	furrow	7X5.0cm	18-Aug-82	transplant	26-Oct-82	44	10	31	41.60	48.10	46.00	135.70	3.76	
Hamulayeh	92-226 H	Holder	furrow	7X5.0cm	18-Aug-82	transplant	30-Sep-82	35	18	26	42.90	31.45	59.45	140.80	3.91	
	92-226 D	Holder	furrow	7X5.0cm	18-Aug-82	transplant	30-Sep-82	35	18	26	27.55	24.50	36.90	88.95	1.82	
Hamulayeh	92-227 H	Alamo	furrow	7X5.0cm	18-Aug-82	transplant	30-Sep-82	35	18	23	69.50	53.50	37.50	176.00	15.39	
	92-227 D	Alamo	furrow	7X5.0cm	18-Aug-82	transplant	30-Sep-82	35	18	23	83.00	82.00	58.00	268.00	30.08	
Hamulayeh	92-228 H	Santa Cruz Kada	furrow	7X5.0cm	18-Aug-82	transplant	17-Oct-82	27	20	23	86.00	71.50	68.80	266.30	20.10	
	92-228 D	Santa Cruz Kada	furrow	7X5.0cm	18-Aug-82	transplant	17-Oct-82	27	20	23	81.50	85.00	87.50	254.00	23.91	
Hamulayeh	92-229 H	Fontaine	furrow	7X5.0cm	18-Aug-82	transplant	13-Nov-82	39	24	19	38.00	40.00	36.00	114.00	3.17	
	92-229 D	Fontaine	furrow	7X5.0cm	18-Aug-82	transplant	13-Nov-82	39	24	19	35.00	29.00	32.00	97.00	2.69	
Hamulayeh	92-230 H	Philo Bell	furrow	7X5.0cm	25-Mar-83	direct	3-Nov-82	30	12	123	4.00	6.50	10.50	10.50	0.91 each yield per replicate	
	92-230 D	Philo Bell	furrow	7X5.0cm	25-Mar-83	direct	3-Nov-82	30	12	123	4.00	31.00	25.00	60.00	0.53 each yield per replicate	
Hamulayeh	92-231 H	California Wonder	furrow	7X5.0cm	2-Mar-83	direct	2-Jun-83	7	104	108	118	4.00	8.00	8.00	0.07 each yield per replicate	
	92-231 D	California Wonder	furrow	7X5.0cm	2-Mar-83	direct	2-Jun-83	7	104	108	118	38.50	8.00	4.00	50.50	0.45 each yield per replicate
Hamulayeh	92-232 H	Alamo	furrow	7X5.0cm	2-Mar-83	direct	3-Jul-83	26	123	123	58.50	4.50	20.50	83.50	0.74 each yield per replicate	
	92-232 D	Alamo	furrow	7X5.0cm	2-Mar-83	direct	3-Jul-83	26	123	123	54.00	102.50	41.50	218.00	2.12 mean weight kg/head=1.25	
Dhaha	92-233 H	Charleston Grey	furrow	7X5.0cm	1-Mar-83	direct	12-Jun-83	12	103	103	64.50	71.00	39.00	174.50	1.58 mean weight kg/head=1.24	
	92-233 D	Charleston Grey	furrow	7X5.0cm	1-Mar-83	direct	12-Jun-83	12	103	103	64.00	78.50	62.00	204.50	1.81 mean weight kg/head=1.676	
Dhaha	92-234 H	No. 125	furrow	7X5.0cm	1-Mar-83	direct	12-Jun-83	12	103	103	56.00	55.50	100.00	209.50	1.86 mean weight kg/head=1.6	
	92-234 D	No. 125	furrow	7X5.0cm	1-Mar-83	direct	12-Jun-83	12	103	103	61.00	67.50	39.50	170.00	1.97 mean weight kg/head=1.95	
Dhaha	92-235 H	No. 5 New Baby	furrow	7X5.0cm	1-Mar-83	direct	12-Jun-83	12	103	91	33.00	98.00	174.50	310.50	2.76 mean weight kg/head=2.27	
	92-235 D	No. 5 New Baby	furrow	7X5.0cm	1-Mar-83	direct	12-Jun-83	12	103	91	38.00	70.00	104.00	244.00	2.17 mean weight kg/head=2.23	
Hamulayeh	92-236 H	Armas	furrow	7X5.0cm	27-Mar-83	direct	11-Jul-83	30	106	106	31.30	44.40	54.20	130.00	1.44	
	92-236 D	Armas	furrow	7X5.0cm	27-Mar-83	direct	11-Jul-83	30	106	106	23.60	34.60	34.30	92.50	1.09	
Hamulayeh	92-237 H	Wonderful King	furrow	7X5.0cm	27-Mar-83	direct	11-Jul-83	30	106	106	70.20	53.70	69.50	193.40	2.15	
	92-237 D	Wonderful King	furrow	7X5.0cm	27-Mar-83	direct	11-Jul-83	30	106	106	38.50	30.00	28.00	96.50	0.83 mean weight kg/head=1.14	
Dhaha	92-238 H	Armas	furrow	7X5.0cm	26-Mar-83	direct	29-Jun-83	34	95	95	49.25	16.00	30.00	95.25	1.06 mean weight kg/head=0.98	
	92-238 D	Armas	furrow	7X5.0cm	26-Mar-83	direct	29-Jun-83	34	95	95	27.50	27.50	39.00	94.00	1.04 mean weight kg/head=1.119	
Hamulayeh	92-239 H	Armas	furrow	7X5.0cm	26-Mar-83	direct	29-Jun-83	34	95	95	51.50	65.50	49.00	166.00	1.88 mean weight kg/head=1.531	
	92-239 D	Armas	furrow	7X5.0cm	26-Mar-83	direct	29-Jun-83	34	95	95	13.10	22.60	15.50	51.20	1.14	
Dhaha	92-240 H	Shenode Red Wonder	furrow	7X5.0cm	23-Feb-83	direct	16-Jul-83	76	143	143	13.10	16.90	15.05	45.05	0.96	
	92-240 D	Shenode Red Wonder	furrow	7X5.0cm	23-Feb-83	direct	16-Jul-83	76	143	143	14.50	15.40	18.00	47.90	1.09	
Hamulayeh	92-241 H	Shenode No.5	furrow	7X5.0cm	23-Feb-83	direct	16-Jul-83	80	143	143	9.70	17.90	15.10	42.70	0.95	
	92-241 D	Shenode No.5	furrow	7X5.0cm	23-Feb-83	direct	16-Jul-83	80	143	143	9.70	17.90	15.10	42.70	0.95	
Dhaha	92-242 H	Shenode Plus Savant	furrow	7X5.0cm	15-Feb-83	direct	6-Aug-83	109	172	172	46.60	36.10	49.25	131.95	2.93	
	92-242 D	Shenode Plus Savant	furrow	7X5.0cm	15-Feb-83	direct	6-Aug-83	109	172	172	18.95	24.50	28.85	72.30	1.60	
Dhaha	92-243 H	Shenode Red Wonder	furrow	7X5.0cm	15-Feb-83	direct	6-Aug-83	109	172	172	25.45	25.65	33.90	85.00	1.88	
	92-243 D	Shenode Red Wonder	furrow	7X5.0cm	15-Feb-83	direct	6-Aug-83	109	172	172	18.95	19.00	34.80	62.75	2.06	

