

Table 10: Product Rate Determination (Continued)

Soybean Site Code	Test Substance & Application Date	Plot	App. No.	Volume			Total Pass Time (sec)	Calibrated Spray Rate (mL/sec)	Spray Mix Applied To Plot (mL) <sup>1</sup>	Treated Area (Acres)	Spray Rate (GPA) <sup>2</sup>	Rate		% of Target <sup>6,7</sup>
				Test Substance (mL)	Carrier (mL)	Total Mixture (mL)						mL/A <sup>3</sup>	lb ai/A <sup>4,5</sup>	
IA01	Esfenvalerate IX 08/26/05	17	1	27	4610	4637	77.98	43.37	3382.0	0.0689	13.0	286.5	0.05	100
IA01	Esfenvalerate IX 09/03/05	17	2	26	4990	5016	77.38	46.9	3629.1	0.0689	13.9	272.7	0.05	100
IA01	Esfenvalerate IX 09/10/05	17	3	31	5970	6001	39.69	93.9	3726.9	0.0689	14.3	279.6	0.05	100
IA01	Esfenvalerate IX 09/16/05	17	4	31	6065	6096	41.00	93.7	3841.7	0.0689	14.7	282.9	0.05	100

<sup>1</sup>Spray Mix Applied to Plot (mL) = Total Pass Times (sec) x Calibrated Spray Rate (mL/sec)

<sup>2</sup>Spray Rate (GPA) =  $\frac{\text{Spray Mix Applied to Plot (mL)}}{3785 \text{ mL/gal}} \times \frac{1}{\text{Treated Area (acres)}}$

<sup>3</sup>Actual Rate mL/A =  $\frac{\text{Test Substance in Spray Mixture (mL)}}{\text{Total Mixture Volume (mL)}} \times \text{Actual Spray Rate (GPA)} \times \frac{3785 \text{ mL}}{1 \text{ gal}}$

<sup>4</sup>Actual Rate lb ai/A Esfenvalerate =  $\frac{\text{Actual Rate mL}}{\text{Acre}} \times \frac{0.66 \text{ lb ai}}{\text{gallon}} \times \frac{1 \text{ gallon}}{3785 \text{ mL}}$

<sup>5</sup>To convert lb ai/A to kg ai/ha, multiply lbs ai/A x 1.121

<sup>6</sup>Percent of Target =  $\frac{\text{Actual Rate (lb ai/A)}}{\text{Target Rate (lb ai/A)}} \times 100$

<sup>7</sup>Soybean Esfenvalerate IX rate = 0.05 lb ai/A

Table 10: Product Rate Determination (Continued)

Soybean Site Code	Test Substance & Application Date	Plot No.	Volume			Total Pass Time (sec)	Calibrated Spray Rate (mL/sec)	Spray Mix Applied To Plot (mL) <sup>1</sup>	Treated Area (Acres)	Spray Rate (GPA) <sup>2</sup>	Rate		% of Target <sup>6,7</sup>
			Test Substance (mL)	Carrier (mL)	Total Mixture (mL)						mL/A <sup>3</sup>	lb ai/A <sup>4,5</sup>	
IA01	Carbofuran 5X 09/10/05	18	130	5870	6000	39.87	93.9	3743.8	0.0689	14.4	1180.9	1.25	100
IA01	Carbofuran 5X 09/16/05	18	130	5960	6090	40.68	93.7	3811.7	0.0689	14.6	1179.6	1.25	100
IA01	Clethodim 1X 08/09/05	18	44	5060	5191	79.78	48.57	3874.9	0.0689	14.9	478.0	0.25	100

<sup>1</sup>Spray Mix Applied to Plot (mL) = Total Pass Times (sec) x Calibrated Spray Rate (mL/sec)

<sup>2</sup>Spray Rate (GPA) =  $\frac{\text{Spray Mix Applied to Plot (mL)}}{3785 \text{ mL/gal}} \times \frac{1}{\text{Treated Area (acres)}}$

