



## 2006 State Extension Cotton Research Report

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An effective cotton integrated pest management program encompasses all aspects of production. This report contains summarized data from experiments and demonstrations intended to address key production issues in the areas of variety selection, weed control, agronomics (plant population, tillage, fertility) and defoliation.

2006 was another interesting year for Oklahoma cotton producers. No rainfall was recorded from October 11, 2005 until March 17, 2006 (158 days). By the first of May most areas had received about 3 inches. The lack of deep soil moisture created difficult planting conditions for most producers. Fortunately the month of May brought another 3 inches of rain which helped establish the crop. Unfortunately, rainfall for June, July and August totaled 2-3 inches in most areas. This practically eliminated most dryland stands around the state. The dry conditions were so extreme that many irrigated producers also struggled to maintain sufficient soil moisture. September rains brought some relief, however the acreage that was helped most by these rains produced a very late and immature crop causing some producers to wait much longer than usual before applying harvest aids. Due to the drought, a limited number of dryland acres were harvested around the state and irrigated fields with limited water supplies suffered tremendously. Fields with sufficient irrigation yielded well and usually produced good quality lint. Eleven dryland variety trials were planned, however due to poor planting conditions only 9 were planted. Unfortunately 5 of these locations were lost to drought prior to harvest and the remaining 4 locations produced data with excessive variation therefore that information will not be reported.

It should be emphasized that the data from only one year should not be used for major production decisions, and at least 2-3 year's results should be utilized before production practices should be modified. This report includes data generated from "off-label" applications or practices. Although this data is presented, OSU does not recommend the implementation of any "off-label" use of any product.

We are very appreciative of the contributions made by the OSU Integrated Pest Management Program. Without their support, much of this work would not be possible. We also appreciate the support from producers, County Extension Educators, OSU Agricultural Experiment Station and ginners. Cotton Incorporated, through the Oklahoma State Support Committee, has provided assistance through partial funding of several projects. The Oklahoma Cotton Council and the Oklahoma Center for the Advancement of Science and Technology (OCAST) have made tremendous contributions to our educational programs and we are grateful for their continued support. A special thanks goes also to the following organizations, whose contributions make it possible to maintain and expand our research and demonstration programs and distribute results.

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Worrell Farms

We appreciate the interest, cooperation and support of all those involved in the cotton industry in Oklahoma and encourage your comments and suggestions for the improvement of our programs. This report can be accessed on the web at <http://www.osu.altus.ok.us>

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Bill Grossman, Yukon  
Wayne Winsett-Altus  
Mock Farms-Altus

# Irrigation and Weather Records

Western Oklahoma State College (WOSC) - Altus  
 2 inches each date: 6/29, 7/10, 7/17, 7/26, 8/3, 8/10, 8/16, 8/23

OSU Southwest Research & Extension Center (OSUREC) - Altus  
 3.5 inches each date: 6/27, 7/6, 7/18, 7/27, 8/3, 8/10,

Month	Apr.06			May.06			Jun.06		
Date	Air Temp.(F)			Air Temp. (F)			Air Temp. (F)		
	Max.	Min.	Precip.	Max.	Min.	Precip	Max.	Min.	Precip.
1	88	55	0	83	51	0	88	64	0
2	84	53	1.08	86	57	0	89	65	0
3	68	52	0	86	60	0.86	92	61	0
4	74	44	0	74	59	0.01	104	66	0
5	87	47	0	67	57	0	106	68	0
6	82	57	0	61	53	0.62	99	74	0
7	76	51	0	74	53	0.24	98	69	0
8	69	45	0	87	57	0.14	96	64	0
9	81	41	0	86	61	0	102	64	0
10	84	45	0	71	59	0.24	104	73	0
11	86	53	0	78	48	0	105	71	0
12	91	55	0	89	50	0	98	75	0
13	94	58	0	91	54	0	98	69	0
14	95	60	0	81	59	0	99	66	0
15	100	63	0	78	50	0	102	67	0
16	93	53	0	84	50	0	98	72	0
17	101	52	0	89	50	0	94	71	0.12
18	89	53	0	95	53	0	101	64	0
19	75	52	0	102	59	0	103	70	0
20	70	51	0	104	60	0	97	70	0
21	83	49	0	100	65	0	100	71	0
22	89	53	0	95	63	0	88	75	0.02
23	93	63	0	96	67	0	87	66	0
24	96	64	0	98	68	0	90	67	0
25	69	46	0	101	68	0	92	69	0
26	71	41	0	100	69	0	88	67	0
27	82	43	0	97	73	0	92	59	0
28	76	49	0.7	96	71	0.04	97	62	0
29	71	55	0.19	97	71	0	97	64	0
30	88	45	0	96	70	0	98	67	0
31				84	64	0.87			
<b>Totals</b>	83.5	51.6	1.97	87.9	59.6	3.02	96.7	67.7	0.14

Month	Jul.06			Aug.06			Sep.06		
Date	Air Temp.(F)			Air Temp. (F)			Air Temp. (F)		
	Max.	Min.	Precip.	Max.	Min.	Precip	Max.	Min.	Precip.
1	99	69	0	103	80	0	92	69	0
2	98	70	0	103	76	0	69	68	0.67
3	99	73	0	104	78	0	68	62	0.33
4	99	72	0	101	72	0.32	78	62	0.24
5	92	72	0	103	70	0	80	62	0
6	94	67	0.02	106	74	0	82	55	0
7	93	69	0	102	74	0	85	59	0
8	97	62	0	104	73	0	89	61	0
9	101	70	0	104	77	0	87	62	0
10	104	77	0	105	78	0	83	63	0
11	102	71	0.88	98	77	0	82	64	0.71
12	101	73	0	104	77	0.01	80	63	0
13	107	75	0	103	75	0	83	56	0
14	106	76	0	102	76	0	89	57	0
15	104	71	0.03	94	73	0	95	59	0
16	106	73	0	98	72	0.12	95	67	1.25
17	108	75	0	103	70	0.01	71	57	0
18	109	75	0	104	71	0	77	48	0
19	106	74	0	104	75	0	81	50	0
20	107	74	0	100	74	0	88	54	0
21	105	74	0	93	71	0.16	84	57	0.16
22	94	71	0	83	70	0.27	91	54	0
23	94	70	0	98	71	0.17	79	56	0
24	98	66	0	105	72	0	74	49	0
25	106	72	0	106	75	0	83	44	0
26	105	74	0	102	76	0	89	45	0
27	107	74	0	80	72	0.05	91	52	0.01
28	103	77	0	90	71	0.78	71	53	0
29	101	76	0	83	64	0	89	47	0
30	103	76	0	90	63	0	96	47	0
31	104	79	0	98	65	0			
<b>Totals</b>	101.6	72.4	0.93	99	73	1.89	83.3	56.7	3.37

# Table of Contents

Irrigation & Weather Information	3
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## Variety Performance Projects

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### *Irrigated*

Jackson County Variety Trial – I (WOSC)	7
Jackson County Variety Trial – II (Felty)	8
Jackson County Variety Trial – III (OSUREC)	8
Beckham County Variety Trial (Gamble)	9

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## Weed Control Projects

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Staple in RR Flex Cotton for Morningglory	10
Syngenta Programs for Morningglory	13
RR Flex Weed Control Systems	15
Roundup WeatherMax/Prowl Over-the-Top for Morningglory Control	17
Postdirected Programs for Morningglory Control	19
Economics of a Roundup Ready Flex Morningglory Control Program	20
Economics of a Liberty Link/Ignite Morningglory Control Program	23
Alternative Pigweed Control Options in a Roundup Ready Flex Program	26
Large-plot Morningglory Control Demonstration	28

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## Agronomic Projects

---

Fertility Programs Using Coron	30
The Effects of Tankmixing Quadris with Plant Growth Regulators	33
Mepex Ginout Plant Growth Regulator	35
Stance Plant Growth Regulator	38
Substituting Cotton Seed Meal for Fertilizer on Cotton	40
The Effects of Initiating Irrigation Pre and Post-bloom	41
Using Temik in Combination with Seed Treatments	42

## Harvest Aids Performance Projects

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Blizzard Defoliation Trial	44
ET Defoliation Trial	47
Finish Defoliation in Irrigated Cotton Trial	51
Finish Defoliation in Dryland Cotton Trial	53
FirstPick Defoliation Trial	55
Resource Defoliation Trial	59

# Variety Performance

Variety selection continues to be an important decision for cotton producers in Oklahoma. Although most newly released varieties have been tested prior to their commercial release, most cotton producers have had little experience with those varieties on their farms. Therefore, seventeen variety trials were established throughout Oklahoma comparing newly released varieties to Oklahoma standards. Unfortunately, 13 of the sites were lost due to bad weather (drought, storms etc.). The remaining four were irrigated sites.

Each irrigated location (3 in Jackson and 1 in Beckham County) was a replicated trial comparing 20 of the following 21 varieties (FM 955 LLB2 or 989B2R were included per farmer requests):

ST 5599 BR ST 4554 B2F ST 4357 B2F ST 4700 B2F DP 117 B2F DP 143 B2F  
 DP 164 B2F DP 444 BR DP 445 BR DP 455 BR DP 488 BR DP 515 BR PM 3535 BR  
 FM 955 LLB2 FM 960 B2R FM 989 B2R FM 9063 B2F PHY 370 WR PHY 470 WR  
 PHY 480 WR and PHY 485 WRF

Results varied across location as a result of scattered rainfall patterns within the growing season and varying soil types. Overall, Stoneville's 5599 BR consistently ranked the highest compared to the other 20 varieties across all locations. Tables 1-5 show detailed information for each location mentioned above.

**Table 1. Jackson County Irrigated Trial-1**

Planted: May 16<sup>th</sup> Harvested: November 10<sup>th</sup> Soil Type: Clay Loam

Rank	Variety Name	Seed Cot		Gin		Lint Yield		Fiber Data			
		lbs/A		Percent		lbs/A	Mic	Length	Unif	Strength	
1	ST 5599 BR	5728.14071	a	0.224	c	<b>1283</b>	a	4.9	1.14	83.2	28.1
2	PHY 485 WRF	5494.00543	ab	0.222	e	<b>1220</b>	ab	5.3	1.16	83.6	33.9
3	PHY 370 WR	5303.43022	abc	0.223	d	<b>1183</b>	abc	4.9	1.13	83.7	27.7
4	DP 445 BR	5003.95558	b-e	0.226	a	<b>1131</b>	bcd	5.1	1.16	84.3	31.1
5	DP 455 BR	5003.95558	b-e	0.225	b	<b>1126</b>	b-e	5	1.13	82.3	29.2
6	ST 4554 B2RF	5265.31547	a-d	0.211	g	<b>1111</b>	b-f	4.5	1.16	82.7	30.2
7	DP 488 BR	5020.29054	b-e	0.214	f	<b>1074</b>	c-g	4.8	1.19	83.1	30.2
8	DP 515 BR	5085.63039	b-e	0.208	h	<b>1058</b>	c-h	4.1	1.14	82.5	31.2
9	DP 164 B2RF	5722.6954	a	0.177	q	<b>1013</b>	d-i	3.5	1.26	82.5	28.4
10	FM 960 B2R	4982.1753	b-f	0.201	k	<b>1001</b>	e-i	3.7	1.22	82.2	31.1
11	ST 4700 B2RF	4856.94043	c-f	0.205	i	<b>996</b>	f-i	4.9	1.17	83.5	27
12	DP 444 BR	4383.22554	fg	0.222	e	<b>973</b>	g-j	4.3	1.13	83.1	27.8
13	DP 143 B2RF	4807.93554	c-f	0.202	j	<b>971</b>	g-j	4.4	1.16	82.2	30.6
14	PHY 470 WR	5504.89606	ab	0.174	r	<b>958</b>	g-k	3.8	1.18	83.8	29.8
15	ST 4357 B2RF	5167.3052	a-e	0.185	l	<b>956</b>	g-k	4	1.17	82.6	28.8
16	FM 955 LLB2	5140.08059	a-e	0.181	o	<b>930</b>	h-k	4.1	1.21	83.9	31
17	DP 117 B2RF	5009.40089	b-e	0.18	p	<b>902</b>	ijk	4.5	1.18	83.2	34.5
18	PM 3535 BR	4138.20061	g	0.214	f	<b>886</b>	ijk	3.8	1.21	81.7	29
19	PHY 480 WR	4666.36521	d-g	0.183	m	<b>854</b>	jk	5	1.16	83.6	30.8
20	FM 9063 B2RF	4611.9155	efg	0.182	n	<b>839</b>	k	4.1	1.21	83.3	31.2
LSD (P=.10)		620.637635		0		128.6					
CV		10.41		0		10.63					
Means followed by same letter do not significantly differ (P=.10, LSD)											