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Items	Trial Code	Crops	Variety	Irrigation	Sowing			Harvesting			Yield				Remarks						
					Planting interval	Date	Method	Transplanted Date	Days Nursery	Start after Sowing	Star Date	End Date	Days	Total Growing Period		Days in Field	1st	2nd	3rd	Total	Kg/m <sup>2</sup>
Comparison among Sowing Dates	9-2-86 D	Musik Melon (winter crop)	Crimson	furrow	75X50cm	14-Feb-83	direct				60	16-Apr-83	14-Jun-83	59	119	119	11.25	6.80	8.20	26.25	0.27
					75X50cm	14-Feb-83	direct			60	16-Apr-83	14-Jun-83	59	119	119	7.25	7.85	7.25	22.35	0.50	
					75X50cm	14-Feb-83	direct			60	16-Apr-83	14-Jun-83	59	119	119	11.10	8.60	9.45	29.15	0.65	
					75X50cm	14-Feb-83	direct			60	16-Apr-83	14-Jun-83	59	119	119	6.80	9.00	6.95	22.75	0.50	
					240X50cm	2-Mar-83	direct			97	7-Jun-83	26-Jun-83	21	105	105	19.20	11.00	40.00	70.20	0.62	
	9-2-89 H	Musik Melon (summer crop)	Crimson	furrow	240X50cm	2-Mar-83	direct				66	7-Jun-83	26-Jun-83	21	87	87	33.50	31.20	55.00	119.50	1.06
					240X50cm	2-Mar-83	direct			104	14-Jun-83	18-Jul-83	34	138	138	10.40	15.20	8.70	34.30	0.38	
					240X50cm	2-Mar-83	direct			91	14-Jun-83	18-Jul-83	34	125	125	15.00	20.30	24.10	59.40	0.63	
					240X50cm	2-Mar-83	direct			77	14-Jun-83	18-Jul-83	34	107	107	32.70	19.90	29.80	82.40	0.68	
					240X50cm	2-Mar-83	direct			63	27-Apr-83	18-Jul-83	80	143	143	14.50	19.10	18.30	51.90	1.15	
Comparison among Sowing Dates	9-2-89 Z	Okra (summer crop)	Bherde Pusa Sawan	furrow	75X50cm	2-Mar-83	direct				56	27-Apr-83	18-Jul-83	80	136	136	13.35	18.90	17.70	49.95	1.11
					75X50cm	2-Mar-83	direct			51	5-May-83	16-Jul-83	73	123	123	15.75	18.95	17.90	52.60	1.17	
					75X50cm	2-Mar-83	direct			63	19-Apr-83	6-Aug-83	109	172	172	24.35	26.95	20.55	71.85	1.59	
					75X50cm	2-Mar-83	direct			60	30-Apr-83	6-Aug-83	98	158	158	20.25	18.05	15.50	53.80	1.19	
					75X50cm	2-Mar-83	direct			53	7-May-83	6-Aug-83	91	144	144	18.95	18.50	17.50	54.95	1.23	
	9-2-89 Z	Spinach (1st sowing)	Pacific	basin	2.5X3.3m	3-Oct-82	direct				50	22-Nov-82	18-Feb-83	86	136	136	132.50	147.50	143.00	423.00	4.43
					2.5X3.3m	3-Oct-82	direct			50	22-Nov-82	18-Feb-83	86	136	136	135.50	139.00	127.50	402.00	4.02	
					2.5X3.3m	3-Oct-82	direct			50	22-Nov-82	18-Feb-83	86	136	136	169.00	180.00	170.00	519.00	5.19	
					2.5X3.3m	1-Nov-82	direct			47	18-Dec-82	1-Mar-83	75	120	120	169.60	175.60	171.80	517.00	5.17	
					2.5X3.3m	1-Nov-82	direct			47	18-Dec-82	1-Mar-83	75	120	120	167.50	171.50	154.70	493.70	4.93	
Comparison among Sowing Dates	9-2-89 H	Squash (2nd sowing)	Pacific	basin	2.5X3.3m	30-Nov-82	direct				79	17-Feb-83	21-Mar-83	32	111	111	106.00	93.00	101.00	300.00	3.00
					2.5X3.3m	30-Nov-82	direct			79	17-Feb-83	21-Mar-83	32	111	111	44.00	60.00	62.50	166.50	1.69	
					2.5X3.3m	30-Nov-82	direct			79	17-Feb-83	21-Mar-83	32	111	111	111.50	86.50	87.50	285.50	2.89	
					2.5X3.3m	30-Nov-82	direct			57	26-Sep-82	11-Dec-82	74	111	111				41.40	3.48	
					2.5X3.3m	22-Aug-82	direct			35	26-Sep-82	11-Dec-82	76	111	111				30.20	2.51	
	9-2-89 H	Squash (winter crop)	Lila	furrow	150X50cm	22-Aug-82	direct				35	26-Sep-82	11-Dec-82	76	111	111				31.40	2.61
					150X50cm	22-Aug-82	direct			37	26-Sep-82	11-Dec-82	74	111	111				28.00	2.33	
					150X50cm	22-Aug-82	direct			37	26-Sep-82	11-Dec-82	74	111	111				31.40	2.61	
					150X50cm	22-Aug-82	direct			35	26-Sep-82	11-Dec-82	76	111	111				35.40	2.94	
					150X50cm	22-Aug-82	direct			37	26-Sep-82	11-Dec-82	74	111	111				31.40	2.61	
Comparison among Sowing Dates	9-2-89 H	Cucumber (winter crop)	Best Alpha	furrow	150X50cm	22-Aug-82	direct				39	30-Sep-82	11-Dec-82	72	111	111				21.90	1.82
					150X50cm	22-Aug-82	direct			39	30-Sep-82	11-Dec-82	72	111	111				5.50	0.46	
					150X50cm	22-Aug-82	direct			39	30-Sep-82	11-Dec-82	72	111	111				5.50	0.46	
					150X50cm	20-Sep-82	direct			62	21-Nov-82	11-Dec-82	20	82	82				2.50	0.21	
					150X50cm	22-Aug-82	direct			76	5-Dec-82	11-Dec-82	6	82	82				1.70	0.14	
	9-2-89 H	Cucumber (winter crop)	Jordan F1	furrow	150X50cm	22-Aug-82	direct				66	27-Oct-82	11-Dec-82	45	111	111				14.80	1.23
					150X50cm	22-Aug-82	direct			62	27-Oct-82	11-Dec-82	49	111	111				26.40	2.19	
					150X50cm	22-Aug-82	direct			72	2-Nov-82	11-Dec-82	39	111	111				22.20	1.85	
					150X50cm	22-Aug-82	direct			66	27-Oct-82	11-Dec-82	45	111	111				19.20	1.60	
					150X50cm	22-Aug-82	direct			66	27-Oct-82	11-Dec-82	45	111	111				29.40	2.44	
Comparison among Sowing Dates	9-2-89 H	Cucumber (winter crop)	Hydras	furrow	150X50cm	22-Aug-82	direct				66	27-Oct-82	11-Dec-82	45	111	111				14.70	1.22
					150X50cm	22-Aug-82	direct			66	27-Oct-82	11-Dec-82	45	111	111				24.70	2.03	
					150X50cm	22-Aug-82	direct			66	27-Oct-82	11-Dec-82	45	111	111				28.50	2.45	
					150X50cm	22-Aug-82	direct			59	20-Oct-82	11-Dec-82	52	111	111				31.50	2.60	
					150X50cm	22-Aug-82	direct			59	20-Oct-82	11-Dec-82	52	111	111				28.80	2.39	
	9-2-89 H	Cucumber (winter crop)	XPH 1274	furrow	150X50cm	22-Aug-82	direct				62	20-Oct-82	11-Dec-82	52	111	111				29.80	2.48
					150X50cm	22-Aug-82	direct			62	20-Oct-82	11-Dec-82	52	111	111				24.90	2.07	
					150X50cm	22-Aug-82	direct			62	20-Oct-82	11-Dec-82	52	111	111				24.90	2.07	
					150X50cm	22-Aug-82	direct			62	20-Oct-82	11-Dec-82	52	111	111				24.90	2.07	
					150X50cm	22-Aug-82	direct			62	20-Oct-82	11-Dec-82	52	111	111				24.90	2.07	

(continue)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Trial Code	Crops	Variety	Irrigation	Sowing		Harvesting		Yield				Remarks						
					Planting interval	Date	Method	Transplanted Date	Days Nursery	Start Date	End Date	Days		Total	1st	2nd	3rd	Total	Kg/m <sup>2</sup>
W-2-33 R		Cauliflower, winter crop	Kama F1	Irrig	3-Oct-82	transplant	22-Nov-82	50	96	7-Jan-83	29-Jan-83	22	114	68	7.60	2.53	weight kg/head = 1.10		
			OH 2770		3-Oct-82	transplant	22-Nov-82	50	123	3-Feb-83	21-Feb-83	18	141	91	11.20	3.72	weight kg/head = 1.30		
			OH 2771		3-Oct-82	transplant	22-Nov-82	50											too early flowering
			OH 2771		3-Oct-82	transplant	22-Nov-82	50											too early flowering
			Master		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.50
			Christmas White		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 2.00
			ROB 1851		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 2.00
			Glacier		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 2.00
			Snow Flower		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.00
			Snow King		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.00
			Moon Bling		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.40
			Snow White		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.40
			Snow Crown		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 0.60
			Erdur early		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.50
			901 Pengshan extra early		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.50
			345 Snow Crown		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 1.50
			Snow Ball		3-Oct-82	transplant	22-Nov-82	50											weight kg/head = 0.60
9-2-33 H		Cabbage, winter crop	White Baron	Irrig	21-Oct-82	transplant	13-Nov-82	23	100	29-Jan-83	17-Feb-83	19	139	96	20.10	6.68	mean head weight (kg) = 2.50		
			Green coronet		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	14-Mar-83	56	144	121	24.50	8.15	mean head weight (kg) = 3.05		
			Large Early Drumhead		21-Oct-82	transplant	13-Nov-82	23	100	29-Jan-83	29-Jan-83	0	100	77	26.70	8.89	mean head weight (kg) = 3.00		
			Hercules		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	23.30	7.75	mean head weight (kg) = 2.90		
			Alba No.70		21-Oct-82	transplant	13-Nov-82	23	100	29-Jan-83	29-Jan-83	0	100	77	16.30	6.42	mean head weight (kg) = 2.0		
			Utopia		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	18.00	5.99	mean head weight (kg) = 2.25		
			Utah		21-Oct-82	transplant	13-Nov-82	23	81	10-Jan-83	29-Jan-83	19	100	77	14.10	4.69	mean head weight (kg) = 1.75		
			Harvester Queen		21-Oct-82	transplant	13-Nov-82	23	81	10-Jan-83	6-Feb-83	27	108	85	29.50	9.81	mean head weight (kg) = 3.65		
			Compassador		21-Oct-82	transplant	13-Nov-82	23	81	10-Jan-83	10-Jan-83	0	81	58	8.00	2.65	mean head weight (kg) = 1.10		
			Pak-Rate		21-Oct-82	transplant	13-Nov-82	23	190	29-Jan-83	17-Feb-83	19	119	96	21.80	7.25	mean head weight (kg) = 2.70		
			Big Chopper		21-Oct-82	transplant	13-Nov-82	23	81	10-Jan-83	17-Feb-83	12	93	70	16.00	5.32	mean head weight (kg) = 2.10		
			OH 2481		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	18.70	6.22	mean head weight (kg) = 2.50		
			OH 2528		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	19.70	6.55	mean head weight (kg) = 2.45		
			Gloria F1		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	20.60	6.85	mean head weight (kg) = 2.65		
			Dolan		21-Oct-82	transplant	13-Nov-82	23	81	10-Jan-83	10-Jan-83	0	81	58	6.70	2.23	mean head weight (kg) = .95		
			Ray F1		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	16.50	5.49	mean head weight (kg) = 2.05		
			Kanbu F1		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	29-Jan-83	12	100	77	15.00	5.05	mean head weight (kg) = 1.85		
			Rosin F1		21-Oct-82	transplant	13-Nov-82	23	93	22-Jan-83	29-Jan-83	7	100	77	15.20	5.05	mean head weight (kg) = 1.90		
			W.S. Cross		21-Oct-82	transplant	13-Nov-82	23	108	24-Jan-83	29-Jan-83	5	97	74	19.30	6.42	mean head weight (kg) = 2.40		
			Tokyo Prince		21-Oct-82	transplant	13-Nov-82	23	108	24-Jan-83	29-Jan-83	5	97	74	19.30	6.42	mean head weight (kg) = 2.40		
			Singawa		21-Oct-82	transplant	13-Nov-82	23	88	17-Jan-83	17-Jan-83	0	88	65	15.40	5.12	mean head weight (kg) = 1.90		
			Emshuizen Glory		21-Oct-82	transplant	13-Nov-82	23	100	29-Jan-83	26-Feb-83	28	128	105	15.60	5.19	mean head weight (kg) = 1.65		
			Round Head		21-Oct-82	transplant	13-Nov-82	23	93	22-Jan-83	6-Feb-83	15	108	85	11.30	3.76	mean head weight (kg) = 1.40		
			83 Market Prince		21-Oct-82	transplant	13-Nov-82	23	100	29-Jan-83	29-Jan-83	0	100	77	10.40	3.46	mean head weight (kg) = 1.30		
			Mans		21-Oct-82	transplant	13-Nov-82	23	97	26-Jan-83	26-Feb-83	31	128	105	13.20	4.39	mean head weight (kg) = 1.65		
			Gold Medal		21-Oct-82	transplant	13-Nov-82	23	100	29-Jan-83	26-Feb-83	8	108	85	13.60	4.52	mean head weight (kg) = 3.05		
			Summer-Autum		21-Oct-82	transplant	13-Nov-82	23	97	26-Jan-83	6-Feb-83	8	108	85	12.60	4.19	mean head weight (kg) = 1.55		
			Chieftain Savoy		21-Oct-82	transplant	13-Nov-82	23	69	29-Dec-82	2-Jan-83	4	73	56	27.00	8.98	mean head weight (kg) = 3.35		
			60 days WR F1		21-Oct-82	transplant	7-Nov-82	17	69	29-Dec-82	2-Jan-83	4	73	56	13.90	4.62	mean head weight (kg) = 1.70		
			Koahla		21-Oct-82	transplant	7-Nov-82	17	69	29-Dec-82	2-Jan-83	4	73	56	22.10	7.33	mean head weight (kg) = 2.75		
			Saladette		21-Oct-82	transplant	7-Nov-82	17	69	29-Dec-82	2-Jan-83	4	73	56	23.50	7.81	mean head weight (kg) = 2.90		
			Aroka Trompina		21-Oct-82	transplant	7-Nov-82	17	69	29-Dec-82	2-Jan-83	4	73	56	28.70	9.34	mean head weight (kg) = 3.55		

