

ANE92-011

APPENDIX I : PROJECT CHARTS

1994 S.A.R.E. PROJECT
 F.A.R.M. COOP., INC.
 15% TO 18% GRADE
 SIDE A CONVENTIONAL

YEAR #2
 SOIL TYPE: CULLEOKA COMPLEX
 DORMONT SILT LOAM
 SIDE B SUSTAINABLE

: FIELD #2	:	: FIELD #6 B1	:
:	:	: PEPPERS	:
:	:	: STRIP TIL	:
: PEPPERS	:	:	:
:	:	: FIELD #5 B1	:
: (MOLD BOARD PLOW)	:	: SWEET CORN	:
:	:	: MULCH TIL	:
:	:	:	:
: roadway	:	: roadway	:
: FIELD #1	:	: FIELD #7 B1	:
:	:	: PUMPKINS	:
: SWEET CORN	:	: NO TIL	:
: (PLOW, DISC, DRILL)	:	:	:
:	:	: FIELD #8B1	:
:	:	: COVER:	:
:	:	: CLOVER/ BUCKWHEAT BROADCAST	:
:	:	:	:
: DIVERSION ***	:s	: *** DIVERSION	:
:	:t	:	:
: FARM ROAD	:r	: FARM ROAD	:
: FIELD #3	:i	: FIELD #6 B2	:
:	:p	: PEPPERS	:
: PUMPKINS	:	: STRIP TIL	:
: (MOLD BOARD PLOW)	:d	:	:
:	:r	: FIELD #5 B2	:
:	:a	: SWEET CORN	:
:	:i	: MULCH TIL	:
:	:n	:	:
: roadway	:a	: roadway	:
: FIELD #4	:g	: FIELD #7 B2	:
:	:e	: PUMPKINS	:
: COVER	:	: NO TIL	:
: (MOLD BOARD & DISC)	:	:	:
: RYE FOLLOWED BY	:	: FIELD #8 B2	:
: ALFALFA/BUCKWHEAT COMB	:	: COVER	:
:	:	: 2ND YEAR CLOVER	:
:	:	:	:
: DIVERSION ***	:	: *** DIVERSION	:
:	:	:	:
CREEK~~~~CREEK~~~~CREECREEK~~~~~	:	CREEK~~~~CREEK~~~~CREECREEK~~~~~	:

S.A.R.E. PROJECT YEAR 2

NOTE: *CONVENTIONAL STRIPS ARE 80 FT.WIDE
 WITH 8 FT. ROADWAYS IN BETWEEN
 *SUSTAINABLE STRIPS ARE 36 FT. WIDE WITH
 COVERED ROADWAYS IN BETWEEN.
 *THE DRAINAGE STRIP DOWN THE CENTER WAS REPLANTED
 WITH A COVER MIXTURE OF:
 PERENIAL RYE(40%), KENTUCKY 31 TALL FESCUE(30%),
 ANNUAL RYE(20%), AND HUIA WHITE CLOVER(10%)
 SAME MIXTURE WAS USED TO RESEED DIVERSIONS
 *SUSTAINABLE ROADWAYS WERE PLANTED WITH COVER MIXTURE:
 PERENIAL RYE(40%), HUIA WH. CLOVER(30%), ANNUAL RYE(30%)
 *SUSTAINABLE PEPPER ROWS WERE SEEDED WITH MIXTURE:
 50% WH. DUTCH CLOVER, 30% BERSEEM CLOVER, & 20% ANNUAL RYE

PRODUCTION RECORD 1994 DATE	PUMPKINS CONVENTIONAL HARVEST	SUSTAINABLE HARVEST	ANE#92.11 CONV TIME	S.A.R.E. SUST TIME	1994
9-22-94	1640		245		
9-26-94	800		40		
10-4-94	2500		360		
10-6-94	1250		105		
10-8-94	1905	960	120	60	
10-10-94		1,860		120	
10-13-94		960		75	
10-11-94	820	800	60	45	
10-9-94		1860		120	
TOTALS	8,915	6,440	930	420	