**Table 2. Jackson County Irrigated Trial-2**Planted: May 18<sup>th</sup> Harvested: December 12<sup>th</sup> Soil Type: Clay Loam

Rank	Variety Name	Seed Cotton		Gin		Lint Yield		Fiber Data			
		lbs/A		Percent		lbs/A	Mic	Length	Unif	Strength	
1	DP 488 BR	3816.945	ab	0.265	d	<b>1011</b>	a	5	1.11	83.5	27.4
2	DP 515 BR	3522.915	a-e	0.287	a	<b>1011</b>	a	4.7	1.1	82.3	28.1
3	ST 4554 B2RF	3708.045	abc	0.264	e	<b>979</b>	ab	4.6	1.11	82.8	30.2
4	DP 143 B2RF	3925.845	a	0.245	h	<b>962</b>	ab	4.5	1.13	80.5	24.9
5	ST 5599 BR	3637.26	abc	0.255	f	<b>928</b>	abc	4.7	1.08	81.8	32.3
6	ST 4357 B2RF	3822.391	ab	0.236	j	<b>902</b>	abc	4.8	1.1	82	25.5
7	DP 164 B2RF	3620.925	a-d	0.244	i	<b>884</b>	bcd	4.5	1.15	82.1	28.1
8	ST 4700 B2RF	3207.105	c-f	0.267	c	<b>856</b>	b-e	4.4	1.14	84	25.4
9	PHY 370 WR	3294.225	cde	0.253	g	<b>833</b>	c-f	5	1.07	83.5	29.4
10	PHY 470 WR	3680.82	abc	0.225	l	<b>828</b>	c-f	4.9	1.09	84.2	30.7
11	PHY 485 WRF	3370.455	b-e	0.229	k	<b>772</b>	d-g	4.7	1.1	82.6	29.5
12	PM 3535 BR	3043.73	ef	0.253	g	<b>770</b>	d-g	4.1	1.09	79	27.8
13	DP 117 B2RF	3370.45	b-e	0.223	m	<b>752</b>	efg	3.9	1.09	82.3	30.2
14	DP 445 BR	3016.42	efg	0.244	i	<b>736</b>	efg	4.9	1.1	83.5	31
15	FM 9063 B2RF	3365.01	b-e	0.213	n	<b>717</b>	fg	4.8	1.2	83.2	31
16	DP 444 BR	3081.87	ef	0.225	l	<b>693</b>	gh	4.8	1.07	81.4	26.6
17	DP 455 BR	2515.59	g	0.27	b	<b>679</b>	gh	4.8	1.06	82.5	30.8
18	PHY 480 WR	3228.885	c-f	0.205	q	<b>662</b>	gh	4.6	1.12	84.2	30.3
19	FM 989 B2R	3109.096	def	0.21	o	<b>653</b>	gh	4.3	1.18	82.8	30.5
20	FM 960 B2R	2722.5	fg	0.209	p	<b>569</b>	h	4.2	1.15	81.6	29.8
LSD (P=.10)		521.9362		0.00026		124.5					
CV		13.17		0.09		13.01					

Means followed by same letter do not significantly differ (P=.10, LSD)

**Table 3. Jackson County Irrigated Trial-3**Planted: May 18<sup>th</sup> Harvested: October 31<sup>st</sup> Soil Type: Clay Loam

Rank	Variety Name	Seed Cot		Gin		Lint Yield		Fiber Data			
		lbs/A		Percent		lbs/A	Mic	Length	Unif	Strength	
1	ST 5599 BR	3784.275	a	0.262	c	<b>991</b>	a	5	1.06	80.2	27.7
2	DP 488 BR	3631.815	ab	0.254	e	<b>922</b>	ab	4.6	1.15	82.2	30.3
3	ST 4554 B2RF	3544.695	abc	0.254	e	<b>900</b>	bc	4.9	1.06	81.7	30
4	PM 3535 BR	2962.08	gh	0.282	a	<b>835</b>	cd	4.9	1.11	80.8	29.1
5	PHY 370 WR	3479.355	abc	0.239	h	<b>832</b>	cd	5.1	1.05	83.3	30.6
6	PHY 485 WRF	3392.235	b-e	0.245	g	<b>831</b>	cd	5	1.08	82	27.5
7	PHY 480 WR	3375.9	b-e	0.237	i	<b>800</b>	de	4.9	1.1	82.6	29.9
8	DP 445 BR	3021.975	fgh	0.263	b	<b>795</b>	de	4.8	1.12	83.2	32.1
9	DP 444 BR	3081.87	e-h	0.249	f	<b>767</b>	def	4.4	1.05	81.7	25.5
10	DP 143 B2RF	3403.125	bcd	0.221	k	<b>752</b>	efg	4.4	1.14	80.5	26.6
11	DP 455 BR	2913.075	h	0.258	d	<b>752</b>	efg	4.7	1.08	80.5	29.6
12	PHY 470 WR	3528.36	abc	0.212	n	<b>748</b>	efg	4.7	1.12	83.8	28.9
13	DP 515 BR	3283.335	c-f	0.226	j	<b>742</b>	efg	4.8	1.08	81.8	28.4
14	ST 4357 B2RF	3452.13	bcd	0.213	m	<b>735</b>	efg	4.4	1.13	80.7	25.8
15	ST 4700 B2RF	3386.79	b-e	0.212	n	<b>718</b>	fg	4.4	1.1	84	28.4
16	FM 960 B2R	3501.136	abc	0.205	p	<b>718</b>	fg	4.9	1.21	83.5	32.9
17	DP 164 B2RF	3468.465	abc	0.204	q	<b>708</b>	fg	4.4	1.18	82.6	29.1
18	DP 117 B2RF	3256.11	c-g	0.214	l	<b>697</b>	fg	5.1	1.11	83.6	30.9
19	FM 955 LLB2	3256.11	c-g	0.21	o	<b>684</b>	gh	5.1	1.18	83.4	29.5
20	FM 9063 B2RF	3147.21	d-h	0.196	r	<b>617</b>	h	4.4	1.12	82.5	31.9
LSD (P=.10)		316.6635		0		72.9					
CV		8.02		0		7.93					

Means followed by same letter do not significantly differ (P=.10, LSD)



**Table 3. Beckham County Irrigated Trial**Planted: May 25<sup>th</sup>Harvested: November 9<sup>th</sup>

Soil Type: Clay Loam

Rank	Variety Name	Seed Cot		Gin		Lint Yield			Fiber Data		
		lbs/A		Percent		lbs/A	Mic	Length	Unif	Strength	
1	PHY 470 WR	5346.991	a	0.24	i	<b>1283</b>	a	3.8	1.14	83.6	27.9
2	DP 117 B2RF	4366.891	cde	0.28	a	<b>1223</b>	ab	3.7	1.14	83.1	30.9
3	DP 455 BR	4405.005	b-e	0.277	b	<b>1220</b>	ab	3.6	1.15	82.4	29
4	PHY 485 WRF	5205.42	ab	0.226	k	<b>1176</b>	abc	3.4	1.18	83.8	29.6
5	DP 143 B2RF	4998.511	abc	0.233	j	<b>1165</b>	abc	3.5	1.23	82.9	26.6
6	ST 4700 B2RF	4562.911	a-e	0.254	f	<b>1159</b>	abc	3.7	1.15	82.1	26
7	DP 445 BR	4546.576	a-e	0.245	g	<b>1114</b>	a-d	3.5	1.15	82.8	30.6
8	DP 444 BR	4208.985	cde	0.262	c	<b>1103</b>	a-d	3.4	1.12	81.6	25.6
9	ST 4357 B2RF	5003.956	abc	0.22	m	<b>1101</b>	a-d	3.5	1.21	82.3	25
10	FM 989 B2R	5330.655	a	0.203	p	<b>1082</b>	bcd	3.6	1.19	83.7	32.7
11	ST 4554 B2RF	4214.43	cde	0.255	e	<b>1075</b>	bcd	4.6	1.15	83.3	30.9
12	PHY 370 WR	4334.221	cde	0.245	g	<b>1062</b>	bcd	3.6	1.15	84	28.6
13	DP 488 BR	4824.271	a-d	0.219	n	<b>1057</b>	bcd	3.5	1.2	81.4	28.5
14	FM 9063 B2RF	4758.931	a-d	0.22	m	<b>1047</b>	bcd	3.7	1.21	84.5	30.7
15	ST 5599 BR	4203.54	cde	0.241	h	<b>1013</b>	cde	4.1	1.09	82.4	29.8
16	PM 3535 BR	4383.226	b-e	0.226	k	<b>991</b>	cde	3	1.15	79.8	27.7
17	FM 960 B2R	3833.28	e	0.256	d	<b>981</b>	cde	3.5	1.17	82.7	30.7
18	PHY 480 WR	4372.335	cde	0.215	o	<b>940</b>	de	3.5	1.18	83.3	28.3
19	DP 515 BR	4110.976	de	0.224	l	<b>921</b>	de	3.5	1.17	83	28.6
20	DP 164 B2RF	4481.235	b-e	0.187	q	<b>838</b>	e	3.2	1.24	82	28.4
LSD (P=.10)		830.0712		0		198.1					
CV		15.36		0		15.56					

Means followed by same letter do not significantly differ (P=.10, LSD)

**Table 5. Avg. Rank over 4 Loc's.**

1	ST 5599 BR	5.5
2	PHY 485 WRF	5.8
3	ST 4554 B2RF	5.8
4	DP 488 BR	5.8
5	PHY 470 WR	6.8
6	PHY 370 WR	7.3
7	DP 143 B2RF	8.0
8	DP 445 BR	8.3
9	DP 455 BR	9.0
10	ST 4700 B2RF	10.0
11	DP 117 B2RF	10.0
12	DP 515 BR	10.5
13	ST 4357 B2RF	11.0
14	DP 444 BR	11.3
15	PM 3535 BR	12.5
16	DP 164 B2RF	13.3
17	FM 989 B2R	14.5*
18	PHY 480 WR	15.5
19	FM 960 B2R	15.8
20	FM 9063 B2RF	17.3
21	FM 955 LLB2	17.5*

\*Variety only present at two locations

# Weed Control

Weed control decisions continue to be an important part of cotton production in Oklahoma. The introduction of new herbicides and new seed technologies are increasing producer's options and maximizing efficiency of their operations. Our purpose is to identify the best options available to Oklahoma producers and help adapt those programs to their operation. We accomplish this through the generation of research-based information. As new options emerge producers often don't have the capability to experiment with them. The following trials attempt to address current or potential weed control issues important to Oklahoma cotton producers.