(continue 1)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Trial Code	Crops	Variety	Irrigation	Sowing			Harvesting			Yield			Remarks				
					Planting interval	Date	Method	Transplanted Date	Days Nursery	Start after Sowing	Start Date	End Date	Days		Total Growing Period	Total Days in Field	1st	2nd
Hammaniyah	9-2-35 H	Spinach winter crop	Wesely	rain	19-Oct-82	direct	19-Oct-82	0	121	121	121	5.50				5.50	Number of cutting = 1	
			Melody	rain	19-Oct-82	direct	19-Oct-82	0	126	126	126	15.50				15.50	7.75	Number of cutting = 3
			Avon	rain	19-Oct-82	direct	19-Oct-82	0	119	119	119	10.50				10.50	2.65	Number of cutting = 1
			America	rain	19-Oct-82	direct	19-Oct-82	0	102	102	102	3.40				3.40	1.70	Number of cutting = 1
			Fordhook	rain	19-Oct-82	direct	19-Oct-82	0	121	121	121	4.50				4.50	2.25	Number of cutting = 1
			Grant Stand	rain	19-Oct-82	direct	19-Oct-82	0	121	121	121	10.50				10.50	5.25	Number of cutting = 2
			High Peak	rain	19-Oct-82	direct	19-Oct-82	0	119	119	119	5.30				5.30	2.65	Number of cutting = 1
			Kent	rain	19-Oct-82	direct	19-Oct-82	0	126	126	126	10.70				10.70	5.35	Number of cutting = 2
			Pacific	rain	19-Oct-82	direct	19-Oct-82	0	119	119	119	6.20				6.20	3.10	Number of cutting = 1
			Marathon	rain	19-Oct-82	direct	19-Oct-82	0	119	119	119	4.00				4.00	2.00	Number of cutting = 1
			Orion	rain	19-Oct-82	direct	19-Oct-82	0	126	126	126	9.80				9.80	4.90	Number of cutting = 2
			Milouca	rain	19-Oct-82	direct	19-Oct-82	0	119	119	119	1.40				1.40	0.70	Number of cutting = 1
			Symphone FI RS	rain	27-Oct-82	direct	19-Oct-82	0	111	111	111	8.30				8.30	4.15	Number of cutting = 1
			Novoro R.S.	rain	27-Oct-82	direct	19-Oct-82	0	111	111	111	2.40				2.40	1.20	Number of cutting = 1
			Viroday	rain	27-Oct-82	direct	19-Oct-82	0	111	111	111	3.40				3.40	1.70	Number of cutting = 1
Hammaniyah	9-2-36 H	Radish winter crop	Daunt Thickskinned Noble	turrow	16-Nov-82	direct	16-Nov-82	0	91	91	91	8.50			8.50	4.25	Number of cutting = 1	
			Early 40 days	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	7.20			7.20	2.07		
			Everest 150	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	6.20			6.20	2.40		
			Dali Cross	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	3.40			3.40	1.13		
			Salada Mino	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	2.80			2.80	0.93		
			Tama Chivo	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	1.50			1.50	0.50		
			Chinese long white	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	6.90			6.90	2.30		
			Mine-wase-summer's venus No.3	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	2.10			2.10	0.70		
			Mimo vary	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	8.00			8.00	2.67		
			Pusa Roshani	turrow	4-Oct-82	direct	4-Oct-82	0	58	58	58	2.30			2.30	0.77		
			Bombay long white	turrow	4-Oct-82	direct	4-Oct-82	0	42	42	42	0.45			0.45	0.15		
			Bellano	turrow	4-Oct-82	direct	4-Oct-82	0	42	42	42	0.90			0.90	0.30		
			Susa Koris	turrow	4-Oct-82	direct	4-Oct-82	0	42	42	42	0.30			0.30	0.10		
			Cherry Belle	turrow	4-Oct-82	direct	4-Oct-82	0	42	42	42	6.20			6.20	2.07		
			Novoro R.S.	turrow	27-Oct-82	direct	27-Oct-82	0	31	31	31	2.50			2.50	0.83		
French breakfast	turrow	27-Oct-82	direct	27-Oct-82	0	31	31	31	5.00			5.00	1.67	2 lines per furrow will be good				
Hammaniyah	9-2-37 H	Turnip winter crop	Market Express	turrow	20-Oct-82	direct	20-Oct-82	26	82	82	82	6.00			6.00	2.00		
			Tokyo Top	turrow	20-Oct-82	direct	20-Oct-82	26	82	82	9.00			9.00	3.00			
			Purple Top white globe's S	turrow	20-Oct-82	direct	20-Oct-82	26	82	82	10.20			10.20	3.40			
			Purple Top white globe	turrow	20-Oct-82	direct	20-Oct-82	26	82	82	9.40			9.40	3.15			
			Royal Crown	turrow	20-Oct-82	direct	20-Oct-82	26	82	82	11.00			11.00	3.57			
			Royal Crown-2	turrow	20-Oct-82	direct	20-Oct-82	26	82	82	10.70			10.70	3.57			
			Purple Top white globe 17109	turrow	16-Nov-82	direct	16-Nov-82	19	103	103	5.90			5.90	1.96			
			Snow Cap	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	4.50			4.50	1.50			
			Honey Moon	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	3.00			3.00	1.00			
			Moon Bean	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	4.15			4.15	1.38			
			Jubilee	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	8.90			8.90	2.96			
			Banner G.H. 1901	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	4.40			4.40	1.46			
			G.H. 1901	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	2.44			2.44	0.80			
			2377 Golden Hybrid	turrow	27-Oct-82	direct	27-Oct-82	65	122	122	4.90			4.90	1.63			
			Debut	turrow	27-Oct-82	direct	27-Oct-82	65	122	122								