PUMPKIN PROJECT COSTS TONAGE	PROJECT COST CONVENTIONAL	PROJECT COST SUSTAINABLE	PER ACRE CONVENT	PER ACRE SUSTAIN.
VALUE	\$1,069.80	\$772.80	\$4,247.11	\$3,941.28
SEED	\$30.58	\$23.80	\$121.40	\$121.38
PLANT/CULT.	\$148.50	\$56.50	\$589.55	\$288.15
FERTILIZER	\$18.05	\$14.04	\$71.66	\$71.60
SPRAYS/CHEM.	\$37.98	\$18.04	\$150.78	\$92.00
HARVEST	\$108.50	\$49.00	\$430.75	\$430.75
TRANSPORT	\$111.44	\$80.50	\$442.41	\$410.55
PRODUCT COST	\$455.05	\$241.88	\$1,806.54	\$1,414.44
PROFIT(LOSS)	\$614.75	\$530.92	\$2,440.57	\$2,526.84
PER ACRE VALUE	\$2,440.57	\$2,526.84		

CHART 2-94

PRODUCTION
RECORD

SARE 94

SWEET CORN

DATE	NOTES	SUST FLDS AMT.	CONV FLDS AMT.	SUST FLDS EQUIV	SUST TIME MIN	CONV TIME MIN.	SUST TIME EQUV
9-2-94			636			100	
9-3-94			516			75	
9-5-94			312			45	
DROUGHT/COON			600			90	
SUBTOTAL			2064			310	
9-10-94		336		470	45		63
9-13-94		240		307	30		42
9-14-94		288		369	40		56
DROUGHT/COON		428		599	65		91
SUB-TOTAL		1292		1745	180		252
TOTAL YIELD		1292	2064	1745	180	310	252
TOTAL VALUE		\$215	\$344	\$291	\$21.00	\$36.17	\$29.40

SWEETCORN

PROJECT COSTS	PROJECT COST	PROJECT COST	SUST FLDS EQUIV	PER ACRE CONVENT.	PER ACRE SUSTAIN.
YIELD VALUE	\$215.33	\$344.00	\$290.91	\$1,252.16	\$1,098.20
SEEDING	\$10.29	\$14.44	\$14.44	\$52.50	\$52.50
CULT/PLANT	\$50.00	\$85.00	\$70.00	\$309.40	\$255.00
FERTILIZER	\$20.30	\$30.33	\$28.42	\$110.40	\$103.53
SPRAY/CHEM.	\$13.80	\$40.44	\$19.32	\$147.20	\$70.38
HARVEST	\$21.00	\$36.17	\$29.40	\$107.10	\$107.10
TRANSPORT	\$20.00	\$20.00	\$20.00	\$80.00	\$80.00
TOTAL COST	\$135.39	\$226.38	\$181.58	\$806.60	\$668.51
PROFIT(LOSS)	\$79.94	\$117.62	\$109.33	\$445.56	\$429.69
PER ACRE VALUE	\$429.69	\$445.56			

CHART 3-94

PEPPERS
PROJECT

COST 1994	CONVENTIONAL PROJECT VALUES	SUSTAINABLE PROJECT VALUES	PER ACRE CONVENT.	PER ACRE SUSTAIN.	ADJUSTED CONVENT. PER ACRE
YIELD	\$795.47	\$1,496.13	\$2,895.50	\$5,430.96	\$4,893.39
SEED/PLANTS	\$150.75	\$255.75	\$548.73	\$930.93	\$927.35
IRR/CULT	\$283.50	\$217.70	\$1,031.94	\$792.43	\$1,031.94
FERTILIZER	\$21.58	\$19.58	\$78.55	\$71.27	\$132.75
SPRAY/CHEM.	\$46.40	\$7.68	\$168.90	\$27.96	\$168.90
HARVEST	\$183.75	\$348.02	\$668.85	\$1,266.79	\$1,130.36
MULCH	\$22.00	\$48.00	\$80.08	\$174.72	\$80.00
TOTAL COST	\$707.98	\$896.73	\$2,577.05	\$3,264.10	\$3,471.30
PROFIT/LOSS ADJUSTMENT	\$87.49	\$599.40	\$318.45	\$2,166.87	\$1,422.09
PER ACRE VALUE	CONVENTIONAL \$1,422.09	SUSTAINABLE \$2,166.87			