## Using Staple in RR Flex Cotton for Morningglory Control

**Planted:** June 6th    **Variety:** DP 143 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Growth Unit	Stage	Appl Code	% Pitted Morningglory Control			
						7/5/2006	7/18/2006	8/3/2006	8/30/2006
1	STAPLE LX	0.68	oz ai/a	2-4LFC	B	0 a	91.7 abc	98.7 a	95.3 a
	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B				
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	LAYBY PRO	16	oz ai/a	LAYBY	D				
	MSMA	24	oz ai/a	LAYBY	D				
	NIS	0.25	% v/v	LAYBY	D				
2	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B	0 a	91.7 abc	79.3 b	98 a
	STAPLE LX	0.68	oz ai/a	2-4LFC	B				
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	LAYBY PRO	16	oz ai/a	LAYBY	D				
	MSMA	24	oz ai/a	LAYBY	D				
	NIS	0.25	% v/v	LAYBY	D				
3	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B	0 a	91.7 abc	98 a	98 a
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	ROUNDUP WEATHERMAX	15	oz ai/a	LAYBY	D				
	STAPLE LX	0.68	oz ai/a	LAYBY	D				
4	STAPLE LX	0.34	oz ai/a	2-4LFC	B	0 a	86.7 cd	90 ab	94.3 ab
	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B				
	STAPLE LX	0.34	oz ai/a	5-8LFC	C				
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	LAYBY PRO	16	oz ai/a	LAYBY	D				
	MSMA	24	oz ai/a	LAYBY	D				
5	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B	0 a	91.7 abc	85 ab	87.7 c
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	ROUNDUP WEATHERMAX	15	oz ai/a	LAYBY	D				
	COTORAN	16	oz ai/a	PREEMERG	A	0 a	85 d	60 c	89.3 bc
6	STAPLE LX	0.68	oz ai/a	5-8LFC	C				
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	LAYBY PRO	16	oz ai/a	LAYBY	D				
	MSMA	24	oz ai/a	LAYBY	D				
	NIS	0.25	% v/v	LAYBY	D				

Using Staple in RR Flex Cotton for Morningglory Control (cont.)

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	% Pitted Morningglory Control			
						7/5/2006	7/18/2006	8/3/2006	8/30/2006
7	STAPLE LX	0.34	oz ai/a	2-4LFC	B	0 a	96.7 a	97 ab	97 a
	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B				
	DUAL MAGNUM	1	pt/a	2-4LFC	B				
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	LAYBY PRO	16	oz ai/a	LAYBY	D				
	MSMA	24	oz ai/a	LAYBY	D				
	NIS	0.25	% v/v	LAYBY	D				
8	ROUNDUP WEATHERMAX	15	oz ai/a	2-4LFC	B	0 a	88.3 bcd	86.7 ab	98 a
	STAPLE LX	0.34	oz ai/a	5-8LFC	C				
	ROUNDUP WEATHERMAX	15	oz ai/a	5-8LFC	C				
	DUAL MAGNUM	1	pt/a	5-8LFC	C				
	LAYBY PRO	16	oz ai/a	LAYBY	D				
	MSMA	24	oz ai/a	LAYBY	D				
	NIS	0.25	% v/v	LAYBY	D				
9	TOUCHDOWN HITECH	20	oz/a	2-4LFC	B	0 a	93.3 ab	88.3 ab	98 a
	TOUCHDOWN HITECH	20	oz/a	5-8LFC	C				
	ENVOKE	0.15	oz/a	5-8LFC	C				
	NIS	0.25	% v/v	5-8LFC	C				
	SUPREND	1.5	lb/a	LAYBY	D				
	CROP OIL	1.25	% v/v	LAYBY	D				
	UNTREATED					0 a	0 e	0 d	0 d
LSD (P=.10)						0	5.6	17.92	5.6
CV						0	4.84	16.16	4.62

Means followed by same letter do not significantly differ (P=.10, LSD)

## Using Staple in RR Flex Cotton for Morningglory Control (cont.)

Application Description				
	A	B	C	D
Application Date:	6/7/2006	7/5/2006	7/26/2006	8/15/2006
Time of Day:	8:00 AM	9:00 AM	11:00 AM	2:00 PM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	2-4LF EP	5-8LF MP	LAYBY
Application Placement:	BROADCAST	BROADCAST	BROADCAST	DIRECTED
Applied By:	OSU	OSU	OSU	OSU
Air Temperature, Unit:	81 F	76 F	88 F	98 F
% Relative Humidity:	77	37	35	33
Wind Velocity, Unit:	5 MPH	4 MPH	6 MPH	7 MPH
Wind Direction:	NE	ESE	SSE	SW
Soil Temperature, Unit:	85 F	86 F	89 F	94 F
Soil Moisture:	MARGINAL	ADEQUATE	ADEQUATE	ADEQUATE
% Cloud Cover:	0	0	0	40

Application Equipment				
	A	B	C	D
Appl. Equipment:	LEESPIDER	LEESPIDER	LEESPIDER	REDBALL
Operating Pressure:	24	24	24	26
Pressure Unit:	PSI	PSI	PSI	PSI
Nozzle Type:	TURBOTJ	TURBOTJ	TURBOTJ	ERTEEJET
Nozzle Size:	11002	11002	11002	8001/003
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	
Nozzles/Row:	2	2	2	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume:	10	10	10	15
Volume Unit:	GPA	GPA	GPA	GPA
Propellant:	COMP.AIR	COMP.AIR	COMP.AIR	COMP.AIR

### Syngenta Programs for Morningglory Control

**Planted:** June 6th     **Variety:** DP 143 B2F     **Soil Type:** Clay loam     **Location:** OSU

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	% Pitted Morningglory Control			
		Rate	Unit			7/5/2006	7/18/2006	8/3/2006	8/30/2006
1	UNTREATED					0 a	0 b	0 d	0 c
2	SEQUENCE	2.5	pt/a	EP1-3LFC	B	0 a	93.8 a	96 a	98 a
	ACCUQUEST WM	2	qt/100 gal	EP1-3LFC	B				
	TOUCHDOWN HITECH	20	oz/a	MP5-8LFC	C				
	ACCUQUEST WM	2	qt/100 gal	MP5-8LFC	C				
	ENVOKE	0.15	oz/a	MP5-8LFC	C				
	TOUCHDOWN HITECH	20	oz/a	PD10-12L	D				
	REFLEX	1	pt/a	PD10-12L	D				
	NIS	0.25	% v/v	PD10-12L	D				
	ACCUQUEST WM	2	qt/100 gal	PD10-12L	D				
3	ROUNDUP WMAX	22	oz/a	EP1-3LFC	B	0 a	90 a	89 ab	98 a
	PROWL H20	2	pt/a	EP1-3LFC	B				
	ACCUQUEST WM	2	qt/100 gal	EP1-3LFC	B				
	ROUNDUP WMAX	22	oz/a	MP5-8LFC	C				
	STAPLE LX	2	oz/a	MP5-8LFC	C				
	ACCUQUEST WM	2	qt/100 gal	MP5-8LFC	C				
	AIM	1	oz/a	PD10-12L	D				
	DIREX	1	qt/a	PD10-12L	D				
	CROP OIL	1	% v/v	PD10-12L	D				
4	CAPAROL	3.2	pt/a	PRE	A	0 a	91.3 a	84.5 bc	91.5 b
	TOUCHDOWN HITECH	20	oz/a	EP AN	BC				
	ACCUQUEST WM	2	qt/100 gal	EP AN	BC				
	ENVOKE	0.15	oz/a	EP1-3LFC	B				
	SUPREND	1.5	lb/a	LP	D				
	CROP OIL	1	% v/v	LP	D				
5	TOUCHDOWN HITECH	20	oz/a	EP AN	BC	0 a	88.8 a	87 ab	98 a
	ACCUQUEST WM	2	qt/100 gal	EP AN	BC				
	TOUCHDOWN HITECH	20	oz/a	PD	D				
	REFLEX	1	pt/a	PD	D				
	NIS	0.25	% v/v	PD	D				
	ACCUQUEST WM	2	qt/100 gal	PD	D				
6	ROUNDUP WMAX	22	oz/a	EP AN	BC	0 a	87.5 a	75 c	98 a
	ACCUQUEST WM	2	qt/100 gal	EP AN	BC				
	AIM	1	oz/a	PD	D				
	DIREX	1	qt/a	PD	D				
	CROP OIL	1	% v/v	PD	D				
LSD (P=.10)						0	7	10.34	4.32
CV						0	7.51	11.6	4.33

Means followed by same letter do not significantly differ (P=.10, LSD)

**Syngenta Programs for Morningglory Control (cont.)**

Application Description				
	A	B	C	D
Application Date:	6/7/2006	7/5/2006	7/26/2006	8/16/2006
Time of Day:	8:00 AM	9:00 AM	10:00 AM	4:30 PM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	EP1-3LF	5-8LF	LAYBY
Application Placement:	BROADCAST	BROADCAST	BROADCAST	DIRECTED
Applied By:	OSU	OSU	OSU	OSU
Air Temperature, Unit:	74 F	82 F	96 F	98 F
% Relative Humidity:	53	55	35	30
Wind Velocity, Unit:	4 MPH	6 MPH	6 MPH	5 MPH
Wind Direction:	NE	NE	SSE	SW
Soil Temperature, Unit:	84 F	87 F	94 F	94 F
Soil Moisture:	MARGINAL	ADEQUATE	ADEQUATE	ADEQUATE
% Cloud Cover:	0	30	0	20

Application Equipment				
	A	B	C	D
Appl. Equipment:	LEE SPIDER	LEE SPIDER	LEE SPIDER	REDBALL
Operating Pressure:	24	24	24	28
Pressure Unit:	PSI	PSI	PSI	PSI
Nozzle Type:	TTJET	TTJET	TTJET	FLATFAN
Nozzle Size:	11002	11002	11002	8001/003
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	13 IN
Nozzles/Row:	2	2	2	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume:	10	10	10	15
Volume Unit:	GPA	GPA	GPA	GPA

### Roundup WeatherMax Systems for Morningglory Control

**Planted:** June 6th    **Variety:** DP 143 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	% Pitted MG Control		
						7/18/2006	8/3/2006	8/30/2006
1	CAPAROL	3.2	pt/a	PREEMERG	A	88.8 ab	92.8 ab	98 a
	ROUNDUP WMAX	0.75	lb ae/a	1-3LF CT	B			
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	C OR D			
2	ROUNDUP WMAX	0.75	lb ae/a	1-3LF CT	B	85 bc	88.8 bc	98 a
	STAPLE LX	2	oz/a	1-3LF CT	B			
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	C OR D			
3	ROUNDUP WMAX	0.75	lb ae/a	1-3LF CT	B	95 a	98 a	98 a
	STAPLE LX	2	oz/a	2-5"WEED	C OR D			
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	C OR D			
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	D OR E			
4	ROUNDUP WMAX	0.75	lb ae/a	1-3LF CT	B	78.8 c	85 c	98 a
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	C OR D			
	STAPLE LX	2	oz/a	2-5"WEED	D OR E			
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	D OR E			
5	ROUNDUP WMAX	0.75	lb ae/a	1-3LF CT	B	90 ab	92.8 ab	98 a
	PROWL H20	0.75	lb ai/a	1-3LF CT	B			
	ROUNDUP WMAX	0.75	lb ae/a	2-5"WEED	C OR D			
	DUAL MAGNUM	1	pt/a	2-5"WEED	C OR D			
	STAPLE LX	2	oz/a	2-5"WEED	D OR E			
	ROUNDUP WMAX	1.12	lb ae/a	2-5"WEED	D OR E			
6	UNTREATED					0 d	0 d	0 b
LSD (P=.10)						9.15	7.47	0
CV						10.12	7.91	0