(continue)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Inal Code	Crops	Variety	Irrigation	Sowing		Harvesting		Yield			Remarks				
					Planting interval	Method	Transplanted Date	Days Nursery	Start after Season	Start Date	End Date		Days	Total Growing Period	Total Days in Field	1st
Hamamiyah	W-537 H	Carrot winter crop	Mare	turrow	15-Nov-82	direct	24-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	8.00	2.97	2 lines per furrow will be good
			Kinko Cross 6	15-Nov-82	direct	24-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	4.80	1.60		
			Kinko Cross 8	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	7.70	2.57		
			Kuroda Chantenay 8	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	9.40	3.15		
			Kuroda Chantenay N.V.	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	8.70	2.90		
			Kinko Chantenay 8	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	7.70	2.57		
			Kinko Chantenay 8	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	7.70	2.57		
			Royal Cross	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	10.00	3.30		
			Tanaco	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	5.80	1.93		
			Tulaco	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	11.10	3.70		
			Munco	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	9.60	3.20		
			Friend's Glory	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	5.10	1.70		
			Munich Express	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	6.00	2.00		
			Feona Banta	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	7.20	2.40		
			Indo	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	6.40	2.13		
			Rondo	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	6.10	2.03		
			Eoyal Chantenay	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	9.70	3.23		
			Royal Danvers	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	8.70	2.90		
			Danvers 125	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	10.20	3.40		
			King Chantenay	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	9.80	3.27		
Orwarf	15-Nov-82	direct	27-Feb-83	25	79	2-Feb-83	27-Feb-83	104	104	8.80	2.93					
Tanaco FI	27-Nov-82	direct	27-Feb-83	25	67	2-Feb-83	27-Feb-83	92	92	8.20	2.73					
Hacore	27-Nov-82	direct	27-Feb-83	25	67	2-Feb-83	27-Feb-83	92	92	9.40	3.13					
Forno	27-Nov-82	direct	27-Feb-83	25	67	2-Feb-83	27-Feb-83	92	92	6.40	2.13					
Gandje FI	27-Nov-82	direct	27-Feb-83	25	67	2-Feb-83	27-Feb-83	92	92	10.00	3.33					
Nantes Superior 12102	27-Nov-82	direct	27-Feb-83	25	67	2-Feb-83	27-Feb-83	92	92	8.50	2.83					
Nantes Strong Top 1265	27-Nov-82	direct	27-Feb-83	25	100	7-Mar-83	7-Mar-83	100	100	6.60	2.20					
Chantenay	15-Nov-82	direct	27-Feb-83	25	100	7-Mar-83	7-Mar-83	100	100	5.70	1.90					
Defiant	9-Nov-82	direct	6-Mar-83	0	117	6-Mar-83	6-Mar-83	117	117	5.60	1.87					
Red Beet	9-Nov-82	direct	6-Mar-83	0	117	6-Mar-83	6-Mar-83	117	117	13.10	4.37					
winter crop	9-24-82 H	King Crown	turrow	15-Sep-82	transplant	10-Oct-82	25	94	18-Dec-82	18-Dec-82	69	69	2.90	0.97	Number of heads/ average kg = 400/6.11	
Lettuce	9-24-82 H	Queen Crown	turrow	15-Sep-82	transplant	10-Oct-82	25	94	18-Dec-82	18-Dec-82	69	69	42.50	2.34	Number of heads/ average kg = 85/5.00	
winter crop	Dhaud	Paris White	75x25cm	15-Sep-82	10-Oct-82	25	94	18-Dec-82	18-Dec-82	69	69	2.34	0.97	Number of heads/ average kg = 400/6.11		
Romaine		15-Sep-82	10-Oct-82	25	94	18-Dec-82	18-Dec-82	69	69	2.34	0.97	Number of heads/ average kg = 400/6.11				
King Crown		1-Oct-82	27-Oct-82	26	106	15-Jan-83	26-Jan-83	117	117	91	91	73.70	3.88	Number of heads/ average kg = 1000/7.37		
Queen Crown		1-Oct-82	27-Oct-82	26	106	15-Jan-83	5-Feb-83	11	127	101	101	26.50	1.39	Number of heads/ average kg = 500/4.73		
Great Lake		1-Oct-82	27-Oct-82	26	106	15-Jan-83	5-Feb-83	21	127	101	101	30.00	4.23	Number of heads/ average kg = 500/4.73		
Culmar		1-Oct-82	27-Oct-82	26	106	15-Jan-83	5-Feb-83	21	127	101	101	62.50	3.50	Number of heads/ average kg = 700/7.01		
Great Lake 659		24-Oct-82	24-Oct-82	32	108	9-Feb-83	17-Feb-83	14	116	84	84	27.50	1.19	Number of heads/ average kg = 520/6.33		
Great Lake 118		24-Oct-82	24-Oct-82	32	104	5-Feb-83	17-Feb-83	12	116	84	84	31.50	1.66	Number of heads/ average kg = 670/4.70		
Romato Ingerelli		24-Oct-82	24-Oct-82	32	104	5-Feb-83	17-Feb-83	12	116	84	84	27.00	1.42	Number of heads/ average kg = 880/3.07		
Semie Nero		24-Oct-82	24-Oct-82	32	104	5-Feb-83	17-Feb-83	10	104	72	72	24.50	1.29	Number of heads/ average kg = 600/3.71		
Dalton		24-Oct-82	24-Oct-82	32	104	5-Feb-83	17-Feb-83	0	104	72	72	38.50	2.03	Number of heads/ average kg = 900/4.28		
Vande d'incervo		24-Oct-82	24-Oct-82	32	4477	26-Jan-95	5-Feb-83	4373	104	104	104	6.00	0.31	Number of heads/ average kg = 210/2.85		
Bionda Degli Crociati		24-Oct-82	24-Oct-82	32	4477	26-Jan-95	5-Feb-83	4373	104	104	104	6.00	0.31	Number of heads/ average kg = 210/2.85		

(continue)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Tidal Code	Crops	Variety	Irrigation	Sowing		Newark		Start after Sowing	Harvesting		Total Days in Field	Yield			Remarks
					Planting interval	Method	Date	Transplanted Date		Days Nursery	Start Date		End Date	1st	2nd	
9-2-46 Z Dhad		Pea winter crop	Progress No.5	furrow	100X40cm	5-Oct-82	direct	21	113	26-Jan-83	17-Feb-83	135	0.80	0.10	0.10	0.80
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.40	0.05	0.05	0.40			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.80	0.10	0.10	0.80			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	2.20	0.20	0.20	2.20			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	1.40	0.18	0.18	1.40			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	3.80	0.50	0.50	3.80			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.60	0.08	0.08	0.60			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.30	0.04	0.04	0.30			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.30	0.04	0.04	0.30			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.80	0.10	0.10	0.80			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	2.00	0.26	0.26	2.00			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	2.50	0.33	0.33	2.50			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.30	0.04	0.04	0.30			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	2.90	0.38	0.38	2.90			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	4.00	0.53	0.53	4.00			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	1.50	0.20	0.20	1.50			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	2.70	0.39	0.39	2.70			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	2.50	0.33	0.33	2.50			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	1.60	0.21	0.21	1.60			
			5-Oct-82			113	26-Jan-83	17-Feb-83	135	0.00	0.00	0.00	0.00			
5-Oct-82	113	26-Jan-83	17-Feb-83	135	0.00	0.00	0.00	0.00								
5-Oct-82	113	26-Jan-83	17-Feb-83	135	1.60	0.21	0.21	1.60								
5-Oct-82	113	26-Jan-83	17-Feb-83	135	4.00	0.53	0.53	4.00								
9-2-46 Z Dhad		Dwarf Bean winter crop	Kentucky Wonder	furrow	100X40cm	12-Sep-82	direct	27	80	1-Dec-82	11-Jan-83	121	3.80	0.50	0.50	3.80
			12-Sep-82			80	1-Dec-82	11-Jan-83	121	2.20	0.29	0.29	2.20			
			12-Sep-82			80	1-Dec-82	11-Jan-83	121	1.90	0.25	0.25	1.90			
			12-Sep-82			80	1-Dec-82	11-Jan-83	121	2.60	0.34	0.34	2.60			
			5-Oct-82			57	1-Dec-82	11-Jan-83	41	98	98	5.10	0.68	0.68	5.10	
			5-Oct-82			57	1-Dec-82	11-Jan-83	41	98	98	7.00	0.93	0.93	7.00	
			5-Oct-82			57	1-Dec-82	11-Jan-83	41	98	98	4.70	0.62	0.62	4.70	
			5-Oct-82			57	1-Dec-82	11-Jan-83	41	98	98	4.60	0.61	0.61	4.60	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	1.30	0.17	0.17	1.30	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	1.80	0.24	0.24	1.80	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	0.80	0.10	0.10	0.80	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	3.80	0.50	0.50	3.80	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	1.80	0.24	0.24	1.80	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	7.70	1.02	1.02	7.70	
			5-Oct-82			69	20-Nov-82	11-Jan-83	52	121	121	3.90	0.52	0.52	3.90	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	3.10	0.41	0.41	3.10	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	1.30	0.17	0.17	1.30	
			12-Sep-82			68	20-Nov-82	11-Jan-83	52	121	121	3.60	0.48	0.48	3.60	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	0.90	0.12	0.12	0.90	
			12-Sep-82			80	1-Dec-82	11-Jan-83	41	121	121	2.20	0.29	0.29	2.20	
12-Sep-82	68	20-Nov-82	11-Jan-83	52	121	121	9.45	1.26	1.26	9.45						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	2.70	0.36	0.36	2.70						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	3.42	0.45	0.45	3.42						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	1.10	0.14	0.14	1.10						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	0.20	0.02	0.02	0.20						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	0.20	0.02	0.02	0.20						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	0.30	0.04	0.04	0.30						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	1.00	0.13	0.13	1.00						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	1.30	0.17	0.17	1.30						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	1.00	0.13	0.13	1.00						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	0.60	0.08	0.08	0.60						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	1.70	0.22	0.22	1.70						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	1.13	0.15	0.15	1.13						
12-Sep-82	69	20-Nov-82	11-Jan-83	52	121	121	0.88	0.11	0.11	0.88						

(continued)



Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Tral Code	Crops	Variety	Irrigation	Planting interval	Sowing			Start after Sowing	Harvesting			Yield			Remarks	
						Date	Method	Threshplanted Date		Days Nursery	Start Date	End Date	Days	1st	2nd		3rd
9-2-80 H Hammanyah	9-2-80 H Hammanyah	Tomato long cycle crop	Ace 55 VF	trow	22-Sep-82	22-Sep-82	21-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	81.10	3.99	% virus = 83
			Emperor		22-Sep-82	22-Sep-82	21-Oct-82	31	137	6-Feb-83	8-May-83	91	228	197	64.40	7.14	% virus = 50
			Montelover 65/5		22-Sep-82	22-Sep-82	21-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	97.80	10.84	% virus = 16.6
			Straun B		22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	228	197	85.20	9.44	% virus = 33.3
			Sunfire		22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	109.50	12.11	% virus = 53.3
			Early Dawn		22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	112.15	12.43	% virus = 20
			Santa Cruz Kada		22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	118.50	13.13	% virus = 16.6
			Tropis TM-FNV		22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	228	197	84.10	8.88	% virus = 66.6
			OE2598		22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	121.40	13.46	% virus = 45.5
			OE2753		22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	91.30	10.12	% virus = 41.6
OE2754	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	228	197	73.10	8.10	% virus = 25.0				
OE2751	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	81.40	9.02	% virus = 57.0				
Cancon FI	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	97.30	10.78	% virus = 44.0				
President	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	228	197	75.70	8.59	% virus = 100				
Red Queen	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	107.30	11.89	% virus = 100				
Hope No.1	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	228	197	115.90	12.85	% virus = 33.0				
Master No.2	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	92.60	10.26	% virus = 37.5				
Santa Cruz Kada MSY 818	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	113.50	12.58	% virus = 11.0				
Maiglobe	22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	95.10	10.54	% virus = 33.0				
Pusa Ruby	22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	62.10	6.88	% virus = 20.0				
Baron	22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	106	228	197	88.90	9.85	% virus = 44.50				
American No.5	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	81	228	197	67.70	7.50	% virus = 50.0				
Roma VFR	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	230	199	72.50	8.04	% virus = 33.0				
145 VFN	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	91	230	199	67.30	7.46	% virus = 33.0				
Campana Hyh	22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	108	230	199	96.10	10.65	% virus = 55.5				
80 W 91	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	95	230	199	94.40	10.46	% virus = 47.5				
Centados	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	230	199	90.30	10.01	% virus = 57.0				
Burpee's Big Girl	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	230	199	89.00	9.86	% virus = 40.0				
Casici Mast	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	230	199	83.20	9.22	% virus = 16.6				
Barry Pak 7	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	85	240	199	79.40	8.80	% virus = 33.0				
Pakmar V1	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	240	199	62.90	6.97	% virus = 27.0				
Castelmar J	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	85	240	199	101.70	11.27	% virus = 32.0				
Hibb 980	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	240	199	89.10	9.88	% virus = 33.0				
351 Glory	22-Sep-82	22-Sep-82	23-Oct-82	31	147	16-Feb-83	8-May-83	85	240	199	100.50	11.14	% virus = 55.5				
No. 201	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	230	199	93.40	10.35	% virus = 36.0				
Admiral	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	230	199	77.20	8.56	% virus = 57.0				
Sunmer Primus	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	95	230	199	79.60	8.70	13.23				
Turnado	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	94	231	200	88.70	14.75					
OE 2420	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	94	231	200	76.10	12.65					
Marmasak Extra	22-Sep-82	22-Sep-82	23-Oct-82	31	137	6-Feb-83	8-May-83	94	231	200	80.20	13.83					
Puar VF TMV	22-Sep-82	22-Sep-82	23-Oct-82	31	155	24-Feb-83	11-May-83	76	231	200	131.50	21.86					
Santa Cruz Kada MSY 817	22-Sep-82	22-Sep-82	23-Oct-82	31	155	24-Feb-83	11-May-83	76	231	200	58.70	9.76					
Ox Heart	22-Sep-82	22-Sep-82	23-Oct-82	31	148	17-Feb-83	11-May-83	85	231	200	75.70	12.59					
L-401	22-Sep-82	22-Sep-82	23-Oct-82	31	148	17-Feb-83	11-May-83	85	231	200	81.50	13.55					
F-289	22-Sep-82	22-Sep-82	23-Oct-82	31	155	24-Feb-83	11-May-83	76	231	200	64.00	10.64					
Caracas	22-Sep-82	22-Sep-82	23-Oct-82	31	122	25-Jan-83	8-May-83	109	231	200	107.90	17.94					
Fera	22-Sep-82	22-Sep-82	23-Oct-82	31	148	17-Feb-83	11-May-83	85	231	200	93.70	15.58					
70 W 177	22-Sep-82	22-Sep-82	23-Oct-82	31	148	17-Feb-83	11-May-83	85	231	200	81.70	13.58					
Burpee's Big Boy	22-Sep-82	22-Sep-82	23-Oct-82	31	155	24-Feb-83	11-May-83	76	231	200	92.70	15.41					
Tropis VF	22-Sep-82	22-Sep-82	23-Oct-82	31	119	26-Feb-83	11-May-83	74	193	162	41.10	6.83					
NR 1426/79 TMC 5 F2	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	60.00	9.98					
Ficus TMC 2 VFM	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	42.10	7.00					
VA 1417/79 TMC 5 F2	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	68.00	11.31					
Tempo C2 VFF	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	68.15	11.33					
Marcu TMC2 VPSN	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	60.20	10.01					
Dombato TMC2 F2	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	81.00	13.47					
Hibb Tempo	22-Sep-82	22-Sep-82	30-Nov-82	31	155	3-Apr-83	11-May-83	38	193	162	53.50	8.85					
Pala Sotter 605	22-Sep-82	22-Sep-82	30-Nov-82	31	117	26-Feb-83	11-May-83	74	191	160	59.50	9.86					

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Tnal Code	Crops	Variety	Irrigation	Sowing		Transplanting		Harvesting		Yield			Remarks			
					Planting interval	Date	Method	Date	Start after sowing	Start Date	End Date	Days	Total		1st	2nd	3rd
Hamamayah	9-2-31 H	Pepper long cycle crop	05/556 (hot)	furrow	75X50cm	26-Sep-82	transplant	24-Nov-82	59	185	30-Mar-83	15-May-83	49	23	172	0.50	0.17
			008060 (seet)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	0.90	0.30
			THR 23 (medium hot)			26-Sep-82	transplant	24-Nov-82	59	185	30-Mar-83	15-May-83	46	231	172	2.50	0.83
			Constant Giant (sweet)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	3.40	1.13
			Long Slim (hot)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	1.70	0.57
			(sweet)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	2.20	0.73
			(sweet)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	1.90	0.60
			PVY (hot)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	1.30	0.50
			NP 46A (hot)			26-Sep-82	transplant	24-Nov-82	59	175	20-Mar-83	15-May-83	56	231	172	4.30	1.63
			Isabella (hot)			26-Sep-82	transplant	24-Nov-82	59	200	14-Apr-83	15-May-83	51	231	172	2.40	0.80
			P.C. I (hot)			26-Sep-82	transplant	24-Nov-82	59	200	14-Apr-83	15-May-83	51	231	172	2.90	0.96
			(sweet)			26-Sep-82	transplant	24-Nov-82	63	200	14-Apr-83	15-May-83	51	231	172	3.10	1.03
			New Star 123A (sweet)			26-Sep-82	transplant	24-Nov-82	63	175	20-Mar-83	15-May-83	56	231	168	3.60	1.20
			Hot Portugal (hot)			26-Sep-82	transplant	24-Nov-82	63	175	20-Mar-83	15-May-83	56	231	168	4.40	1.46
			P7118 (sweet)			26-Sep-82	transplant	24-Nov-82	63	175	20-Mar-83	15-May-83	56	231	168	2.10	0.70
			Pm F1 (sweet)			26-Sep-82	transplant	24-Nov-82	63	175	20-Mar-83	15-May-83	56	231	168	2.20	0.73
			Set No. 18F1 (sweet)			26-Sep-82	transplant	24-Nov-82	63	185	30-Mar-83	15-May-83	46	231	168	7.40	2.46
			Fire (hot)			26-Sep-82	transplant	24-Nov-82	63	185	30-Mar-83	15-May-83	46	231	168	0.70	0.23
			Italian Sweet (sweet)			26-Sep-82	transplant	24-Nov-82	63	175	20-Mar-83	15-May-83	56	231	168	3.30	1.10
			California Wonder 500 (sweet)			26-Sep-82	transplant	24-Nov-82	63	175	20-Mar-83	15-May-83	56	231	168	4.00	1.33
Sweet Pepper	9-2-31 Z	Sweet Pepper	Beider	furrow	75X50cm	16-Aug-82	transplant	21-Sep-82	38	96	20-Mar-83	15-May-83	56	231	168	3.70	1.23
			Sonar			16-Aug-82	transplant	21-Sep-82	38	107	1-Dec-82	24-May-83	185	281	243	92.10	4.05
			Alamo			16-Aug-82	transplant	21-Sep-82	38	107	1-Dec-82	24-May-83	174	281	243	41.50	1.89
			Vidas			16-Aug-82	transplant	21-Sep-82	38	96	20-Mar-83	15-May-83	56	231	243	21.00	1.07
			Bell Boy			16-Aug-82	transplant	21-Sep-82	38	96	20-Mar-83	15-May-83	56	231	243	91.40	4.02
			Lamuyo			16-Aug-82	transplant	21-Sep-82	38	136	30-Dec-82	24-May-83	145	281	243	39.00	1.72
			Lady Bell			16-Aug-82	transplant	21-Sep-82	38	96	20-Mar-83	15-May-83	56	231	243	53.20	2.34
			California Wonder			16-Aug-82	transplant	21-Sep-82	38	107	1-Dec-82	24-May-83	174	281	243	70.30	3.09
			King			16-Aug-82	transplant	21-Sep-82	38	177	30-Mar-83	15-May-83	49	226	178	51.00	2.24
			King Black			16-Aug-82	transplant	21-Sep-82	38	177	30-Mar-83	15-May-83	49	226	178	34.00	3.65
Hamamayah	9-2-34 H	Eggplant long cycle crop	Long Purple	furrow	150X50cm	4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	28.50	4.74
			King Black			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	57.80	7.56
			2425			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	56.30	9.36
			2429			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	48.50	8.08
			Belane			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	42.00	6.98
			Black King			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	56.00	9.31
			29			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	54.20	9.01
			25			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	53.00	8.81
			Short Tom			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	54.50	9.06
			Black Nic			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	45.30	7.53
			Black Bell			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	46.50	7.73
			Vinosa			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	59.00	9.81
			Imperial			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	40.10	6.67
			King			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	54.00	8.98
			King			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	51.50	8.56
			Black Saturn 439			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	57.80	9.61
			Aub 127			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	52.70	8.76
			Aub 122			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	92.00	13.30
			Black Jack			4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	59.30	9.86
			et Hyb			4-Oct-82	transplant	21-Nov-82	48	177	30-Mar-83	15-May-83	49	226	178	57.00	9.48
Black Beauty	4-Oct-82	transplant	21-Nov-82	48	154	7-Mar-83	18-May-83	49	226	178	54.30	9.03					