CHART 4-94

CONVENTIONAL PEPPERS WERE PLANTED IN SINGLE ROWS USING A BLACK PLASTIC MULCH, WHILE SUSTAINABLE PEPPERS WERE PLANTED IN DOUBLE ROWS INTO SHREDDED NEWSPAPER OR MULCH HAY. ADJUSTMENTS ARE MADE IN THE ABOVE TABLE TO REFLECT AN EQUAL NUMBER OF PLANTS PLANTED INTO BOTH PROJECT FIELDS. BLACK PLASTIC MULCHED CONVENTIONAL PEPPERS LOST 17% OF THEIR PLANTS AT PLANTING, COMPARED TO AROUND A 4% LOSS INTO THE MULCHED SUSTAINABLE STRIP.

PRODUCTION 1994 SWEET PEPPERS		S.A.R.E.					
DATE	FIELD	GROSS COUNT	NET SUSTAIN. COUNT/ WEIGHT	SUSTAIN. TIME IN MINUTES	NET CONVEN. COUNT/ WEIGHT	CONVEN. TIME IN MINUTES	
7-22	LS	34	28	80			
7-23	US	134.25	112.5	135			
7-24	CONV	164			133	120	
7-24	LS	58	47	40			
7-28	CONV	125			106	100	
7-28	CONV	401			345	480	
7-29	US	146.5	126	120			
7-31	US	349	296	220			
7-31	LS	54	47	30			
8-4	LS	337	314	205			
8-8	CONV	303			271	120	
8-9	LS	119	100.5	46			
8-12	LS	114	92	60			
8-13	US	235	201	120			
8-23	US	45	39.25	35			
8-29	US	159.25	136.25	90			
9-3	US	223	186	120			
9-2	LS	72	64	30			
9-1	LS	245.5	207	90			
9-1	LS	250.25	220	90			
9-3	US	123	96	60			
9-6	CONV	229			195.5	92	
9-7	CONV	315			267	69	
9-9	US	148	120	45			
9-10	CONV	525	451	100	451	100	
9-11	CONV	55.5			47.5	20	
9-12	US	349	298	146			
9-16	LS	258	210	126			
9-23	CONV	275			234	60	
9-26	US	125	102	54			
9-30	CONV	379			321	160	
9-28	LS	315	273	60			
9-21	CONV	186			163	84	
9-15	LS	261	225	114			
9-26	US	297	265	120			
9-12	LS	144	122	140			
10-4	LS	488	412	210			
10-3	LS	166	144	45			
10-7	US	261	227	60			
10-10	CONV	376	334	140	334	140	
10-21	CONV	125	115	30	115	30	

TOTALS		8969.25	5610.5	2961	2983	1575	
HARVEST VALUE			\$1,496.13		\$795.47		
LABOR COST				\$348.02		\$183.75	
FIELD ACRES			0.275		0.275		
PER ACRE EQUIVILENTS			\$5,430.96	\$1,266.78	\$2,895.50		\$668.85