<sup>3</sup>Actual Rate mL/A =  $\frac{\text{Test Substance in Spray Mixture (mL)}}{\text{Total Mixture Volume (mL)}} \times \text{Actual Spray Rate (GPA)} \times \frac{3785 \text{ mL}}{1 \text{ gal}}$

<sup>4</sup>Actual Rate lb ai/A =  $\frac{\text{Actual Rate mL}}{\text{Acres}} \times \frac{4 \text{ lb ai}}{\text{gallon}} \times \frac{1 \text{ gallon}}{3785 \text{ mL}} = \frac{\text{Actual Rate mL}}{\text{Acres}} \times \frac{2 \text{ lb ai}}{\text{gallon}} \times \frac{1 \text{ gallon}}{3785 \text{ mL}}$

<sup>5</sup>To convert lb ai/A to kg ai/ha, multiply lbs ai/A x 1.121

<sup>6</sup>Percent of Target =  $\frac{\text{Actual Rate (lb ai/A)}}{\text{Target Rate (lb ai/A)}} \times 100$

<sup>7</sup>Soybean Carbofuran 5X rate = 1.25 lb ai/A Soybean Clethodim 1X rate = 0.25 lb ai/A

**Table 10: Product Rate Determination (Continued)**

Soybean Site Code	Test Substance & Application Date	Plot	App. No.	Volume			Total Pass Time (sec)	Calibrated Spray Rate (mL/sec)	Spray Mix Applied To Plot (mL) <sup>1</sup>	Treated Area (Acres)	Spray Rate (GPA) <sup>2</sup>	Rate		% of Target <sup>6,7</sup>
				Test Substance (mL)	Carrier (mL)	Total Mixture (mL)						mL/A <sup>3</sup>	Actual lb ai/A <sup>4,5</sup>	
IA01	Esfenvalerate 5X 08/26/05	18	1	130	4500	4630	80.16	43.37	3476.5	0.0689	13.3	1413.4	0.25	100
IA01	Esfenvalerate 5X 09/03/05	18	2	130	4880	5010	79.58	46.9	3732.3	0.0689	14.3	1404.5	0.24	96
IA01	Esfenvalerate 5X 09/10/05	18	3	156	5850	6006	39.79	93.9	3736.3	0.0689	14.3	1405.9	0.25	100
IA01	Esfenvalerate 5X 09/16/05	18	4	156	5940	6096	39.95	93.7	3743.3	0.0689	14.4	1394.8	0.24	96

<sup>1</sup>Spray Mix Applied to Plot (mL) = Total Pass Times (sec) x Calibrated Spray Rate (mL/sec)

<sup>2</sup>Spray Rate (GPA) =  $\frac{\text{Spray Mix Applied to Plot (mL)}}{3785 \text{ mL/gal}} \times \frac{1}{\text{Treated Area (acres)}}$

<sup>3</sup>Actual Rate mL/A =  $\frac{\text{Test Substance in Spray Mixture (mL)}}{\text{Total Mixture Volume (mL)}} \times \text{Actual Spray Rate (GPA)} \times \frac{3785 \text{ mL}}{1 \text{ gal}}$

<sup>4</sup>Actual Rate lb ai/A Estenvalerate =  $\frac{\text{Actual Rate mL}}{\text{Acre}} \times \frac{0.66 \text{ lb ai}}{\text{gallon}} \times \frac{1 \text{ gallon}}{3785 \text{ mL}}$

<sup>5</sup>To convert lb ai/A to kg ai/ha, multiply lbs ai/A x 1.121

<sup>6</sup>Percent of Target =  $\frac{\text{Actual Rate (lb ai/A)}}{\text{Target Rate (lb ai/A)}} \times 100$

<sup>7</sup>Soybean Estenvalerate 5X rate = 0.25 lb ai/A

Table 11: Environmental Conditions at Application

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
AR01 Rice	2	Mancozeb (1X)	1	05/16/05				Not applicable, seed treatment.			
		Malathion (5X)	1	08/22/05	88	84	Wet	0-1	SW	75	Mature rice heads, plants 34-38 in.
		Malathion (5X)	2	08/29/05	78	81	Wet	1-2	N	95	Mature grain
		Malathion (5X)	3	09/05/05	66	73	Dry	0-1	SW	98	Mature grain
		Malathion (5X)	4	09/12/05	65	75	Dry	0-1	SW	98	Mature grain
		Malathion (5X)	5	09/19/05	85	84	Dry	1-2	SW	62	Mature grain
		Carbofuran (5X)	1	07/28/05	73	80	Wet	1-2	SW	72	Pre-heading