(continued)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Cult	Crops	Variety	Irrigation	Sowing	Harvesting				Yield				Remarks						
						Planting Interval	Date	Method	Transplanted Date	Days Nursery	Start after Sowing	Start Date	End Date		Days	Total	1st	2nd	3rd	Total
9-2-83 H Hammanyah	Cuc	long cycle crop	Giganteo d'Italia	beam	25-Oct-82	direct	3-Jan-83	92	96	29-Jan-83	15-May-83	106	202	202	202	202	23.60	8.19 4 times cutting		
			Italian Plum Leaf	turret	25-Oct-82	direct	3-Jan-83	92	98	19-Apr-83	19-Apr-83	0	198	106	106	106	4.10	1.44		
9-2-83 H Hammanyah	Cuc	long cycle crop	OE 2765		3-Oct-82	transplant	3-Jan-83	92	198	19-Apr-83	19-Apr-83	0	198	106	106	106	6.40	2.24		
			OE 2766		3-Oct-82	transplant	3-Jan-83	92	228	19-Apr-83	19-Apr-83	0	198	106	106	106	11.50	4.03		
			New Marston Yellow Crano		3-Oct-82	transplant	3-Jan-83	92	228	19-Apr-83	19-Apr-83	0	228	136	136	136	14.00	4.90		
			Tropic Ace		3-Oct-82	transplant	3-Jan-83	92	228	17-May-83	17-May-83	0	228	134	134	134	12.50	4.38		
			Red Grexle		3-Oct-82	transplant	3-Jan-83	92	228	17-May-83	17-May-83	0	228	134	134	134	6.00	2.10		
			Mayon Red		3-Oct-82	transplant	3-Jan-83	92	198	19-Apr-83	19-Apr-83	0	198	106	106	106	8.00	2.80		
			Mayon		3-Oct-82	transplant	3-Jan-83	92	198	19-Apr-83	19-Apr-83	0	198	106	106	106	7.00	2.45		
			Kerrwell		3-Oct-82	transplant	3-Jan-83	92	270	30-Jun-83	30-Jun-83	0	270	178	178	178	9.50	3.33		
			Seurum		3-Oct-82	transplant	3-Jan-83	92	270	30-Jun-83	30-Jun-83	0	270	178	178	178	4.50	1.58		
			Golden Beauty		3-Oct-82	transplant	3-Jan-83	92	270	30-Jun-83	30-Jun-83	0	270	178	178	178	7.00	2.45		
			Rockets		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	7.50	2.63		
			Onion M		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	5.00	1.75		
			Stern		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	6.00	2.10		
			Koby		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	3.50	1.23		
			Uruz		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	8.50	2.98		
			Promus S		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	9.50	3.33		
			Taurus		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	4.50	1.58		
			Soldor		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	2.00	0.70		
			Rijnberger Kraso		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	2.50	0.88		
			Large 1091 H		7-Oct-82	transplant	4-Jan-83	89	266	30-Jun-83	30-Jun-83	0	266	177	177	177	2.50	0.88		
9-2-83 H Phal	Cuc	summer crop	Nitroberry	turret	25-Mar-83	direct	4-Jan-83	89	104	14-Jun-83	14-Jun-83	0	104	104	104	1.50	0.06	good try again		
Watermelon			turret	25-Mar-83	direct	4-Jan-83	89	194	14-Jun-83	28-Jun-83	14	118	118	118	10.00	0.40	Hammanyah salinity no yield			
9-2-83 H	Cuc	summer crop	2413 F1	turret	2-Mar-83	direct	3-Jan-83	92	97	7-Jun-83	7-Jun-83	0	97	97	97	3.00	0.12	Virus % = 52.9		
			Sweet Marvel	turret	2-Mar-83	direct	3-Jan-83	92	97	7-Jun-83	14-Jun-83	7	104	104	104	20.50	0.82	Virus % = 44.4		
			Turkey Sweet	turret	2-Mar-83	direct	3-Jan-83	92	118	28-Jun-83	28-Jun-83	0	118	118	118	12.00	0.48	Virus % = 31.0		
			Seedless Tommy	turret	2-Mar-83	direct	3-Jan-83	92	97	7-Jun-83	14-Jun-83	7	104	104	104	24.00	0.96	Virus % = 35.0		
			SunShade	turret	2-Mar-83	direct	3-Jan-83	92	97	7-Jun-83	14-Jun-83	7	104	104	104	24.00	0.96	Virus % = 36.8		
			Sugar Baby	turret	2-Mar-83	direct	3-Jan-83	92	97	7-Jun-83	14-Jun-83	7	104	104	104	13.00	0.52	Virus % = 58.8		
			Imperial	turret	2-Mar-83	direct	3-Jan-83	92	104	14-Jun-83	28-Jun-83	14	118	118	118	26.00	1.04	Virus % = 60.0		
			Prince Charles	turret	2-Mar-83	direct	3-Jan-83	92	104	14-Jun-83	28-Jun-83	14	118	118	118	31.00	1.24	Virus % = 68.4		
			Farmers Giant	turret	2-Mar-83	direct	3-Jan-83	92	108	18-Jun-83	18-Jun-83	0	108	108	108	25.00	1.00	Virus % = 57.9		
			Galban Grey	turret	2-Mar-83	direct	3-Jan-83	92	78	18-Jun-83	18-Jun-83	8	82	82	82	50.00	2.00	Virus % = 20.0		
			Simpson Sweet	turret	5-Apr-83	direct	5-Apr-83	direct	78	22-Jun-83	26-Jun-83	4	82	82	82	31.00	1.24	Virus % = 11.1		
			Improved Crimson Sweet 18259	turret	5-Apr-83	direct	5-Apr-83	direct	70	14-Jun-83	26-Jun-83	12	82	82	82	64.50	2.58	Virus % = 0.0		
			Benthamquin	turret	5-Apr-83	direct	5-Apr-83	direct	70	14-Jun-83	26-Jun-83	12	82	82	82	79.20	3.17	Virus % = 0.0		
			Solado Samba	turret	5-Apr-83	direct	5-Apr-83	direct	67	11-Jun-83	26-Jun-83	15	82	82	82	24.00	0.96	Virus % = 36.8		
			Kyannon No. 2	turret	5-Apr-83	direct	5-Apr-83	direct	104	14-Jun-83	28-Jun-83	14	118	118	118	53.00	2.12	Virus % = 58.8		
			Royal Charleston	turret	2-Mar-83	direct	2-Mar-83	direct	97	7-Jun-83	28-Jun-83	21	118	118	118	25.00	1.00	Virus % = 61.1		
			15x Grand Baby	turret	2-Mar-83	direct	2-Mar-83	direct	97	7-Jun-83	28-Jun-83	21	118	118	118	31.00	1.24	Virus % = 56.3		
			119 Jumbo	turret	2-Mar-83	direct	2-Mar-83	direct	97	7-Jun-83	28-Jun-83	21	118	118	118	16.00	0.64	Virus % = 55.0		
			Gloxy Charleston Grey	turret	2-Mar-83	direct	2-Mar-83	direct	97	7-Jun-83	28-Jun-83	21	118	118	118					
			Top Yield																	

(continue)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (Open Field Cropping)

Item	Incl Code	Crops	Variety	Irrigation	Sowing		Transplanted		Harvesting		Yield			Remarks			
					Planting interval	Due	Method	Date	Days Nursery	Start after Sowing	Start Date	End Date	Days		Growing Period	Total Days in Field	1st
Hamamnyah	9-2-81 H	Melon summer crop	Improved Periduck	turrow	26-Mar-83	direct	26-Mar-83	24	78	22-Jun-83	16-Jul-83	24	112	112	7.50	0.28	Virus % = 30.0
			Don Rodrigo	direct	26-Mar-83	direct	78	78	22-Jun-83	16-Jul-83	24	96	96	1.80	0.09	Virus % = 47.1	
			Ht Cross Gulf Sweet	direct	26-Mar-83	direct	80	80	14-Jun-83	16-Jul-83	32	112	112	5.50	0.28	Virus % = 20.0	
			Cherry Ball	direct	26-Mar-83	direct	77	77	11-Jun-83	16-Jul-83	35	112	112	11.70	0.59	Virus % = 25.0	
			419	direct	26-Mar-83	direct	80	80	14-Jun-83	16-Jul-83	32	112	112	12.80	0.64	Virus % = 30.0	
			OE 2603 F1	direct	26-Mar-83	direct	84	84	18-Jun-83	16-Jul-83	28	112	112	5.20	0.26	Virus % = 45.0	
			OE 2761 F1	direct	26-Mar-83	direct	84	84	18-Jun-83	16-Jul-83	28	112	112	14.00	0.70	Virus % = 20.0	
			Early Sweet F1	direct	26-Mar-83	direct	77	77	11-Jun-83	16-Jul-83	35	112	112	15.70	0.79	Virus % = 30.0	
			Perfita	direct	26-Mar-83	direct	84	84	18-Jun-83	16-Jul-83	28	112	112	14.60	0.73	Virus % = 40.0	
			us	direct	26-Mar-83	direct	84	84	18-Jun-83	16-Jul-83	28	112	112	9.70	0.49	Virus % = 25.0	
			money row No. 553 at 45	direct	26-Mar-83	direct	88	88	22-Jun-83	16-Jul-83	24	112	112	20.00	1.00	Virus % = 60.0	
			Summet	direct	26-Mar-83	direct	84	84	18-Jun-83	16-Jul-83	28	112	112	4.30	0.22	Virus % = 30.0	
			Supreme Delight	direct	26-Mar-83	direct	112	112	16-Jul-83	16-Jul-83	0	112	112	5.30	0.26	Virus % = 15.0	
			PMR 45K Stream	direct	26-Mar-83	direct	112	112	16-Jul-83	16-Jul-83	0	112	112	16.80	0.84	Virus % = 20.0	
			subo Golden Beauty	direct	26-Mar-83	direct	88	88	22-Jun-83	4-Jul-83	12	100	100	2.50	0.13	Virus % = 65.0	
Anna Super	direct	26-Mar-83	direct	92	92	26-Jun-83	30-Jun-83	8	96	96	5.00	0.25	Virus % = 15.0				
Moon Star PMR 2825	direct	26-Mar-83	direct	112	112	16-Jul-83	16-Jul-83	0	112	112	16.50	0.83	Virus % = 15.0				
Hamamnyah	9-2-81 H	Okra summer crop	Alfalfa	turrow	5-Apr-83	direct	5-Apr-83	29	74	18-Jun-83	17-Jul-83	29	103	103	23.20	1.16	Virus % = 10.0
			Penca Green	direct	26-Mar-83	direct	77	77	11-Jun-83	16-Jul-83	35	102	102	14.50	0.73	Virus % = 20.0	
			Herald 14005	direct	23-Feb-83	direct	67	67	1-May-83	16-Jul-83	76	143	143	16.70	0.73	Virus % = 50.0	
			Better Five	direct	23-Feb-83	direct	63	63	27-Apr-83	16-Jul-83	80	143	143	15.20	0.76		
			rt Long Green	direct	23-Feb-83	direct	63	63	27-Apr-83	16-Jul-83	80	143	143	9.65	0.48		
			Anna Coabey	direct	23-Feb-83	direct	63	63	27-Apr-83	16-Jul-83	80	143	143	11.40	0.56		
			I	direct	23-Feb-83	direct	67	67	1-May-83	16-Jul-83	76	143	143	8.20	0.39		
			Bhondee Pusa Sawan	direct	23-Feb-83	direct	77	77	1-May-83	16-Jul-83	66	143	143	17.95	0.89		
			Chemsan Synthesis	direct	23-Feb-83	direct	67	67	1-May-83	16-Jul-83	76	143	143	9.60	0.48		
			Acc 55	direct	23-Feb-83	direct	63	63	27-Apr-83	16-Jul-83	80	143	143	8.05	0.40		
			Acc 55	turrow	26-Mar-83	direct	56	56	29-Apr-83	16-May-83	38	144	144	93.00	3.71		
			Chakra	turrow	26-Mar-83	transplant	21-Dec-82	54	79	29-Apr-83	16-May-83	38	144	144	81.00	2.71	
			Bhondee Pusa Sawan	turrow	26-Mar-83	transplant	21-Dec-82	54	79	29-Apr-83	16-May-83	38	144	144	14.50	0.73	with hormones/Miraculan or 1-Hydrocorty.
			Bhondee Pusa Sawan	turrow	26-Mar-83	transplant	21-Dec-82	54	79	29-Apr-83	16-May-83	38	144	144	13.20	0.66	