PESTICIDE/
HERBICIDE/
FUNGICIDE/

RECORD
FOR 1994
SARE PROJECT
CHEMICALS

MATTHEWS
FARM

DATE	CHEMICAL	FIELD	CROP	PROJECT ACRES	COST/ ACRE	PROJECT COST	TOTAL SEASON
PREPLANT	RIDOMIL 2E	CON	PEPPERS	0.275	\$58.63	\$16.12	
PREPLANT	TREFLAN	CON	PEPPERS	0.275	\$11.01	\$3.03	
7/7/94	RIDOMIL/	CON	PEPPERS	0.275	\$27.94	\$7.68	
8/9/94	COPPER	CON	PEPPERS	0.275	\$27.94	\$7.68	
7/7/94	LANNATE/	CON	PEPPERS	0.275	\$12.94	\$3.56	
7/26/94	90%SP	CON	PEPPERS	0.275	\$12.94	\$3.56	
8/9/94		CON	PEPPERS	0.275	\$12.94	\$3.56	
7/7/94	KOCIDE	CON	PEPPERS	0.275	\$4.40	\$1.21	
			TOTAL		\$168.74		\$46.40
SEASON	RIDOMIL/	SUS	PEPPERS	0.275	\$27.94	\$7.68	\$7.68
PREPLANT	COMMAND	CON	PUMPKINS	0.252	\$23.05	\$5.81	
PLANTING	FURADAN	CON	PUMPKINS	0.252	\$15.55	\$3.92	
9/2/94	RIDOMIL/	CON	PUMPKINS	0.252	\$30.18	\$7.61	
9/10/94	BRAVO	CON	PUMPKINS	0.252	\$30.18	\$7.61	
5/27/94	LANNATE	CON	PUMPKINS	0.252	\$12.94	\$3.26	
6/1/94		CON	PUMPKINS	0.252	\$12.94	\$3.26	
9/2/94		CON	PUMPKINS	0.252	\$12.94	\$3.26	
9/20/94		CON	PUMPKINS	0.252	\$12.94	\$3.26	
			TOTAL		\$150.72		\$37.98
PREPLANT	COMMAND	SUS	PUMPKINS	0.196	\$23.05	\$4.52	
5/27/94	LANNATE	SUS	PUMPKINS	0.196	\$12.94	\$2.54	
6/1/94		SUS	PUMPKINS	0.196	\$12.94	\$2.54	
9/2/94		SUS	PUMPKINS	0.196	\$12.94	\$2.54	
9/2/94	RIDOMIL/	SUS	PUMPKINS	0.196	\$30.18	\$5.92	
			TOTAL		\$92.05		\$18.04
PREPLANT	ATRAZINE	CON	SWEETCORN	0.275	\$4.99	\$1.37	
PREPLANT	DUAL	CON	SWEETCORN	0.275	\$17.10	\$4.70	
PLANTING	FURADAN	CON	SWEETCORN	0.275	\$15.55	\$4.28	
8/3/94	POUNCE	CON	SWEETCORN	0.275	\$11.84	\$3.26	
8/10/94		CON	SWEETCORN	0.275	\$11.84	\$3.26	
8/17/94		CON	SWEETCORN	0.275	\$11.84	\$3.26	
8/13/94	LARVIN	CON	SWEETCORN	0.275	\$24.63	\$6.77	
8/20/94		CON	SWEETCORN	0.275	\$24.63	\$6.77	
8/27/94		CON	SWEETCORN	0.275	\$24.63	\$6.77	
			TOTAL		\$147.05		\$40.44
PREPLANT	ATRAZINE	SUS	SWEETCORN	0.196	\$4.99	\$0.98	
PREPLANT	DUAL	SUS	SWEETCORN	0.196	\$17.10	\$3.35	
PLANTING		SUS	SWEETCORN	0.196	\$0.00	\$0.00	
8/10/94	POUNCE	SUS	SWEETCORN	0.196	\$11.84	\$2.32	
8/17/94		SUS	SWEETCORN	0.196	\$11.84	\$2.32	
8/20/94	LARVIN	SUS	SWEETCORN	0.196	\$24.63	\$4.83	
			TOTAL		\$70.40		\$13.80