Means followed by same letter do not significantly differ (P=.10, LSD)

## Roundup WeatherMax Systems for Morningglory Control (cont.)

Application Description				
	A	B	C	D
Application Date:	6/7/2006	6/22/2006	7/6/2006	8/17/2006
Time of Day:	8:00 am	9:00 am	9:30 am	10:00am
Application Method:	spray	spray	spray	spray
Application Timing:	preemerge	1 lf	2-5"weeds	Layby
Application Placement:	broadcast	broadcast	broadcast	directed
Applied By:	OSU	OSU	OSU	OSU
Air Temperature, Unit:	74 f	75 f	77 f	87 f
% Relative Humidity:	53	65	38	58
Wind Velocity, Unit:	4 mph	5 mph	6 mph	3.2 mph
Wind Direction:	NE	ESE	ESE	SE
Soil Temperature, Unit:	84 f	83 f	87 f	85 f
Soil Moisture:	Adequate	adequate	Marginal	Good
% Cloud Cover:	0	80	0	50

Application Equipment				
	A	B	C	D
Appl. Equipment:	Spider	Spider	Spider	Redball
Operating Pressure:	24	24	24	25
Pressure Unit:	psi	psi	psi	psi
Nozzle Type:	TTjet	TTjet	TTjet	TTjet
Nozzle Size:	11002	11002	11002	8001/003
Nozzle Spacing, Unit:	20 in	20 in	20 in	13 in
Nozzles/Row:	2	2	2	3
Ground Speed, Unit:	4 mph	4 mph	4 mph	4 mph
Carrier:	water	water	water	water
Spray Volume:	10	10	10	15
Volume Unit:	GPA	GPA	GPA	GPA
Propellant:	comp.air	comp.air	comp.air	comp.air



### Roundup WeatherMax and Prowl Over-the-Top for Morningglory Control

**Planted:** June 6th    **Variety:** DP 143 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	% Pitted MG Control	
		Rate	Unit			7/18/2006	8/3/2006
1	ROUNDUP ORIGINAL MAX	16	oz/a	EP	A	88.8	c
	PROWL H20	1	qt/a	EP	A		
2	ROUNDUP ORIGINAL MAX	22	oz/a	EP	A	93.3	bc
	PROWL H20	1	qt/a	EP	A		
3	ROUNDUP ORIGINAL MAX	32	oz/a	EP	A	95.3	ab
	PROWL H20	1	qt/a	EP	A		
4	ROUNDUP ORIGINAL MAX	16	oz/a	EP	A	96.5	ab
	DUAL II MAGNUM	1	pt/a	EP	A		
5	ROUNDUP ORIGINAL MAX	22	oz/a	EP	A	94.5	ab
	DUAL II MAGNUM	1	pt/a	EP	A		
6	ROUNDUP ORIGINAL MAX	32	oz/a	EP	A	97.8	ab
	DUAL II MAGNUM	1	pt/a	EP	A		
7	ROUNDUP ORIGINAL MAX	16	oz/a	EP	A	89	c
8	ROUNDUP ORIGINAL MAX	22	oz/a	EP	A	95.3	ab
9	ROUNDUP ORIGINAL MAX	32	oz/a	EP	A	96.5	ab
10	ROUNDUP ORIGINAL MAX	22	oz/a	EP	A	99	a
	DIREX	1	qt/a	EP	A		
11	UNTREATED					0	d
	LSD (P=.10)					5.23	
	CV					5.07	

Means followed by same letter do not significantly differ (P=.10, LSD)

## Roundup WeatherMax and Prowl Over-the-Top for Morningglory Control (cont.)

### Application Description

	A
Application Date:	7/5/2006
Time of Day:	9:00 AM
Application Method:	SPRAY
Application Timing:	EP 2-4LF
Application Placement:	BROADCAST
Applied By:	OSU
Air Temperature, Unit:	79 F
% Relative Humidity:	60
Wind Velocity, Unit:	5 MPH
Wind Direction:	SE
Soil Temperature, Unit:	87 F
Soil Moisture:	GOOD
% Cloud Cover:	20

### Application Equipment

	A
Appl. Equipment:	SPIDER
Operating Pressure:	25
Pressure Unit:	PSI
Nozzle Type:	TJ ER
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume:	10
Volume Unit:	GPA
Propellant:	COMP.AIR

### Postdirected Programs for Morningglory Control

**Planted:** June 6th    **Variety:** DP 143 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	% Pitted MG Control	
		Rate	Unit			8/30/2006	9/14/2006
1	LAYBY PRO	16	oz ai/a	LAYBY	A	91 a	83.3 b
	CROP OIL CONCENTRATE	1	% v/v	LAYBY	A		
2	LAYBY PRO	16	oz ai/a	LAYBY	A	97 a	88.3 a
	ROUNDUP WEATHERMAX	15	oz ai/a	LAYBY	A		
3	ROUNDUP WEATHERMAX	15	oz ai/a	LAYBY	A	91.7 a	90 a
	DIREX	16	oz ai/a	LAYBY	A		
4	LAYBY PRO	16	oz ai/a	LAYBY	A	90 a	83.3 b
	MSMA	24	oz ai/a	LAYBY	A		
	CROP OIL CONCENTRATE	1	% v/v	LAYBY	A		
5	ROUNDUP WEATHERMAX	15	oz ai/a	LAYBY	A	80 b	75 c
6	AIM	1	oz/a	LAYBY	A	96 a	90 a
	DIREX	1	qt/a	LAYBY	A		
	CROP OIL CONCENTRATE	1	% v/v	LAYBY	A		
7	UNTREATED					0 c	0 d
LSD (P=.10)						7.47	4.2
CV						6.59	3.96

Means followed by same letter do not significantly differ (P=.10, LSD)

#### Application Description

A

Application Date: 8/16/2006  
 Time of Day: 4:00 PM  
 Application Method: SPRAY  
 Application Timing: LAYBY  
 Application Placement: DIRECTED  
 Applied By: OSU  
 Air Temperature, Unit: 101 F  
 % Relative Humidity: 23  
 Wind Velocity, Unit: 3.5 MPH  
 Wind Direction: SW  
 Soil Temperature, Unit: 96 F  
 Soil Moisture: GOOD  
 % Cloud Cover: 20

#### Application Equipment

A

Appl. Equipment: REDBALL  
 Operating Pressure: 26  
 Pressure Unit: PSI  
 Nozzle Type: ERTJET  
 Nozzle Size: 8001/003  
 Nozzles/Row: 3  
 Ground Speed, Unit: 4 MPH  
 Carrier: WATER  
 Spray Volume: 15  
 Volume Unit: GPA  
 Propellant: COMP.AIR

### Economic Returns from a Roundup Weathermax Morningglory Control Program

**Planted:** June 6th    **Variety:** DP 143 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	% Pitted Morningglory Control		
		Rate	Unit			7/18/2006	8/3/2006	9/1/2006
1	UNTREATED					23.8 b	0 b	0 b
2	ROUNDUP WEATHERMAX	22	oz/a	EP1-AN	B	83.8 a	93.8 a	98 a
	ROUNDUP WEATHERMAX	22	oz/a	EP3-AN	C			
	STAPLE LX	1.8	oz/a	EP3-AN	C			
	CROP OIL CONCENTRATE	1.25	% v/v	EP3-AN	C			
3	ROUNDUP WEATHERMAX	33	oz/a	EP1-AN	B	98.8 a	96.3 a	98 a
	ROUNDUP WEATHERMAX	33	oz/a	EP2-AN	C			
	STAPLE LX	1.8	oz/a	EP3-AN	C			
	CROP OIL CONCENTRATE	1.25	% v/v	EP3-AN	C			
4	CAPAROL	3.2	pt/a	PRE	A	96.3 a	96.3 a	98 a
	ROUNDUP WEATHERMAX	22	oz/a	EP1-AN	B			
	ROUNDUP WEATHERMAX	22	oz/a	EP3-AN	C			
5	CAPAROL	3.2	pt/a	PRE	A	98.8 a	96.3 a	98 a
	ROUNDUP WEATHERMAX	33	oz/a	EP1-AN	B			
	ROUNDUP WEATHERMAX	33	oz/a	EP3-AN	C			
LSD (P=.10)						27.12	2.57	0
CV						26.82	2.67	0

Means followed by same letter do not significantly differ (P=.10, LSD)

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	SeedCot lbs/A	Gin %	Yield lbs/A
		Rate	Unit					
1	UNTREATED					3406 b	0.25 d	852 c
2	ROUNDUP WEATHERMAX	22	oz/a	EP1-AN	B	4589 a	0.27 b	1239 b
	ROUNDUP WEATHERMAX	22	oz/a	EP3-AN	C			
	STAPLE LX	1.8	oz/a	EP3-AN	C			
	CROP OIL CONCENTRATE	1.25	% v/v	EP3-AN	C			
3	ROUNDUP WEATHERMAX	33	oz/a	EP1-AN	B	4851 a	0.26 c	1261 b
	ROUNDUP WEATHERMAX	33	oz/a	EP2-AN	C			
	STAPLE LX	1.8	oz/a	EP3-AN	C			
	CROP OIL CONCENTRATE	1.25	% v/v	EP3-AN	C			
4	CAPAROL	3.2	pt/a	PRE	A	4736 a	0.3 a	1421 a
	ROUNDUP WEATHERMAX	22	oz/a	EP1-AN	B			
	ROUNDUP WEATHERMAX	22	oz/a	EP3-AN	C			
5	CAPAROL	3.2	pt/a	PRE	A	4594 a	0.27 b	1240 b
	ROUNDUP WEATHERMAX	33	oz/a	EP1-AN	B			
	ROUNDUP WEATHERMAX	33	oz/a	EP3-AN	C			
LSD (P=.10)						418	0	111.5
CV						7.48	0	7.36

Means followed by same letter do not significantly differ (P=.10, LSD)

**Economic Returns from a Roundup Weathermax Morningglory Control Program (cont.)**

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code		Fiber Data		Strength
		Rate	Unit		Mic	Length	Unif.		
1	UNTREATED					4.1	1.17	82.5	25.6
2	ROUNDUP WEATHERMAX	22	oz/a	EP1-AN	B	3.1	1.16	78.4	26.1
	ROUNDUP WEATHERMAX	22	oz/a	EP3-AN	C				
	STAPLE LX	1.8	oz/a	EP3-AN	C				
	CROP OIL CONCENTRATE	1.25	% v/v	EP3-AN	C				
3	ROUNDUP WEATHERMAX	33	oz/a	EP1-AN	B	3.2	1.18	80.6	27.9
	ROUNDUP WEATHERMAX	33	oz/a	EP2-AN	C				
	STAPLE LX	1.8	oz/a	EP3-AN	C				
	CROP OIL CONCENTRATE	1.25	% v/v	EP3-AN	C				
4	CAPAROL	3.2	pt/a	PRE	A	3.6	1.2	81.1	27.8
	ROUNDUP WEATHERMAX	22	oz/a	EP1-AN	B				
	ROUNDUP WEATHERMAX	22	oz/a	EP3-AN	C				
5	CAPAROL	3.2	pt/a	PRE	A	3.4	1.17	81.7	27.9
	ROUNDUP WEATHERMAX	33	oz/a	EP1-AN	B				
	ROUNDUP WEATHERMAX	33	oz/a	EP3-AN	C				