Source: IMA/UNDP/FAO "Water and soil investigations for Agricultural Development U.A.E. 80/007. Experimental Works on vegetables 1982-83. Season: December 1983

5.1.2. Greenhouse Trials

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (in House Cropping)

Item	Trial Code	Crops	Variety	Sowing		Transplanting		Start after Sowing	Harvesting		Total Days in Field	Yield			Total Kg/m <sup>2</sup>	Remarks	
				Date	Method	Transplants Date	Days Nursery		Start Date	End Date		Days	1st	2nd			3rd
Protected Vegetables	9-2-3H	Cucumber	Damascus	19-Oct-82	Direct			43	1-Dec-82	19-Jan-83	49	92	81.90	80.00	63.60	225.50	4.53
	House Hamrayyah	(short, winter)	Zona	19-Oct-82	Direct			43	1-Dec-82	19-Jan-83	49	92	75.80	74.30	62.90	213.00	4.28
	9-2-3Z	Cucumber	Damascus	4-Oct-82	Direct			43	1-Dec-82	19-Jan-83	49	92	83.60	89.50	79.50	242.60	5.08
	House Dhad	(short, winter)	Zona	4-Oct-82	Direct			43	16-Nov-82	8-Jan-83	53	96	104.75	126.90	131.00	362.65	6.39
	9-2-4H	Cucumber	Market King	19-Oct-82	Direct			51	9-Dec-82	19-Jan-83	41	92	82.90	76.00	63.60	225.10	4.52
	House Hamrayyah	(long, winter)	Fuadjo	19-Oct-82	Direct			53	11-Dec-82	19-Jan-83	39	92	86.10	76.00	80.30	242.40	4.87
	9-2-4H Z1	Cucumber	Market King	4-Oct-82	Direct			43	16-Nov-82	8-Jan-83	53	96	97.00	83.00	94.00	274.00	4.98
	House Dhad	(long, winter)	Fuadjo	4-Oct-82	Direct			43	16-Nov-82	8-Jan-83	53	96	92.50	96.00	103.00	291.50	5.34
	9-2-4H Z2	Cucumber	Market King	12-Sep-82	Direct			48	30-Oct-82	26-Jan-83	88	136	147.80	138.10	156.30	442.20	8.91
	House Dhad	(long, winter)	Fuadjo	12-Sep-82	Direct			48	30-Oct-82	26-Jan-83	88	136	87.90	137.95	163.05	388.90	7.84
	9-2-5D	Sweet Paper	Video	16-Sep-82	Transplant	31-Oct-82	45	91	16-Dec-82	5-Jun-83	171	262	111.80	85.10	124.60	321.50	8.37
	Introduction of New Varieties	9-2-5H	Sweet Paper	Alamo	16-Sep-82	Transplant	31-Oct-82	45	91	16-Dec-82	5-Jun-83	171	262	117.55	91.00	99.45	286.00
House Dibba		Lady Bell	California Wg	16-Sep-82	Transplant	31-Oct-82	45	91	16-Dec-82	5-Jun-83	171	262	157.90	134.60	138.00	430.50	11.21
9-2-5H		Sweet Paper	Video	12-Oct-82	Transplant	16-Nov-82	35	104	24-Jan-83	11-Jun-83	138	242	207			246.70	14.87
House Hamrayyah		P7118	Alamo	12-Oct-82	Transplant	16-Nov-82	35	104	24-Jan-83	11-Jun-83	138	242	207			242.20	14.60
9-2-5H		Sweet Paper	Video	12-Oct-82	Transplant	16-Nov-82	35	104	24-Jan-83	11-Jun-83	138	242	207			230.20	13.88
House Hamrayyah		Alamo	Alamo	12-Oct-82	Transplant	16-Nov-82	35	104	24-Jan-83	11-Jun-83	138	242	207			308.80	18.61
9-2-5H		Sweet Paper	Video	12-Oct-82	Transplant	16-Nov-82	35	104	24-Jan-83	11-Jun-83	138	242	207			263.40	15.88
House Hamrayyah		Catextra	Italian Sweet	12-Oct-82	Transplant	16-Nov-82	35	104	24-Jan-83	11-Jun-83	138	242	207			190.60	11.40
9-2-5H		Sweet Paper	Video	12-Oct-82	Transplant	16-Nov-82	35	116	5-Feb-83	11-Jun-83	126	242	207			277.30	16.72
House Hamrayyah		Exerc	Lady Bell	12-Oct-82	Transplant	16-Nov-82	35	116	5-Feb-83	11-Jun-83	126	242	207			285.40	17.20
9-2-5Z		Sweet Paper	Video	16-Aug-82	Transplant	16-Sep-82	31	79	3-Nov-82	9-Feb-83	98	177	146			224.70	13.54
House Dhad		Alamo	Lady Bell	16-Aug-82	Transplant	16-Sep-82	31	79	3-Nov-82	9-Feb-83	98	177	146			74.50	2.37
9-2-12H1	Cucumber (long)	Fuadjo	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			82.00	2.48	
9-2-12H2	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			168.25	2.48	
9-2-12H3	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			146.50	5.88	
9-2-12H4	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			229.90	9.23	
9-2-12H5	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			149.60	6.01	
9-2-12H6	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			46.50	2.35	
9-2-12H7	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			65.90	3.33	
9-2-12H8	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			3.06	more damaged by virus	
9-2-12H9	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			38.90	1.97	
9-2-12H10	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			84.10	4.25	
9-2-12H11	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			38.00	1.92	
9-2-12H12	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			83.80	4.24	
9-2-12H13	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			56.10	2.84	
9-2-12H14	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			84.80	4.29	
9-2-12H15	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			74.40	3.76	
9-2-12H16	Cucumber (long & small)	Market King	14-Sep-82	direct			43	27-Oct-82	7-Jan-83	72	115	115			69.20	3.50	

(continue)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (in House Cropping)