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
AR01 Rice	3	Mancozeb (5X)	1	05/16/05				Not applicable, seed treatment.			
		Malathion (1X)	1	08/22/05	88	84	Wet	0-1	SW	75	Mature rice heads Plants 34-38 in.
		Malathion (1X)	2	08/29/05	78	81	Wet	1-2	N	95	Mature grain
		Malathion (1X)	3	09/05/05	66	73	Dry	0-1	SW	98	Mature grain
		Malathion (1X)	4	09/12/05	65	75	Dry	0-1	SW	98	Mature grain
		Malathion (1X)	5	09/19/05	85	84	Dry	1-2	SW	62	Mature grain

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil		(mph)	Direction		
CA01 Rice	5	Mancozeb (1X)	1	05/19/05				Not applicable, seed treatment.			
		Malathion (5X)	1	08/19/05	59	60	Wet	0	N/A	40	Heading
		Malathion (5X)	2	08/30/05	61	61	Wet	1	NW	40	Heading
		Malathion (5X)	3	09/09/05	71	60	Wet	2	NW	30	Heading, milk
		Malathion (5X)	4	09/19/05	79	62	Wet	0	N/A	20	Headed
		Malathion (5X)	5	09/29/05	88	70	Moist	0	N/A	20	Drying down
		Carbofuran (5X)	1	08/07/05	73	66	Wet	0	N/A	30	Tillering

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
CA01 Rice	6	Mancozeb (5X)	1	05/19/05				Not applicable, seed treatment.			
		Malathion (1X)	1	08/19/05	59	60	Wet	0	N/A	40	Heading
		Malathion (1X)	2	08/30/05	61	61	Wet	1	NW	40	Heading
		Malathion (1X)	3	09/09/05	71	60	Wet	2	NW	30	Heading, milk
		Malathion (1X)	4	09/19/05	79	62	Wet	0	N/A	20	Headed
		Malathion (1X)	5	09/29/05	88	70	Moist	0	N/A	20	Drying down

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
ND01 Wheat	8	Carbofuran (1X)	1	08/05/05	81	68	Dry	3-4	S	35	Late milk
		Carbofuran (1X)	2	08/12/05	65	65	Wet	4-5	W	66	Dough
		Mancozeb (5X)	1	07/24/05	90	90	Dry	1-2	SW	45	Early milk
		Mancozeb (5X)	2	07/31/05	89	93	Dry	4-5	N	43	Mid milk
		Mancozeb (5X)	3	08/07/05	89	85	Dry	3-4	SE	58	Early dough
		Carbofuran (5X)	1	08/05/05	81	68	Dry	3-4	S	35	Late milk
	9	Carbofuran (5X)	2	08/12/05	65	65	Wet	4-5	W	66	Dough
		Mancozeb (1X)	1	07/24/05	90	90	Dry	1-2	SW	45	Early milk
		Mancozeb (1X)	2	07/31/05	89	93	Dry	4-5	N	43	Mid milk
		Mancozeb (1X)	3	08/07/05	89	85	Dry	3-4	SE	58	Early dough

<sup>1</sup>Soil temperature taken at 2".



Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
MO01 Wheat	11	Carbofuran (1X)	1	06/18/05	83	82	Dry	1.5	S	30	Mature, ~30" tall Late milk, early dough
			2	06/29/05	89	83	Dry	1.6-2.1	W	55	~30" tall, late dough
		Mancozeb (5X)	1	06/11/05	85	69	Wet	3.1	SE	45	BBCH 69-70, Late to complete flowering
			2	06/18/05	83	82	Dry	1.5	S	30	Mature, ht. ~30" Late milk, early dough
		Mancozeb (5X)	3	06/24/05	86	96	Dry	1.2	S	34	30" tall, dough

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
MO01 Wheat	12	Carbofuran (5X)	1	06/18/05	83	82	Dry	1.5	S	30	Mature, ht. ~30" Late milk, early dough
			2	06/29/05	89	83	Dry	1.6-2.1	W	55	~30" tall, late dough
		Mancozeb (1X)	1	06/11/05	85	69	Wet	3.1	SE	45	BBCH 69-70, Late to complete flowering
			2	06/18/05	83	82	Dry	1.5	S	30	Mature, ht. ~30" Late milk, early dough
			3	06/24/05	86	96	Dry	1.2	S	34	30" tall, dough

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
AR02 Soybean	14	Carbofuran (1X)	1	09/01/05	66	74	Moist	0-1	SW	95	R6
		Carbofuran (1X)	2	09/08/05	66	75	Dry	1-2	SW	90	R7
		Clethodim (5X)	1	07/31/05	91	98	Dry	2-3	SW	45	R5
		Esfenvalerate (1X)	1	08/17/05	78	84	Dry	0-1	SW	85	R5
		Esfenvalerate (1X)	2	08/25/05	90	94	Dry	0-1	SW	64	R6
		Esfenvalerate (1X)	3	09/01/05	66	74	Moist	0-1	SW	95	R6
		Esfenvalerate (1X)	4	09/08/05	66	75	Dry	1-2	SW	90	R7

<sup>1</sup>Soil temperature taken at 2".

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
AR02 Soybean	15	Carbofuran (5X)	1	09/01/05	66	74	Moist	0-1	SW	95	R6
			2	09/08/05	66	75	Dry	1-2	SW	90	R7
		Clethodim (1X)	1	07/31/05	91	98	Dry	2-3	SW	45	R5
			1	08/17/05	78	84	Dry	0-1	SW	85	R5
		Esfenvalerate (5X)	2	08/25/05	90	94	Dry	0-1	SW	64	R6
			3	09/01/05	66	74	Moist	0-1	SW	95	R6
		Esfenvalerate (5X)	4	09/08/05	66	75	Dry	1-2	SW	90	R7

<sup>1</sup>Soil temperature taken at 2”.

Table 11: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
IA01 Soybean	17	Carbofuran (1X)	1	09/10/05	87	72	Moist	4.8	S	42	R6, 40"
			2	09/16/05	79	67	Dry	1.1	N	30	R6.5, ~40"
		Clethodim (5X)	1	08/09/05	89	76	Dry	2.0	S	55	R4, 32-34"
			1	08/26/05	77	68	Moist	1.4	SW	56	R5, ~40"
		Esfenvalerate (1X)	2	09/03/05	86	68	Dry	2.1	SE	36	R5.5-R6, 43"
			3	09/10/05	87	72	Moist	4.8	S	42	R6, 40"
		Esfenvalerate (1X)	4	09/16/05	79	67	Dry	1.1	N	30	R6.5, ~40"

<sup>1</sup>Soil temperature taken at 2".

Table 1.1: Environmental Conditions at Application (Continued)

Site Code/ Crop	Plot	Site Test Compound	Application		Temp °F		Soil Surface	Winds		RH%	Crop Stage
			No.	Date	Air	Soil <sup>1</sup>		(mph)	Direction		
IA01 Soybean	18	Carbofuran (5X)	1	09/10/05	87	72	Moist	4.8	S	42	R6, 40"
		Carbofuran (5X)	2	09/16/05	79	67	Dry	1.1	N	30	R6.5, ~40"
		Clethodim (1X)	1	08/09/05	89	76	Dry	2.0	S	55	R4, 32-34"
		Esfenvalerate (5X)	1	08/26/05	77	68	Moist	1.4	SW	56	R5, ~40"
		Esfenvalerate (5X)	2	09/03/05	86	68	Dry	2.1	SE	36	R5.5-R6, 43"
		Esfenvalerate (5X)	3	09/10/05	87	72	Moist	4.8	S	42	R6, 40"
		Esfenvalerate (5X)	4	09/16/05	79	67	Dry	1.1	N	30	R6.5, ~40"

<sup>1</sup>Soil temperature taken at 2".