CHART 5-94

FERTILIZERS MATTHEWS FARM
 RATES SUGGESTED BY COOP EXT.SERVICE, AGWAY

					COST/ACRE
GROWERS	GAL	\$176.40	3.00	GL/ACRE	\$17.64
N	LB	\$44.15	100.0	LB/ACRE	\$22.08
P	LB	\$66.29	150.0	LB/ACRE	\$33.15
K	LB	\$19.66	70.0	LB/ACRE	\$9.83
MIXTURE	LB	\$130.10	320	LB/ACRE	\$186.29
15-30-15	LB	\$134.85	535.0	LB/ACRE	\$67.24
18-28-13	LB	\$124.53	502.0	LB/ACRE	\$62.27
16-32-16	LB	\$40.49	75.0	LB/ACRE	\$60.74
UREA	LB	\$46.00	448.0	LB/ACRE	\$46.00

FERTILIZER USAGE		COST/ ACRE	CROP	PROJECT ACRES	PROJECT COST	TOTALS PROJECT	TOTAL/ ACRE
75-150-75	CON	\$61.13	PEPPERS	0.275	\$16.81	\$21.58	\$78.48
75-150-75	SUS	\$30.57	PEPPERS	0.275	\$8.41	\$19.58	\$71.20
30#N	CON	\$6.75	PEPPERS	0.275	\$1.86		
GROWER'S	SUS	\$18.45	PEPPERS	0.275	\$5.07		
TRANSPLANT	CON	\$10.60	PEPPERS	0.275	\$2.92		
TRANSPLANT	SUS	\$22.18	PEPPERS	0.275	\$6.10		
75-150-150	CON	\$71.63	PUMPKINS	0.252	\$18.05	\$18.05	\$71.63
75-150-150	SUS	\$71.63	PUMPKINS	0.196	\$14.04	\$14.04	\$71.63
50-50-20	CON	\$103.55	SWEETCORN	0.275	\$28.48	\$30.33	\$110.30
30#N	CON	\$6.75	SWEETCORN	0.275	\$1.86		
50-50-20	SUS	\$103.55	SWEETCORN	0.196	\$20.30	\$20.30	\$103.55

CHART 6-94

SEEDS/ PLANTS		SARE 94 PROJECT				
VARIETY			COST/ ACRE	PROJECT ACRES	# OF PLANTS	PROJECT COST
LADYBELL	25	CON	\$548.73	0.275	1206	\$150.75
	43	SUS	\$930.93	0.275	2046	\$255.75
THOMAS THOMAS		CON	\$111.20	0.252		\$28.02
		SUS	\$111.20	0.196		\$21.80
INCREDIBLE		CON	\$52.50	0.275		\$14.44
		SUS	\$52.50	0.196		\$10.29
RYE		CON	\$22.50	1.004		\$22.59
		SUS	\$22.50	0.94		\$21.15

CHART 8-94

SARE 93/94		PROJECT	CHEMICALS		MATTHEWS	FARM
CHEMICAL		QTY GAL/LBS	QUANTITY COST	RATE /ACRE	COST/ UNIT	COST/ ACRE
ATRAZINE	H	2.5 GAL	\$33.25	1.50 QT/ACRE	\$3.33	\$4.99
DUAL 8E	H	2.5 GAL	\$171.02	2.00 PT/ACRE	\$8.55	\$17.10
FURADAN	I	50 LB	\$97.18	8.00 LB/ACRE	\$1.94	\$15.55
FOUNCE	I	1 GAL	\$189.41	8.00 OZ/ACRE	\$1.48	\$11.84
LARVIN	I	2.5 GAL	\$126.10	25.00 OZ/ACRE	\$0.99	\$24.63
COMMAND	H	1 GAL	\$122.94	1.50 PT/ACRE	\$15.37	\$23.05
RIDOMIL/ BRAVO	F	5 LB	\$75.45	2.00 LB/ACRE	\$15.09	\$30.18
LANNATE 90%SP	I	2.5 GAL	\$129.41	2.00 PT/ACRE	\$6.47	\$12.94
RIDOMIL 2E	F	1 GAL	\$156.35	1.50 QT/ACRE	\$39.09	\$58.63
KOCIDE		10 LB	\$22.00	2.00 LB/ACRE	\$2.20	\$4.40
TREFLAN	H	2.5 GAL	\$88.08	1.25 QT/ACRE	\$8.81	\$11.01
RIDOMIL/ COPPER	F	5 LB	\$55.88	2.50 LB/ACRE	\$11.18	\$27.94
ROUND-UP	H	2.5 GAL	\$121.76	2.00 QT/ACRE	\$12.18	\$24.35
GRAMOXONE	H	2.5 GAL	\$80.55	1.50 PT/ACRE	\$4.03	\$6.04

CHEMICAL RATES RECOMMENDED BY COOP.EXT.SERVICE
WITH INPUT FROM AGWAY,AND MFG. GUIDELINES.