Application Description

	A	B	C
Application Date:	6/7/2006	7/5/2006	8/17/2006
Time of Day:	8:00 AM	1:30 PM	10:15 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	EP 2-4LF	LAYBY
Application Placement:	BROADCAST	BROADCAST	DIRECTED
Applied By:	OSU	OSU	OSU
Air Temperature, Unit:	74 F	86 F	87 F
% Relative Humidity:	53	44	58
Wind Velocity, Unit:	4 MPH	6 MPH	3 MPH
Wind Direction:	NE	NE	SE
Soil Temperature, Unit:	84 F	85 F	85 F
Soil Moisture:	MARGINAL	ADEQUATE	ADEQUATE
% Cloud Cover:	0	25	20

Application Equipment

	A	B	C
Appl. Equipment:	LEE SPIDER	LEE SPIDER	REDBALL
Operating Pressure:	24	24	28
Pressure Unit:	PSI	PSI	PSI
Nozzle Type:	TTJET	TTJET	FLATFANS
Nozzle Size:	11002	11002	8001/003
Nozzle Spacing, Unit:	20 IN	20 IN	13 IN
Nozzles/Row:	2	2	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume:	10	10	15
Volume Unit:	GPA	GPA	GPA

**Economic Returns from a Roundup Weathermax Morningglory Control Program (cont.)**

	Lint Yield Lbs/A	Loan rate \$/lb	Gross Revenue \$/Acre	Herbicide + App. Cost \$/A	Partial Net Return to Herb. Program
Trt				(\$4.00 App Cost)	
1	852	0.5450	\$ 464.34	\$ -	\$ 464.34
2	1239	0.4985	\$ 617.64	\$ 36.00	\$ 581.64
3	1261	0.5045	\$ 636.17	\$ 43.26	\$ 592.91
4	1421	0.5405	\$ 768.05	\$ 38.27	\$ 729.78
5	1240	0.5215	\$ 646.66	\$ 45.53	\$ 601.13

### Economic Returns from a Liberty Link/Ignite Morningglory Control Program

**Planted:** June 6th      **Variety:** FM 955 LLB2      **Soil Type:** Clay loam      **Location:** OSU

Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	% Pitted Morningglory Control					
						7/18/2006		8/3/2006		9/1/2006	
1	UNTREATED					0	b	0	b	0	b
2	IGNITE 280	22	oz/a	EP1-AN	B	100	a	98	a	100	a
	IGNITE 280	22	oz/a	EP3-AN	C						
	STAPLE LX	1.8	oz/a	EP3-AN	C						
	CROP OIL	1.25	% v/v	EP3-AN	C						
3	IGNITE 280	29	oz/a	EP1-AN	B	100	a	98	a	100	a
	IGNITE 280	29	oz/a	EP3-AN	C						
	STAPLE LX	1.8	oz/a	EP3-AN	C						
	CROP OIL	1.25	% v/v	EP3-AN	C						
4	CAPAROL	3.2	pt/a	PRE	A	100	a	98	a	100	a
	IGNITE 280	22	oz/a	EP1-AN	B						
	IGNITE 280	22	oz/a	EP3-AN	C						
5	CAPAROL	3.2	pt/a	PRE	A	100	a	98	a	100	a
	IGNITE 280	29	oz/a	EP1-AN	B						
	IGNITE 280	29	oz/a	EP3-AN	C						
	LSD (P=.10)							0		0	
	CV							0		0	

Means followed by same letter do not significantly differ (P=.10, LSD)

Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	SeedCot		Gin		Yield	
						lbs/A		%		lbs/A	
1	UNTREATED					4009	b	0.26	b	1042.3	c
2	IGNITE 280	22	oz/a	EP1-AN	B	4769	a	0.29	a	1383	a
	IGNITE 280	22	oz/a	EP3-AN	C						
	STAPLE LX	1.8	oz/a	EP3-AN	C						
	CROP OIL	1.25	% v/v	EP3-AN	C						
3	IGNITE 280	29	oz/a	EP1-AN	B	4790	a	0.26	b	1245.5	b
	IGNITE 280	29	oz/a	EP3-AN	C						
	STAPLE LX	1.8	oz/a	EP3-AN	C						
	CROP OIL	1.25	% v/v	EP3-AN	C						
4	CAPAROL	3.2	pt/a	PRE	A	5127	a	0.29	a	1486.8	a
	IGNITE 280	22	oz/a	EP1-AN	B						
	IGNITE 280	22	oz/a	EP3-AN	C						
5	CAPAROL	3.2	pt/a	PRE	A	4977	a	0.29	a	1443.3	a
	IGNITE 280	29	oz/a	EP1-AN	B						
	IGNITE 280	29	oz/a	EP3-AN	C						
	LSD (P=.10)					481.1		0		134.53	
	CV					8.07		0		8.09	

Means followed by same letter do not significantly differ (P=.10, LSD)

**Economic Returns from a Liberty Link/Ignite Morningglory Control Program (cont.)**

Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Mic	Length	Fiber Data Unif.	Strength
1	UNTREATED					3.7	1.13	83	30.7
2	IGNITE 280	22	oz/a	EP1-AN	B	4	1.12	81.2	30.2
	IGNITE 280	22	oz/a	EP3-AN	C				
	STAPLE LX	1.8	oz/a	EP3-AN	C				
	CROP OIL	1.25	% v/v	EP3-AN	C				
3	IGNITE 280	29	oz/a	EP1-AN	B	4.2	1.1	80.1	27.2
	IGNITE 280	29	oz/a	EP3-AN	C				
	STAPLE LX	1.8	oz/a	EP3-AN	C				
	CROP OIL	1.25	% v/v	EP3-AN	C				
4	CAPAROL	3.2	pt/a	PRE	A	4.1	1.15	82.6	29.2
	IGNITE 280	22	oz/a	EP1-AN	B				
	IGNITE 280	22	oz/a	EP3-AN	C				
5	CAPAROL	3.2	pt/a	PRE	A	3.9	1.18	83.2	30.8
	IGNITE 280	29	oz/a	EP1-AN	B				
	IGNITE 280	29	oz/a	EP3-AN	C				

Application Description

	A	B	C
Application Date:	6/7/2006	7/5/2006	8/17/2006
Time of Day:	8:00 AM	1:30 PM	10:15 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	EP 2-4LF	LAYBY
Application Placement:	BROADCAST	BROADCAST	DIRECTED
Applied By:	OSU	OSU	OSU
Air Temperature, Unit:	74 F	86 F	87 F
% Relative Humidity:	53	44	58
Wind Velocity, Unit:	4 MPH	6 MPH	3 MPH
Wind Direction:	NE	NE	SE
Soil Temperature, Unit:	84 F	85 F	85 F
Soil Moisture:	MARGINAL	ADEQUATE	ADEQUATE
% Cloud Cover:	0	25	20

Application Equipment

	A	B	C
Appl. Equipment:	LEE SPIDER	LEE SPIDER	REDBALL
Operating Pressure:	24	24	28
Pressure Unit:	PSI	PSI	PSI
Nozzle Type:	TTJET	TTJET	FLATFANS
Nozzle Size:	11002	11002	8001/003
Nozzle Spacing, Unit:	20 IN	20 IN	13 IN
Nozzles/Row:	2	2	3
Ground Speed, Unit:	3 MPH	3 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume:	15	15	15
Volume Unit:	GPA	GPA	GPA



**Economic Returns from a Liberty Link/Ignite Morningglory Control Program (cont.)**

	Lint Yield Lbs/A	Loan rate \$/lb	Gross Revenue \$/Acre	Herbicide + App. Cost \$/A	Partial Net Return to Herb. Program
Trt				(\$4.00 App Cost)	
1	1042	0.5495	\$ 572.58	\$ -	\$ 572.58
2	1383	0.5450	\$ 753.74	\$ 39.48	\$ 714.26
3	1245	0.5360	\$ 667.32	\$ 45.26	\$ 622.06
4	1486	0.5450	\$ 809.87	\$ 41.75	\$ 768.12
5	1443	0.5495	\$ 792.93	\$ 47.53	\$ 745.40

**Alternative Pigweed Control Options in a Roundup Ready Flex Program**

**Planted:** May 20th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	% Pigweed Control							
		Rate	Unit			6/5/2006	6/29/2006	7/13/2006	7/19/2006	6/5/2006	6/29/2006	7/13/2006	7/19/2006
1	STAPLE LX	1.6	oz/a	PRE	A	65	c	100	a	90	a	91.3	ab
2	DUAL MAGNUM	1	lb ai/a	PRE	A	5	f	100	a	58.8	ef	55	fg
3	STALWART	1	lb ai/a	PRE	A	5	f	100	a	63.8	de	55	fg
4	PROWL H2O	1	lb ai/a	PRE	A	21.3	e	100	a	76.3	c	72.5	cde
5	COTORAN	1	lb ai/a	PRE	A	71.3	c	100	a	92	a	88.8	ab
6	CAPAROL	0.5	lb ai/a	PRE	A	81.3	ab	100	a	72.5	cd	70	de
7	LINEX	1.33	lb ai/a	PRE	A	85	a	100	a	86.3	ab	82.5	bc
8	ENVOKE	0.005	lb ai/a	PRE	A	72.5	bc	100	a	94.5	a	90	ab
9	REFLEX	0.25	lb ai/a	PRE	A	70	c	67.5	b	95	a	93.8	a
10	LASSO	1	lb ai/a	PRE	A	41.3	d	67.5	b	45	g	56.3	fg
11	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	91.3	a	88.8	ab
	VALOR	0.63	lb ai/a	PD 12LFC	C								
	ROUNDUP WEATHERMAX	0.75	lb ae/a	PD 12LFC	C								
12	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	71.3	cd	77.5	cd
	REFLEX	0.25	lb ai/a	PD 12LFC	C								
	ROUNDUP WEATHERMAX	0.75	lb ae/a	PD 12LFC	C								
13	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	77.5	bc	77.5	cd
	ROUNDUP WEATHERMAX	0.75	lb ae/a	PD 12LFC	C								
	DIREX	0.3	lb ai/a	PD 12LFC	C								
14	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	80	bc	68.8	de
	DUAL MAGNUM	1	lb ai/a	EP 4LFC	B								
15	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	76.3	c	65	ef
	STALWART	1	lb ai/a	EP 4LFC	B								
16	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	52.5	fg	47.5	g
	LASSO	1	lb ai/a	EP 4LFC	B								
17	ROUNDUP WEATHERMAX	0.75	lb ae/a	EP 4LFC	B	0	f	100	a	57.5	ef	50	g
	PROWL H2O	2	pt/a	EP 4LFC	B								
18	UNTREATED					0	f	0	c	0	h	0	h
LSD (P=.10)						9.26		1.14		9.21		10.32	
CV						27.27		1.06		10.96		12.79	

Means followed by same letter do not significantly differ (P=.10, LSD)