Table 12: Current and Historical Weather

SITE AR01

Parameter	Time Period	May	Jun	Jul	Aug	Sep
Mean Min Air Temp (°F)	2005 <sup>1</sup>	58	68	71	72	65
	10-Year <sup>2</sup>	61	69	73	71	65
	Difference	-3	-1	-2	1	0
Mean Max Air Temp (°F)	2005 <sup>1</sup>	83	93	92	94	90
	10-Year <sup>2</sup>	81	89	92	91	84
	Difference	2	4	0	3	6
Monthly Rainfall (inches)	2005 <sup>1</sup>	1.51	1.01	4.98	3.93	3.59
	10-Year <sup>2</sup>	4.98	3.57	3.79	3.43	3.53
	Difference	-3.47	-2.56	1.19	0.5	0.06
Irrigation (inches)	2005	0	27	25	20	0

<sup>1</sup>2005 temperature and precipitation data for Site AR01 obtained from Mid-South Ag Research, Inc., On-Site Weather Station located approximately 0.25 mile north of the trial site.

<sup>2</sup>Historical temperature and precipitation data for Site AR01 obtained from NOAA Weather Station No. 5954-04, Memphis, TN; located approximately 15 miles east of the trial site.

SITE CA01

Parameter	Time Period	May	Jun	Jul	Aug	Sep	Oct	
Mean Min Air Temp (°F)	2005 <sup>3</sup>	53	56	64	59	52	47	
	30-Year <sup>4</sup>	51	55	62	59	55	51	
	Difference	2	1	2	0	-3	-4	
Mean Max Air Temp (°F)	2005 <sup>3</sup>	77	82	95	93	84	78	
	30-Year <sup>4</sup>	81	89	94	93	89	85	
	Difference	-4	-7	1	0	-5	-7	
Monthly Rainfall (inches)	2005 <sup>3</sup>	0.04	0.52	0	0	0	0	
	30-Year <sup>4</sup>	0.92	0.5	0.04	0.15	0.53	0.11	
	Difference	-0.88	0.02	-0.04	-0.15	-0.53	-0.11	
Irrigation (inches)	2005	Continuous flood at 4" level.					Drydown beginning in early September.	

<sup>3</sup>2005 temperature and precipitation data for Site CA01 obtained from ORLAND2.A, CIMIS #61, Orland Weather Station, located approximately 8 miles northeast of the trial site.

<sup>4</sup>Historical temperature and precipitation data for Site CA01 obtained from CHICO.C, NCDC #1715, CSU Chico University Farm Weather Station, located approximately 12 miles northwest of the trial site.

Table 12: Current and Historical Weather (Continued)

SITE ND01

SITE ND01 Parameter	Time Period	May	Jun	Jul	Aug	Sep
Mean Min Air Temp (°F)	2005 <sup>1</sup>	44	60	60	57	51
	10-Year <sup>1</sup>	45	55	59	57	46
	Difference	-1	5	1	0	5
Mean Max Air Temp (°F)	2005 <sup>1</sup>	65	77	83	80	75
	10-Year <sup>1</sup>	70	77	82	81	70
	Difference	-5	0	1	-1	5
Monthly Rainfall (inches)	2005 <sup>2</sup>	1.76	8.33	3.41	6.20	2.90
	10-Year <sup>1</sup>	2.61	3.51	2.88	2.52	2.18
	Difference	-0.85	4.82	0.53	3.68	0.72
Irrigation (inches)	2005	No irrigation applied.				

<sup>1</sup>2005 temperature and historical temperature and precipitation data for Site ND01 obtained from Fargo Hector International Airport NOAA Weather Station, located approximately 19 miles south of the trial site.

<sup>2</sup>2005 precipitation data for Site ND01 obtained from on-site rain gauge. Note: rainfall data from 5/01/05 to 5/07/05 obtained from Fargo Hector Airport; from 7/31/05 to 8/31/05 obtained from Scott Galde Site, 4 miles away.