CHART 9-94

S.A.R.E. PROJECT CROP ROTATION

1994

CONVENTIONAL FIELDS

SEVEN YEARS OF ROTATION

fields	1	2	3	4	5	6	7
1	VEGETABLE	CORN	CORN	GRAIN	HAY	HAY	HAY
2	VEGETABLE	PUMPKINS	CORN	GRAIN	HAY	HAY	HAY
3	CORN	GRAIN	HAY	HAY	HAY	VEGETABLE	CORN
4	HAY	VEGETABLE	CORN	CORN	GRAIN	HAY	HAY

(FOR PROJECT, PUMPKINS WERE ACCEPTABLE IN FIELD 2 VS. CORN)

SUSTAINABLE FIELDS

FOUR YEARS OF ROTATION

fields	1	2	3	4	5	6	7
1	PUMPKINS	CORN	PEPPERS	COVER	PUMPKINS	CORN	PEPPERS
2	CORN	PEPPERS	COVER	PUMPKINS	CORN	PEPPERS	COVER
3	PEPPERS	COVER	PUMPKINS	CORN	PEPPERS	COVER	PUMPKINS
4	COVER	PUMPKINS	CORN	PEPPERS	COVER	PUMPKINS	CORN

CHART 10-94



Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park, PA 16802

PLANT TISSUE ANALYSIS FOR:				ADDITIONAL COPY TO:		
Allen Matthews Box 84 Scenery Hill, PA 15360						
				PLANT SAMPLED		
				Peppers		
KIT NUMBER				COUNTY		LAB SAMPLE NO.
39049				Washington		23 19774
SAMPLING DATE	RECEIVED DATE	COMPLETION DATE	FIELD NAME	HOUSE NO.	BENCH NO.	VARIETY
	10/27/93	10/29/93	COV2			Any

PLANT ANALYSIS RESULTS



FERTILIZER RECOMMENDATIONS:

THE FOLLOWING RECOMMENDATIONS ARE BASED ON THE ABOVE LEAF ELEMENT CONCENTRATION AND THE BEST INFORMATION CURRENTLY AVAILABLE. IF THERE ARE ANY QUESTIONS REGARDING THESE RECOMMENDATIONS, PLEASE CONSULT THE COUNTY EXTENSION AGENT IN YOUR AREA.

Nitrogen: Nitrogen value is **NORMAL** (Normal is 3.00 - 4.50 % DW)
No corrective measures needed.