**Alternative Pigweed Control Options in a Roundup Ready Flex Program (cont.)**

Application Description

	A	B	C
Application Date:	5/19/2006	6/6/2006	7/6/2006
Time of Day:	2:00 PM	3:30 PM	9:00 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	EP-2LF	PD-12LF
Application Placement:	BROADCAST	BROADCAST	DIRECTED
Applied By:	OSU	OSU	OSU
Air Temperature, Unit:	95 F	94 F	76 F
% Relative Humidity:	12	25	50
Wind Velocity, Unit:	6 MPH	4 MPH	4 MPH
Wind Direction:	SSE	ESE	NE
Soil Temperature, Unit:	85 F	90 F	88 F
Soil Moisture:	GOOD	GOOD	GPPD
% Cloud Cover:	0	70	0

Application Equipment

	A	B	C
Appl. Equipment:	SPIDER	SPIDER	REDBALL
Operating Pressure:	25	25	28
Pressure Unit:	PSI	PSI	PSI
Nozzle Type:	TJ ER	TJ ER	TJER
Nozzle Size:	11002	11002	8001/003
Nozzle Spacing, Unit:	20 IIN	20 IIN	13 IN
Nozzles/Row:	2	2	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume:	10	10	15
Volume Unit:	GPA	GPA	GPA
Propellant:	COMP.AIR	COMP.AIR	COMP.AIR

## Large Plot Morningglory Control Demonstration

Clearly, over the past ten years transgenic herbicide tolerant cotton varieties have changed the way we control weeds in cotton. Past studies have shown that application timing and the incorporation of residual herbicides have had a significant impact on overall weed control and thus cotton lint yields. Prior year's data suggests that delaying applications results in poor control and reduced lint yield. A demonstration was established to compare effective control strategies using both Roundup Ready Flex cotton and traditional Roundup Ready cotton. Pertinent production information and yield results of that demonstration are presented below. Yield and fiber data were used to compare costs and returns of each program.

DP 143 B2RF was planted May 17<sup>th</sup> into non-replicated demonstration plots measuring 128 rows x 2550 feet (approximately 25 acres). The treatments were as follows:

### Treatment #1

Staple LX applied preemergence at 1.5 oz/A in a 13 inch band followed by 22 oz/A of Roundup Original Max + 0.25% Induce + 0.5% Accuquest (ammonium sulfate replacement with drift retardant) applied early post (at the 3-4 leaf cotton stage) followed by 32 oz/A of Roundup Original Max + 0.25% Induce + 0.5% Accuquest applied in a 13 inch band at the 7-8 leaf cotton stage followed by 1 oz/A of Aim + 1 qt/A Direx + 1% v/v crop oil concentrate applied post-directed at the 12-14 leaf cotton stage.

**Total Herbicide Program Cost (with applications): \$46.85**

### Treatment # 2

3.2 oz/A Staple LX + 22 oz/A Roundup Original Max + 0.25% Induce + 0.5% Accuquest applied early post at the 3-4 leaf cotton stage followed by 1 oz/A Aim + 1 qt/A Direx + 1% v/v crop oil concentrate applied post-directed at the 12-14 leaf cotton stage.

**Total Herbicide Program Cost (with applications): \$48.53**

### Treatment # 3

22 oz/A Roundup Original Max + 0.25% Induce + 0.5% Accuquest applied early post at the 3-4 leaf cotton stage followed by 32 oz/A of Roundup Original Max + 0.25% Induce + 0.5% Accuquest applied in a 13 inch band at the 7-8 leaf cotton stage followed by 1 oz/A of Aim + 1 qt/A Direx + 1% v/v crop oil concentrate applied post-directed at the 12-14 leaf cotton stage.

**Total Herbicide Program Cost (with applications): \$38.92**

All broadcast treatments treatments were applied in 10 gallons of water with a John Deere 4720 sprayer. The post-directed treatments were applied at 15 gallons per acre with a Redball 420 Layby hooded sprayer. All plots received furrow cultivation for the control of volunteer cotton prior to the 7-8 leaf cotton treatments. End of season weed control ratings were taken (September 8, 2006 and are as follows. Treatment #1 provided 95% control of entireleaf morningglory. Treatment #2 provided 75% control of entireleaf morningglory. Treatment #3 provided 95% control of entireleaf morningglory. It should be noted that this was a particularly dry and hot year following a winter with no rainfall for 158 days. Subsoil moisture was very low and available irrigation was limited as well. Throughout the growing season 12.5 inches of irrigation water was applied to each treatment. Insecticides and growth regulators were applied according to standard production practices. Plots were harvested with a John Deere 9965 picker equipped with an Ag Leader yield monitor. Treatment # 1 produced 865 lbs of lint per acre while treatment # 2 produced 590 lbs of lint per acre and treatment # 3 produced 675 lbs of lint per acre. Since these blocks were not replicated fiber data was obtained from the field average. The average micronaire was 4.4, length 1.08, strength 27.0 and uniformity was 78.9. The average color grade was 31. The average loan rate (0.5412) was applied to the yield of each herbicide program. The table below presents the partial returns to each herbicide program.

## Large Plot Morningglory Control Demonstration (cont.)

Table 1. Economic analysis of herbicide programs.

Program (Treatment)	Herb/App. Cost	Yield lbs/A	Gross Income	Partial Return To Herbicide Program
1	\$ 46.85	865	\$ 468.14	\$ 421.29
2	\$ 48.53	590	\$ 319.31	\$ 270.78
3	\$ 38.92	675	\$ 365.31	\$ 326.39

The visual (end of season weed control evaluations) and economic analysis showed that treatment # 1 proved to be both the most effective at controlling entireleaf morningglory and consequently the most economical treatment, with the highest return.

# Agronomic Projects

## Supplemental Fertility Programs with Foliar Applications of Coron

**Planted:** May 12th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	SeedCot lbs/A	Gin %	Yield lbs/A
1	Rec N					3439	0.28	945
	HM9826A	1	qt/a	PINHEAD	C		abc	ab
	HM9870	2	qt/a	MIDBLOOM	D			
2	2/3 N					3399	0.29	970
	HM9754	1	gal/a	INFURROW	B		ab	ab
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
	CORON 25-0-0	1	gal/a	PET.REC.	E			
3	2/3 N					3534	0.29	1016
	HM0404	4	oz/cwt	SEED TRT	A		a	a
	HM9754	1	gal/a	INFURROW	B			
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
4	2/3 N					3406	0.27	902
	HM0425	4	oz/a	INFURROW	B		c	b
	HM9754	1	gal/a	INFURROW	B			
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
	CORON 25-0-0	1	gal/a	PET.REC.	E			
5	2/3 N					3304	0.28	908
	HM0404	4	oz/cwt	SEED TRT	A		abc	ab
	HM0425	4	oz/a	INFURROW	B			
	HM9754	1	gal/a	INFURROW	B			
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
6	Rec N					3406	0.27	913
	HM0404	4	oz/cwt	SEED TRT	A		bc	ab
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
7	Rec N					3593	0.27	951
	HM0425	4	oz/a	INFURROW	B		c	ab
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
8	Rec N					3409	0.28	966
	HM0404	4	oz/cwt	SEED TRT	A		abc	ab
	HM0425	4	oz/a	INFURROW	B			
	HM9826A	1	qt/a	PINHEAD	C			
	HM9870	2	qt/a	MIDBLOOM	D			
LSD (P=.10)						240.4	0.0196	108.2
CV						5.75	5.86	9.4

Means followed by same letter do not significantly differ (P=.10, LSD)

**Supplemental Fertility Programs with Foliar Applications of Coron (cont.)**

Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Fiber Data							
						Mic		Length		Unif.		Strength	
1	Rec N					4.3	ab	1.19	ab	82.6	a	30	a
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
2	2/3 N					4.4	ab	1.19	ab	82.1	a	29	a
	HM9754	1	gal/a	INFURROW	B								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
	CORON 25-0-0	1	gal/a	PET.REC.	E								
3	2/3 N					4.28	ab	1.21	a	82.1	a	30	a
	HM0404	4	oz/cwt	SEED TRT	A								
	HM9754	1	gal/a	INFURROW	B								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
4	2/3 N					4.13	b	1.2	ab	82.3	a	30	a
	HM0425	4	oz/a	INFURROW	B								
	HM9754	1	gal/a	INFURROW	B								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
	CORON 25-0-0	1	gal/a	PET.REC.	E								
5	2/3 N					4.48	a	1.19	ab	82.2	a	29	a
	HM0404	4	oz/cwt	SEED TRT	A								
	HM0425	4	oz/a	INFURROW	B								
	HM9754	1	gal/a	INFURROW	B								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
6	Rec N					4.15	b	1.2	a	82.3	a	30	a
	HM0404	4	oz/cwt	SEED TRT	A								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
7	Rec N					4.3	ab	1.19	ab	82.8	a	30	a
	HM0425	4	oz/a	INFURROW	B								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
8	Rec N					4.38	ab	1.18	b	82.8	a	29	a
	HM0404	4	oz/cwt	SEED TRT	A								
	HM0425	4	oz/a	INFURROW	B								
	HM9826A	1	qt/a	PINHEAD	C								
	HM9870	2	qt/a	MIDBLOOM	D								
LSD (P=.10)						0.3		0.0217		0.985		1.33	
CV						5.65		1.49		0.98		3.69	
Means followed by same letter do not significantly differ (P=.10, LSD)													

**Supplemental Fertility Programs with Foliar Applications of Coron (cont.)**

	Application Description				
	A	B	C	D	E
Application Date:	5/1/2006	5/12/2006	7/1/2006	7/26/2006	8/9/2006
Time of Day:	9:00 AM	10:00 AM	11:00 AM	10:30 AM	9:00 AM
Application Method:	SEED TRT	PLANTING	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLENT	PLANTING	PINHEAD	MIDBLOOM	LATEBLOOM
Application Placement:	SEED	IN-FURROW	BROADCAST	BROADCAST	BROADCAST
Applied By:	HELENA	OSU	OSU	OSU	OSU
Air Temperature, Unit:		79 F	87 F	89 F	85 F
% Relative Humidity:		65	37	29	46
Wind Velocity, Unit:		7 MPH	5 MPH	6 MPH	4 MPH
Wind Direction:		S	SSE	SSE	SW
Soil Temperature, Unit:		69 F	88 F	91 F	91 F
Soil Moisture:		ADEQUATE	ADEQUATE	ADEQUATE	GOOD
% Cloud Cover:		0	0	0	0

	Application Equipment				
	A	B	C	D	E
Appl. Equipment:	Comm.Trtr	JD PLANTER	LEE SPIDER	LEE SPIDER	LEE SPIDER
Operating Pressure:		15	24	24	24
Pressure Unit:		PSI	PSI	PSI	PSI
Nozzle Type:		FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:		8006	11002	11002	11002
Nozzle Spacing, Unit:		40 IN	20 IN	20 IN	20 IN
Nozzles/Row:		1	2	2	2
Ground Speed, Unit:		4 MPH	4 MPH	4 MPH	4 MPH
Incorporation Equip.:		PLANTER			
Hours to Incorp.:		0			
Incorp. Depth, Unit:		1.5 IN			
Carrier:		WATER	WATER	WATER	WATER
Spray Volume:		10	10	10	10
Volume Unit:	4OZ/CWT	GPA	GPA	GPA	GPA
Propellant:		COMP. AIR	COMP.AIR	COMP.AIR	COMP.AIR