SITE MO01

Parameter	Time Period	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Mean Min Air Temp (°F)	2005 <sup>3</sup>	35	19	18	25	29	45	50	63	65
	10-Year <sup>4</sup>	30	21	17	23	28	40	52	61	67
	Difference	5	-2	1	2	1	5	-2	2	-2
Mean Max Air Temp (°F)	2005 <sup>3</sup>	52	39	33	44	49	65	73	85	90
	10-Year <sup>4</sup>	50	38	33	41	50	63	72	81	86
	Difference	2	1	0	3	-1	2	1	4	4
Monthly Rainfall (inches)	2005 <sup>3</sup>	2.91	0.89	2.39	1.4	1.47	1.95	2.76	5.12	0.65
	10-Year <sup>4</sup>	2.02	1.29	0.85	1.31	1.81	4.22	6.05	4.71	4.52
	Difference	0.89	-0.4	1.54	0.09	-0.34	-2.27	-3.29	0.41	-3.87
Irrigation (inches)	2005	No irrigation applied.								

<sup>3</sup>2005 temperature and precipitation data for site MO01 obtained from BARC On-Site Weather Station, located 200 feet from the trial site, and 5 miles west of NOAA Kirksville, MO Station #234544

<sup>4</sup>Historical temperature and precipitation data for site MO01 obtained from NOAA Kirksville, MO Station # 234544, located 5 miles west of the trial site.



Table 12: Current and Historical Weather (Continued)

SITE AR02

Parameter	Time Period	May	Jun	Jul	Aug	Sep
Mean Min Air Temp (°F)	2005 <sup>1</sup>	58	68	71	72	65
	10-Year <sup>2</sup>	61	69	73	71	65
	Difference	-3	-1	-2	1	0
Mean Max Air Temp (°F)	2005 <sup>1</sup>	83	93	92	94	90
	10-Year <sup>2</sup>	81	89	92	91	84
	Difference	2	4	0	3	6
Monthly Rainfall (inches)	2005 <sup>1</sup>	1.51	1.01	4.98	3.93	3.59
	10-Year <sup>2</sup>	4.98	3.57	3.79	3.43	3.53
	Difference	-3.47	-2.56	1.19	0.5	0.06
Irrigation (inches)	2005	No irrigation applied.				

<sup>1</sup>2005 temperature and precipitation data for Site AR02 obtained from Mid-South Ag Research, Inc., On-Site Weather Station located approximately 3 miles west of the trial site.

<sup>2</sup>Historical temperature and precipitation data for Site AR02 obtained from NOAA Weather Station No. 5954-04, Memphis, TN; located approximately 15 miles east of the trial site.

SITE IA01

Parameter	Time Period	Jun	Jul	Aug	Sep	Oct
Mean Min Air Temp (°F)	2005 <sup>3</sup>	63	65	63	56	43
	10-Year <sup>4</sup>	60	66	64	52	43
	Difference	3	-1	-1	4	0
Mean Max Air Temp (°F)	2005 <sup>3</sup>	88	90	89	84	67
	10-Year <sup>4</sup>	81	87	85	77	65
	Difference	7	3	4	7	2
Monthly Rainfall (inches)	2005 <sup>3</sup>	3.04	2.48	3.23	3.11	1.64
	10-Year <sup>4</sup>	4.45	2.84	3.83	2.85	3.71
	Difference	-1.41	-0.36	-0.6	0.26	-2.07
Irrigation (inches)	2005	No irrigation applied.				

<sup>3</sup>2005 temperature and precipitation data for site IA01 obtained from BARC Weather Station, located approximately 0.5 miles from the trial site.

<sup>4</sup>Historical temperature and precipitation data for site IA01 obtained from Fairfield, Iowa Station 13092789, located approximately 12 miles south of the trial site.