Item	Tnal Code	Sowing			Transplanting			Harvesting			Total Growing Period	Total Days in Field	Yield			Remarks				
		Crops	Variety	Date	Method	Transplanting Date	Days Nursery	Start after Sowing	Start Date	End Date			Days	1st	2nd		3rd	Total	Kg/m <sup>2</sup>	
Production of Cucumbers in House Hamraiyah	9-2-12H5	Cucumber (small)	Amcogreen	12-Jan-83	transplant	12-Feb-83	31	64	17-Mar-83	11-Jun-83	86	150	119	182.50	11.02					
				12-Jan-83	transplant	12-Feb-83	31	64	17-Mar-83	11-Jun-83	86	150	119	140.80	8.49					
				12-Jan-83	transplant	12-Feb-83	31	60	15-Mar-83	11-Jun-83	90	150	119	179.40	10.81					
				12-Jan-83	transplant	12-Feb-83	31	60	15-Mar-83	11-Jun-83	90	150	119	234.40	14.67					
				12-Jan-83	transplant	12-Feb-83	31	64	17-Mar-83	11-Jun-83	86	150	119	131.80	7.96					
				12-Jan-83	transplant	12-Feb-83	31	60	15-Mar-83	11-Jun-83	90	150	119	189.20	11.40					
				12-Jan-83	transplant	12-Feb-83	31	60	15-Mar-83	11-Jun-83	90	150	119	144.90	8.73					
				12-Jan-83	transplant	12-Feb-83	31	64	17-Mar-83	11-Jun-83	86	150	119	213.70	12.88					
				12-Jan-83	transplant	12-Feb-83	31	60	15-Mar-83	11-Jun-83	90	150	119	130.20	7.85					
				12-Jan-83	transplant	12-Feb-83	31	102	25-Jan-83	5-Feb-83	11	113	113	113	13.30		0.91			
Production of Cucumbers in House Dhaud	9-2-13Z	Muskmelon (winter crop)	213 Swan	15-Oct-82	direct			92	15-Jan-83	15-Jan-83	0	92	17.00	1.02						
				15-Oct-82	direct			92	15-Jan-83	5-Feb-83	21	113	48.50	2.90						
				15-Oct-82	direct			92	15-Jan-83	5-Feb-83	21	113	26.30	1.64						
				15-Oct-82	direct			92	15-Jan-83	5-Feb-83	21	113	39.50	2.75						
				15-Oct-82	direct			102	25-Jan-83	5-Feb-83	11	113	33.50	2.71						
				15-Oct-82	direct			92	15-Jan-83	15-Jan-83	0	92	21.00	1.31						
				15-Oct-82	direct			92	15-Jan-83	5-Feb-83	21	113	15.50	1.55						
				15-Oct-82	direct			102	25-Jan-83	5-Feb-83	11	113	34.30	2.94						
				15-Oct-82	direct			78	3-May-83	27-Jul-83	85	163	298.60	7.54						
				15-Oct-82	direct			83	8-May-83	27-Jul-83	80	163	374.10	9.77						
Production of Cucumbers in House Hamraiyah	9-2-16H	Tomato summer crop	Tant	14-Feb-83	transplant	20-Mar-83	34	78	3-May-83	27-Jul-83	85	163	298.60	7.54	cooling system down end of July					
				14-Feb-83	transplant	20-Mar-83	34	83	8-May-83	27-Jul-83	80	163	374.10	9.77						
				14-Feb-83	transplant	20-Mar-83	34	87	12-May-83	27-Jul-83	76	163	449.80	11.75						
				14-Feb-83	transplant	20-Mar-83	34	83	8-May-83	27-Jul-83	80	163	368.50	9.62						
				17-Jan-83	transplant	9-Mar-83	51	96	23-Apr-83	1-Jul-83	69	165	258.50	6.54						
				17-Jan-83	transplant	9-Mar-83	51	96	23-Apr-83	1-Jul-83	69	165	254.00	6.43						
				17-Jan-83	transplant	9-Mar-83	51	96	23-Apr-83	1-Jul-83	69	165	244.00	6.18						
				17-Jan-83	transplant	9-Mar-83	51	96	23-Apr-83	1-Jul-83	69	165	253.00	6.40						
				16-Nov-82	direct			60	15-Jan-83	12-May-83	117	177	198.70	3.42						
				16-Dec-82	direct			69	23-Feb-83	12-May-83	78	147	139.60	2.40						
Production of Cucumbers in House Dhaud	9-2-1Z	Dwarf Bean	Astro	15-Oct-82	direct			82	6-Jan-83	21-Apr-83	105	187	120.90	2.08						
				15-Nov-82	direct			61	15-Jan-83	10-Apr-83	85	146	58.30	1.08						
				15-Dec-82	direct			68	21-Feb-83	19-Apr-83	57	125	79.50	1.47						
				15-Dec-82	direct			43	27-Nov-82	10-Mar-83	103	146	88.00	2.04						
				15-Nov-82	direct			52	6-Jan-83	19-Apr-83	103	155	102.00	2.36						
				4-Jan-83	transplant			55	28-Feb-83	14-May-83	75	130	96.00	2.22						
				3-Sep-82	transplant			39	100	12-Dec-82	1-Jun-83	171	271	1,986.50		10.55				
				3-Sep-82	transplant			39	100	12-Dec-82	1-Jun-83	171	271	1,598.50		8.54				
				2-Oct-82	direct			45	16-Nov-82	15-Jan-83	60	105	1,015.00	5.44						
				2-Oct-82	direct			45	16-Nov-82	15-Jan-83	60	105	945.00	5.17						
Production of Cucumbers in House Dhaud	9-2-8Z	Cucumber (long)	2.6 plants/m <sup>2</sup>	2-Oct-82	direct			45	16-Nov-82	15-Jan-83	60	105	1,015.00	5.44	for sandy soil high density is better					
				2-Oct-82	direct			45	16-Nov-82	15-Jan-83	60	105	945.00	5.17						
				2-Oct-82	direct			45	16-Nov-82	15-Jan-83	60	105	1,015.00	5.44						
				2-Oct-82	direct			45	16-Nov-82	15-Jan-83	60	105	945.00	5.17						
				2-Oct-82	direct			45	16-Nov-82	22-Jan-83	67	112	880.50	4.67						
				2-Oct-82	direct			45	16-Nov-82	22-Jan-83	67	112	924.50	4.95						
				2-Oct-82	direct			0	0	0	0	0	0	0		0	0	0		
				2-Oct-82	direct			0	0	0	0	0	0	0		0	0	0	0	
				2-Oct-82	direct			0	0	0	0	0	0	0		0	0	0	0	0
				2-Oct-82	direct			0	0	0	0	0	0	0		0	0	0	0	0

(continue)

Experimental Works on Vegetables 1982-83 by UNDP/FAO in Northern Emirates (in House Cropping)

Item	Trial Code	Crop	Variety	Sowing		Transplanting		Harvesting		Total Growing Period	Total Days in Field	Yield			Remarks	
				Date	Method	Date	Days Nursery	Start after Sowing	Start Date			End Date	Days	1st		2nd
Introduction of New Sowing Method	9-2-47 Z	Cucumber small	Imported soil traditional	10-Jan-83	transplant	12-Feb-83	33	08	19-Mar-83	7-May-83	49	117	84	884.55	5.22	
	Dhaid	Dumassus		9-Feb-83	direct		0	0	30-Mar-83	7-May-83	38	87	87	1,075.50	5.71	
	9-2-48 D	Cucumber small	Dumassus (imp)	12-Jan-83	transplant	9-Feb-83	28	63	16-Mar-83	25-May-83	70	133	105	176.00	1.95	
	house		Byblos (import)	12-Jan-83	transplant	9-Feb-83	28	57	10-Mar-83	25-May-83	76	133	105	321.00	3.57	
	Dibba		Dumassus (tra)	6-Feb-83	direct		0	44	22-Mar-83	25-May-83	64	108	108	141.00	1.58	
	house		Byblos (tradit)	6-Feb-83	direct		0	38	16-Mar-83	25-May-83	70	108	108	226.00	2.51	
	9-2-48 H	Cucumber long	Imported soil traditional	12-Jan-83	transplant	8-Feb-83	27	64	17-Mar-83	28-May-83	72	136	109	994.70	10.80	
	house			6-Feb-83	direct		0	53	31-Mar-83	28-May-83	58	111	111	936.10	10.26	
	Hamzaniyah	Market King					0	0			0	0	0			
	9-2-48 Z	Cucumber long	Imported soil traditional	12-Jan-83	transplant	12-Feb-83	31	66	19-Mar-83	19-May-83	61	127	96	1,643.00	8.72	
Introduction of a new Pruning Method	9-2-49 H	Cucumber small	Pruning 2 leaves traditional	10-Jan-83	transplant	10-Feb-83	31	62	13-Mar-83	18-May-83	66	128	97	727.90	7.98	
	house		Pruning 2 leaves traditional	10-Jan-83	transplant	10-Feb-83	31	31	13-Mar-83	18-May-83	66	97	97	660.90	7.24	
	Dhaid	Dumassus		12-Jan-83	transplant	12-Feb-83	31	66	19-Mar-83	7-May-83	49	115	84	1,031.00	5.47	
	9-2-49 Z	Cucumber long	Pruning 2 leaves traditional	12-Feb-83	direct		0	35	19-Mar-83	7-May-83	49	84	84	1,100.00	5.84	
	house			12-Feb-83	direct		0	0			0	0	0			
	Dhaid	Dumassus		12-Jan-83	transplant	14-Feb-83	33	66	19-Mar-83	19-May-83	61	127	94	1,620.50	8.60	
	9-2-50 Z	Cucumber long	Pruning 2 leaves traditional	12-Jan-83	transplant	14-Feb-83	33	66	19-Mar-83	19-May-83	61	127	127	2,003.50	10.63	
	house			12-Jan-83	transplant	14-Feb-83	33	66	19-Mar-83	19-May-83	61	127	127			
	Dhaid	Market King					0	0			0	0	0			
	9-1-14 D	Cucumber small	Dumassus		12-Oct-82	direct		46	27-Nov-82	28-Jan-83	59	105	105	648.50	3.61	
Production Trials	house		Byblos	12-Oct-82	direct		46	27-Nov-82	25-Jan-83	59	105	105	738.00	4.17		
	Dibba															
	9-1-14 Z	Dwarf Bean	Astro	15-Oct-82	direct		65	19-Dec-82	15-Jan-83	27	92	92	160.00	1.18		
	house		Harvester	15-Oct-82	direct		64	18-Dec-82	15-Jan-83	28	92	92	159.80	1.18		
Dhaid																
9-2-52 H	Sweet Pepper cooled house	Lady Bell		15-Feb-83	transplant	4-Apr-83	48	86	12-May-83	27-Jul-83	76	162	1,221.60	7.79	cooling system not sufficiently end of Ju	
house																
Hamzaniyah																

Source: MAP/UNDP/FAO - Water and soil Investigations for Agricultural Development UAE 80007. Experimental Works on vegetables 1982-83 Season, December 1983

## **5.2. Farm Inventory Survey**

### **5.2.1. Contents of Survey Report**

#### **CONTENTS**

**VOLUME I : Survey report and Methodology**

**VOLUME II : (1) General Farm Details**

**VOLUME III : (2) Crops Data**

**VOLUME IV : (3) Fertiliser & Pesticide Inputs Data**

**VOLUME V : (4) Livestock Data**

**VOLUME VI : (5) Farms Financial Data**

**VOLUME VII : (6) Farming Intentions Data**

**VOLUME VIII : (7) Water Data**

**VOLUME IX : (8) Wells Data**