### Effects of Tankmixing Quadris with Plant Growth Regulators

**Planted:** May 16th    **Variety:** DP 555 BR    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	9/19/2006 %Open	SeedCot lbs/A	Gin %	Lint Yield lbs/A
1	UNT					37 ab	4469 a	0.243 c	1087.8 a
2	PIX	8	oz/a	1STBLOOM	A	40.5 ab	4077 a	0.246 b	1002.2 a
	PIX	8	oz/a	14 DALT	B				
3	QUADRI	6	oz/a	1STBLOOM	A	37.3 ab	4769 a	0.221 g	1054.2 a
	PIX	8	oz/a	1STBLOOM	A				
	QUADRI	6	oz/a	14 DALT	B				
	PIX	8	oz/a	14 DALT	B				
4	QUADRI	9	oz/a	1STBLOOM	A	38 ab	4186 a	0.257 a	1075.3 a
	PIX	8	oz/a	1STBLOOM	A				
	PIX	8	oz/a	14 DALT	B				
5	QUADRI	6	oz/a	1STBLOOM	A	30 b	4469 a	0.237 d	1061.4 a
	STANCE	3	oz/a	1STBLOOM	A				
	QUADRI	6	oz/a	14 DALT	B				
	STANCE	3	oz/a	14 DALT	B				
6	QUADRI	9	oz/a	1STBLOOM	A	43 a	4485 a	0.226 e	1014.2 a
	STANCE	3	oz/a	1STBLOOM	A				
	STANCE	3	oz/a	14 DALT	B				
7	STANCE	3	oz/a	1STBLOOM	A	35 ab	4453 a	0.223 f	994.85 a
	STANCE	3	oz/a	14 DALT	B				
8	PIX	16	oz/a	1STBLOOM	A	35 ab	4393 a	0.243 c	1068.9 a
LSD (P=.10)						11.3	701.3	0	166.668
CV						25.11	13.06	0	13.11

Means followed by same letter do not significantly differ (P=.10, LSD)

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	Fiber Data			
						Mic	Length	Unif.	Strength
1	UNT					4.3	1.12	81.9	26.4
2	PIX	8	oz/a	1STBLOOM	A	4.2	1.14	80.4	28.8
	PIX	8	oz/a	14 DALT	B				
3	QUADRI	6	oz/a	1STBLOOM	A	4	1.14	81.2	26.5
	PIX	8	oz/a	1STBLOOM	A				
	QUADRI	6	oz/a	14 DALT	B				
	PIX	8	oz/a	14 DALT	B				
4	QUADRI	9	oz/a	1STBLOOM	A	4.3	1.12	82.8	26
	PIX	8	oz/a	1STBLOOM	A				
	PIX	8	oz/a	14 DALT	B				
5	QUADRI	6	oz/a	1STBLOOM	A	4.5	1.18	82.1	29.5
	STANCE	3	oz/a	1STBLOOM	A				
	QUADRI	6	oz/a	14 DALT	B				
	STANCE	3	oz/a	14 DALT	B				
6	QUADRI	9	oz/a	1STBLOOM	A	4.6	1.18	83	30.7
	STANCE	3	oz/a	1STBLOOM	A				
	STANCE	3	oz/a	14 DALT	B				
7	STANCE	3	oz/a	1STBLOOM	A	4.1	1.16	82	28.5
	STANCE	3	oz/a	14 DALT	B				
8	PIX	16	oz/a	1STBLOOM	A	4.5	1.17	82.3	29.8

**Effects of Tankmixing Quadris with Plant Growth Regulators (cont.)**

Application Description

	A	B
Application Date:	7/17/2006	7/26/2006
Time of Day:	10:00 AM	10:15 AM
Application Method:	Spray	SPRAY
Application Timing:	1st Bloom	7-14DALT
Application Placement:	Broadcast	BROADCAST
Applied By:	OSU	OSU
Air Temperature, Unit:	96 f	94 F
% Relative Humidity:	30	28
Wind Velocity, Unit:	5 MPH	5.5 MPH
Wind Direction:	S	S
Soil Temperature, Unit:	98 F	90 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	0	0

Application Equipment

	A	B
Appl. Equipment:	LEE SPIDER	LEE SPIDER
Operating Pressure:	24	24
Pressure Unit:	PSI	PSI
Nozzle Type:	TTJET	TTJET
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Nozzles/Row:	2	2
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume:	10	10
Volume Unit:	GPA	GPA

### Effects of Mepex GinOut Plant Growth Regulator

**Planted:** May 16th    **Variety:** DP 555 BR    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	9/19/2006 % Open	SeedCotton lbs/A	Gin %	Lint Yield lbs/A
1	MEPEX	8	oz/a	PINHEAD	B	36.5 a	5101.2 a	24 b	1224 a
	MEPEX	16	oz/a	7-14DALT	C				
	MEPEX	16	oz/a	7-14DALT	D				
2	MEPEX GINOUT	8	oz/a	PINHEAD	B	32 a	4289.15 c	21 d	901 d
	MEPEX GINOUT	16	oz/a	7-14DALT	C				
	MEPEX GINOUT	16	oz/a	7-14DALT	D				
3	DPX M9E30-002	8	oz/a	PINHEAD	B	32.5 a	4207.4 c	25 a	1052 bc
	DPX M9E30-002	16	oz/a	7-14DALT	C				
	DPX M9E30-002	16	oz/a	7-14DALT	D				
4	MEPEX GINOUT	8	oz/a	PINHEAD	B	30 a	4964.95 ab	22 c	1092 bc
	MEPEX GINOUT	12	oz/a	7-14DALT	C				
	MEPEX	12	oz/a	7-14DALT	D				
	MEPEX	16	oz/a	7-14DALT	E				
5	MEPEX GINOUT	4	oz/a	4-6LFC	A	34.5 a	5068.5 a	22 c	1115 bc
	MEPEX GINOUT	8	oz/a	PINHEAD	B				
	MEPEX GINOUT	16	oz/a	7-14DALT	C				
	MEPEX GINOUT	16	oz/a	7-14DALT	D				
6	PENTIA	8	oz/a	PINHEAD	B	34 a	4485.35 c	25 a	1121 ab
	PENTIA	16	oz/a	7-14DALT	C				
	PENTIA	16	oz/a	7-14DALT	D				
7	STANCE	1.5	oz/a	PINHEAD	B	30 a	4594.35 bc	22 c	1011 c
	STANCE	3	oz/a	7-14DALT	C				
	STANCE	3	oz/a	7-14DALT	D				
8	UNTREATED					28.5 a	4256.45 c	24 b	1022 bc
	LSD (P=.10)					10.36	451.824	0	104.7
	CV					26.41	8.03	0	8.06

Means followed by same letter do not significantly differ (P=.10, LSD)

**Effects of Mepex GinOut Plant Growth Regulator (cont.)**

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	Fiber Data			
						Mic	Length	Unif.	Strength
1	MEPEX	8	oz/a	PINHEAD	B	4.3	1.15	81	28.3
	MEPEX	16	oz/a	7-14DALT	C				
	MEPEX	16	oz/a	7-14DALT	D				
2	MEPEX GINOUT	8	oz/a	PINHEAD	B	4.4	1.18	83	30
	MEPEX GINOUT	16	oz/a	7-14DALT	C				
	MEPEX GINOUT	16	oz/a	7-14DALT	D				
3	DPX M9E30-002	8	oz/a	PINHEAD	B	4.2	1.16	82	27.2
	DPX M9E30-002	16	oz/a	7-14DALT	C				
	DPX M9E30-002	16	oz/a	7-14DALT	D				
4	MEPEX GINOUT	8	oz/a	PINHEAD	B	4.4	1.14	81	28.6
	MEPEX GINOUT	12	oz/a	7-14DALT	C				
	MEPEX	12	oz/a	7-14DALT	D				
	MEPEX	16	oz/a	7-14DALT	E				
5	MEPEX GINOUT	4	oz/a	4-6LFC	A	3.9	1.18	83	28.9
	MEPEX GINOUT	8	oz/a	PINHEAD	B				
	MEPEX GINOUT	16	oz/a	7-14DALT	C				
	MEPEX GINOUT	16	oz/a	7-14DALT	D				
6	PENTIA	8	oz/a	PINHEAD	B	4.2	1.14	82	26.3
	PENTIA	16	oz/a	7-14DALT	C				
	PENTIA	16	oz/a	7-14DALT	D				
7	STANCE	1.5	oz/a	PINHEAD	B	4.4	1.18	82	27
	STANCE	3	oz/a	7-14DALT	C				
	STANCE	3	oz/a	7-14DALT	D				
8	UNTREATED					4.5	1.14	82	28.5

LSD (P=.10)

CV

Means followed by same letter do not significantly differ (P=.10, LSD)

**Effects of Mepex GinOut Plant Growth Regulator (cont.)**

Application Description

	A	B	C	D	E
Application Date:	6/13/2006	6/21/2006	7/1/2006	7/17/2006	7/25/2006
Time of Day:	10:00 AM	9:00 AM	9:30 AM	9:00 AM	10:30 AM
Application Method:	Spray	Spray	Spray	Spray	Spray
Application Timing:	5lf	Pinhead	7-14DALT	7-14DALT	7-14DALT
Application Placement:	broadcast	broadcast	broadcast	broadcast	broadcast
Applied By:	OSU	OSU	OSU	OSU	OSU
Air Temperature, Unit:	81 f	79 f	84 f	90 f	94 f
% Relative Humidity:	50	55	44	32	28
Wind Velocity, Unit:	4 mph	5 mph	6 mph	5 mph	5 mph
Wind Direction:	ESE	SSE	SSE	S	
Soil Temperature, Unit:	85 f	85 f	86 f	94 f	90 f
Soil Moisture:	adequate	adequate	adequate	adequate	adequate
% Cloud Cover:	0	70	0	0	0

Application Equipment

	A	B	C	D	E
Appl. Equipment:	Spider	Spider	Spider	Spider	Spider
Operating Pressure:	24	24	24	24	24
Pressure Unit:	PSI	PSI	PSI	PSI	PSI
Nozzle Type:	TTJ	TTJ	TTJ	TTJ	TTJ
Nozzle Size:	11002	11002	11002	11002	11002
Nozzle Spacing, Unit:	20 in	20 in	20 in	20 in	20 in
Nozzles/Row:	2	2	2	2	2
Ground Speed, Unit:	4 mph	4 mph	4 mph	4 mph	4 mph
Carrier:	water	water	water	water	water
Spray Volume:	10	10	10	10	10
Volume Unit:	gpa	gpa	gpa	gpa	gpa
Propellant:	Comp.Air	Comp.Air	Comp.Air	Comp.Air	Comp.Air