Table 13: Sampling

Site Code	Sample Number	Plot ID	Sample Collection Date (2005)	Sample Size (kg)	Time from Sampling to Freezer
AR01	25060-AR01-1	UTC Plot 1	09/24	18.1	Not frozen <sup>1</sup>
	25060-AR01-2	TRT Plot 2	09/24	18.1	Not frozen <sup>1</sup>
	25060-AR01-3	TRT Plot 3	09/24	18.1	Not frozen <sup>1</sup>
CA01	25060-CA01-4	UTC Plot 4	10/07	12	1 hr 40 min <sup>2</sup>
	25060-CA01-5	TRT Plot 5	10/07	12	40 min <sup>2</sup>
	25060-CA01-6	TRT Plot 6	10/07	12	40 min <sup>2</sup>
ND01	25060-ND01-7	UTC Plot 7	09/02	15	1 hr
	25060-ND01-8	TRT Plot 8	09/02	15	20 min
	25060-ND01-9	TRT Plot 9	09/02	15	20 min
MO01	25060-MO01-10	UTC Plot 10	07/21	17	6 hr 20 min <sup>3</sup>
	25060-MO01-11	TRT Plot 11	07/21	16.2	4 hr <sup>3</sup>
	25060-MO01-12	TRT Plot 12	07/21	16.0	4 hr <sup>3</sup>
AR02	25060-AR02-13	UTC Plot 13	09/28	11.4	35 min
	25060-AR02-14	TRT Plot 14	09/28	11.4	15 min
	25060-AR02-15	TRT Plot 15	09/28	11.4	15 min
IA01	25060-IA01-16	UTC Plot 16	10/10	11.0	23 min
	25060-IA01-17	TRT Plot 17	10/10	11.0	11 min
	25060-IA01-18	TRT Plot 18	10/10	11.4	11 min

<sup>1</sup>Samples were kept ambient (air conditioned) until shipment to processor on September 26, 2005.

<sup>2</sup>Samples were immediately placed in coolers with substitute ice.

<sup>3</sup>Samples were immediately placed in coolers with dry ice for transport.

Table 14: Sample Storage and Shipping

Site Code	Plot ID and Sample Number	Collection Date (2005)	Storage Interval (Days)	Test Site Storage Temp		Date Shipped to Sponsor (2005)	Date Received by Sponsor (2005)
				Min °C	Max °C		
AR01	UTC Plot 1: 25060-AR01-1	09/24	16	-23	-4	10/10	10/14
	TRT Plot 2: 25060-AR01-2	09/24	16	-23	-4	10/10	10/14
	TRT Plot 3: 25060-AR01-3	09/24	16	-23	-4	10/10	10/14
CA01	UTC Plot 4: 25060-CA01-4	10/07	66	-23	-7	12/12	12/16
	TRT Plot 5: 25060-CA01-5	10/07	66	-23	-7	12/12	12/16
	TRT Plot 6: 25060-CA01-6	10/07	66	-23	-7	12/12	12/16
ND01	UTC Plot 7: 25060-ND01-7	09/02	17	-25	-16	09/19	09/27
	TRT Plot 8: 25060-ND01-8	09/02	17	-24	-16	09/19	09/27
	TRT Plot 9: 25060-ND01-9	09/02	17	-24	-16	09/19	09/27
MO01	UTC Plot 10: 25060-MO01-10	07/21	11	-26	-19	08/01	08/11
	TRT Plot 11: 25060-MO01-11	07/21	11	-28	-7	08/01	08/11
	TRT Plot 12: 25060-MO01-12	07/21	11	-28	-7	08/01	08/11
AR02	UTC Plot 13: 25060-AR02-13	09/28	20	-23	-4	10/18	10/24
	TRT Plot 14: 25060-AR02-14	09/28	20	-23	-4	10/18	10/24
	TRT Plot 15: 25060-AR02-15	09/28	20	-23	-4	10/18	10/24
IA01	UTC Plot 16: 25060-IA01-16	10/10	7	-28	-15	10/17	10/20
	TRT Plot 17: 25060-IA01-17	10/10	7	-29	-13	10/17	10/20
	TRT Plot 18: 25060-IA01-18	10/10	7	-29	-13	10/17	10/20

V. FIGURES