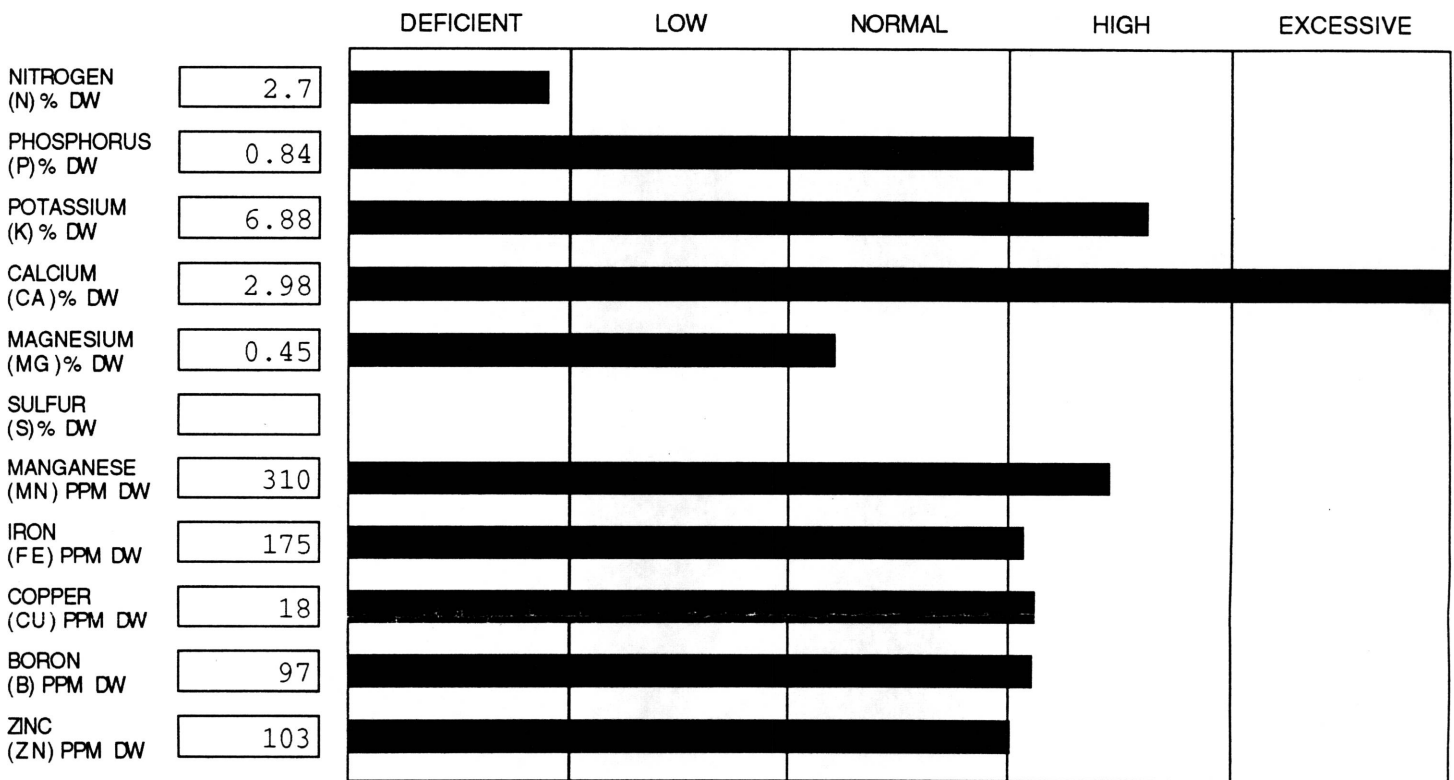
CHART 11-94



Agricultural Analytical Services Laboratory
The Pennsylvania State University
University Park, PA 16802

PLANT TISSUE ANALYSIS FOR:				ADDITIONAL COPY TO:		
Allen Matthews Box 84 Scenery Hill, PA 15360						
				PLANT SAMPLED		
				Peppers		
KIT NUMBER				COUNTY		LAB SAMPLE NO.
39050				Washington		23 19775
SAMPLING DATE	RECEIVED DATE	COMPLETION DATE	FIELD NAME	HOUSE NO.	BENCH NO.	VARIETY
	10/27/93	10/29/93	SUS6			Any

PLANT ANALYSIS RESULTS



FERTILIZER RECOMMENDATIONS:

THE FOLLOWING RECOMMENDATIONS ARE BASED ON THE ABOVE LEAF ELEMENT CONCENTRATION AND THE BEST INFORMATION CURRENTLY AVAILABLE. IF THERE ARE ANY QUESTIONS REGARDING THESE RECOMMENDATIONS, PLEASE CONSULT THE COUNTY EXTENSION AGENT IN YOUR AREA.

Nitrogen: Nitrogen value is **DEFICIENT** (Normal is 3.00 - 4.50 % DW)
At a possible deficiency level.