### Effects of Stance Plant Growth Regulator

**Planted:** May 16th    **Variety:** DP 555 BR    **Soil Type:** Clay loam    **Location:** OSU

Trt	Treatment	Rate	Growth	Appl	9/19/2006	SeedCot	Gin	Lint Yield	
No.	Name	Rate	Unit	Stage	Code	Open %	lbs/A	Percent	lbs/A
1	UNTREATED					35.5 cd	4256 b	0.227 e	964.4 b
2	MEPIQUAT CHLORIDE	4	oz/a	MATCH	A	53 ab	4551 ab	0.228 d	1036.08 ab
	MEPIQUAT CHLORIDE	4	oz/a	7-14DALT	B				
	MEPIQUAT CHLORIDE	4	oz/a	7-14DALT	C				
3	STANCE	2	oz/a	MATCH	A	35.3 cd	4878 ab	0.238 b	1158.73 a
	STANCE	2	oz/a	7-14DALT	B				
	STANCE	2	oz/a	7-14DALT	C				
4	STANCE	2.5	oz/a	MATCH	A	42.5 bc	5047 a	0.205 h	1032.13 ab
	STANCE	2.5	oz/a	7-14DALT	B				
	STANCE	2.5	oz/a	7-14DALT	C				
5	STANCE	3	oz/a	MATCH	A	31.5 d	4769 ab	0.222 g	1060.1 ab
	STANCE	3	oz/a	7-14DALT	B				
	STANCE	3	oz/a	7-14DALT	C				
6	STANCE	3	oz/a	7-14DALT	C	38.5 cd	4769 ab	0.226 f	1078.45 ab
7	STANCE	5	oz/a	7-14DALT	C	42 cd	4736 ab	0.243 a	1150.35 a
8	STANCE	3	oz/a	7-14DALT	C	56 a	4818 ab	0.237 c	1140.65 a
	STANCE	5	oz/a	7-14DALT	D				
LSD (P=.10)						10.85	682.9	0	158.952
CV						21.35	11.87	0	12.12

Means followed by same letter do not significantly differ (P=.10, LSD)

Trt	Treatment	Rate	Growth	Appl	Fiber Data				
No.	Name	Rate	Unit	Stage	Code	Mic	Length	Unif.	Strength
1	UNTREATED					4.2	1.13	81.3	28.9
2	MEPIQUAT CHLORIDE	4	oz/a	MATCH	A	4.2	1.16	81.8	29.2
	MEPIQUAT CHLORIDE	4	oz/a	7-14DALT	B				
	MEPIQUAT CHLORIDE	4	oz/a	7-14DALT	C				
3	STANCE	2	oz/a	MATCH	A	4.9	1.14	81.5	26.9
	STANCE	2	oz/a	7-14DALT	B				
	STANCE	2	oz/a	7-14DALT	C				
4	STANCE	2.5	oz/a	MATCH	A	4.8	1.19	81.4	29
	STANCE	2.5	oz/a	7-14DALT	B				
	STANCE	2.5	oz/a	7-14DALT	C				
5	STANCE	3	oz/a	MATCH	A	4.2	1.19	81	28.3
	STANCE	3	oz/a	7-14DALT	B				
	STANCE	3	oz/a	7-14DALT	C				
6	STANCE	3	oz/a	7-14DALT	C	4.2	1.13	80.8	27.8
7	STANCE	5	oz/a	7-14DALT	C	4.6	1.15	80.8	28.6
8	STANCE	3	oz/a	7-14DALT	C	4.9	1.15	83.6	28.9
	STANCE	5	oz/a	7-14DALT	D				

### Effects of Stance Plant Growth Regulator (cont.)

Application Description				
	A	B	C	D
Application Date:	7/1/2006	7/17/2006	7/25/2006	8/15/2006
Time of Day:	9:00 am	9:30 AM	10:00 AM	2:00 PM
Application Method:	Spray	SPRAY	SPRAY	SPRAY
Application Timing:	Matchhead	16 DALT	8 DALT	21 DALT
Application Placement:	Broadcast	BROADCAST	BROADCAST	BROADCAST
Applied By:	OSU	OSU	OSU	OSU
Air Temperature, Unit:	79 F	92 F	93 F	91 F
% Relative Humidity:	52	30	28	45
Wind Velocity, Unit:	6 MPH	5 MPH	5 MPH	6 MPH
Wind Direction:	SSE	S	S	SE
Soil Temperature, Unit:	85 F	99 F	90 F	90 F
Soil Moisture:	ADEQUATE	ADEQUATE	ADEQUATE	ADEQUATE
% Cloud Cover:	0	0	0	15

Application Equipment				
	A	B	C	D
Appl. Equipment:	SPIDER	SPIDER	SPIDER	SPIDER
Operating Pressure:	24	24	24	24
Pressure Unit:	PSI	PSI	PSI	PSI
Nozzle Type:	TEEJET	TEEJET	TEEJET	TEEJET
Nozzle Size:	FLATFAN	FLATFAN	FLATFAN	FLATFAN
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Nozzles/Row:	2	2	2	2
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume:	10	10	10	10
Volume Unit:	GPA	GPA	GPA	GPA
Propellant:	COMP.AIR	COMP.AIR	COMP.AIR	COMP.AIR

### Substituting Cotton Seed Meal for Fertilizer

**Planted:** May 16th    **Variety:** PM 2280 BR    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	SeedCot lbs/plot	Gin Percent	Lint Yield lbs/A
1	UNTREATED					1169 c	0.2148 a	250.75 c
2	COTTON SEED MEAL	200	lb/a	PPI	A	1439 b	0.214 a	307.6 b
3	COTTON SEED MEAL	400	lb/a	PPI	A	1414 b	0.224 a	316.93 b
4	COTTON SEED MEAL	800	lb/a	PPI	A	1610 a	0.2225 a	358.25 a
LSD (P=.10)						102.4	0.01298	25.118
CV						5.61	4.58	6.28

Means followed by same letter do not significantly differ (P=.10, LSD)

Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	Fiber Data				
						Mic	Length	Unif.	Strength	
1	UNTREATED					4.15 b	0.993 b	79.73 a	26.38 a	
2	COTTON SEED MEAL	200	lb/a	PPI	A	4.23 ab	1.008 ab	80.33 a	27.05 a	
3	COTTON SEED MEAL	400	lb/a	PPI	A	4.2 ab	1.005 ab	80.73 a	28.33 a	
4	COTTON SEED MEAL	800	lb/a	PPI	A	4.4 a	1.023 a	80.95 a	28.23 a	
LSD (P=.10)						0.201	0.0241	1.283	2.258	
CV						3.65	1.85	1.23	6.34	

Means followed by same letter do not significantly differ (P=.10, LSD)



### Water Stress Trial: Pre-bloom vs. Post-bloom Irrigation

Four different furrow irrigation regimes were compared against each other in order to determine their effects on lint yields and fiber quality. The treatments were as follows: Treatment # 1 – Normal, solid row, furrow irrigation initiated one week prior to blooming; Treatment # 2 – Delaying the first irrigation until one week after blooming (essentially two weeks later than treatment # 1) again solid row; Treatment # 3 – Initiating irrigation one week prior to bloom but only watering every other furrow; Treatment # 4 – Initiating irrigation one week after blooming and only watering every other furrow. Irrigations following each treatments initiation continued on a weekly basis until the end of the season. Therefore treatments 1 and 3 received 8 weekly irrigations beginning June 30<sup>th</sup> and ending August 24<sup>th</sup>, while treatments 2 and 4 received 6 weekly irrigations beginning July 17<sup>th</sup> and also ending August 24<sup>th</sup>. Each full irrigation consisted of approximately 2” of water per acre, and each skip row irrigation essentially 1” of irrigation water. Yield and fiber quality data are presented below.

**Planted:** May 16th    **Variety:** PM 2280 BR    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	SeedCotton lbs/Acre	Gin Percent	Lint Yield lbs/A
1	Pre-bloom, solid irrig.	3630 a	0.2967 a	1079 a
2	Post bloom, solid irrig.	1903 b	0.277 a	526 c
3	Prebloom, skip row irrig.	3113 a	0.2773 a	867 b
4	Post bloom, skip row irrig.	1862.7 b	0.2833 a	526 c
LSD (P=.10)		629.12	0.02821	183.1
CV		15.09	6.27	15.4

Means followed by same letter do not significantly differ (P=.10, LSD)

Trt No.	Treatment Name	Fiber Data			
		Mic	Length	Unif.	Strength
1	Pre-bloom, solid irrig.	5.47 a	1.117 ab	83.73 a	33.1 a
2	Post bloom, solid irrig.	5.23 a	1.057 b	82.13 b	31.77 ab
3	Prebloom, skip row irrig.	5.2 a	1.127 a	82.6 ab	30.87 b
4	Post bloom, skip row irrig.	5.37 a	1.133 a	83.17 ab	31.03 b
LSD (P=.10)		0.663	0.0606	1.289	1.577
CV		7.86	3.45	0.98	3.14

Means followed by same letter do not significantly differ (P=.10, LSD)

### Effects of Combining Temik with Seed treatments on Lint Yield

**Planted:** May 14th    **Variety:** FM 960 BR    **Soil Type:** Clay loam    **Location:** OSU

Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	SeedCot lbs/A	Gin %	Lint Yield lbs/A
1	FM 960 B2R GAUCHO GRANDE					3059 b	0.248 j	758.3 e
2	FM 960 B2R CRUISER					3117 ab	0.260 i	811 b-e
3	FM 960 B2R AVICTA COMPLETE PAK					3243 ab	0.241 l	783 de
4	FM 960 B2R UNTREATED SEED					3347 a	0.246 k	823.3 a-e
5	FM 960 B2R GAUCHO GRANDE TEMIK	3.5	lb/a	AT PLANT	A	3174 ab	0.282 b	897 a
6	FM 960 B2R CRUISER TEMIK	3.5	lb/a	AT PLANT	A	3151 ab	0.273 f	860.5 abc
7	FM 960 B2R AVICTA COMPLETE PAK TEMIK	3.5	lb/a	AT PLANT	A	3105 ab	0.282 c	876.3 ab
8	FM 960 B2R TEMIK	3.5	lb/a	AT PLANT	A	3059 b	0.289 a	884.5 ab
9	FM 960 B2R GAUCHO GRANDE TEMIK	5	lb/a	AT PLANT	A	3128 ab	0.282 d	880.8 ab
10	FM 960 B2R CRUISER TEMIK	5	lb/a	AT PLANT	A	3082 ab	0.272 g	838 a-d
11	FM 960 B2R AVICTA COMPLETE PAK TEMIK	5	lb/a	AT PLANT	A	3163 ab	0.278 e	880.5 ab
12	FM 960 B2R TEMIK	5	lb/a	AT PLANT	A	2990 b	0.264 h	789.8 cde
LSD (P=.10)						283.1	0	76.04
CV						7.53	0	7.54

Means followed by same letter do not significantly differ (P=.10, LSD)

### Effects of Combining Temik with Seed treatments on Lint Yield

Trt No.	Treatment Name	Rate		Growth Stage	Appl Code	Fiber Data			
		Rate	Unit			Mic	Length	Unif.	Strength
1	FM 960 B2R GAUCHO GRANDE					5.1	1.14	83.3	32.4
2	FM 960 B2R CRUISER					5	1.16	84.4	33.3
3	FM 960 B2R AVICTA COMPLETE PAK					5	1.16	85.5	33.3
4	FM 960 B2R UNTREATED SEED					5.2	1.14	83.6	31.8
5	FM 960 B2R GAUCHO GRANDE					5.1	1.17	83.7	31.6
	TEMIK	3.5	lb/a	AT PLANT	A				
6	FM 960 B2R CRUISER					5.1	1.18	84.2	32.9
	TEMIK	3.5	lb/a	AT PLANT	A				
7	FM 960 B2R AVICTA COMPLETE PAK					5	1.17	83.7	32
	TEMIK	3.5	lb/a	AT PLANT	A				
8	FM 960 B2R TEMIK	3.5	lb/a	AT PLANT	A	5	1.17	82.9	32.5
9	FM 960 B2R GAUCHO GRANDE					4.9	1.15	84.1	32.1
	TEMIK	5	lb/a	AT PLANT	A				
10	FM 960 B2R CRUISER					5.1	1.16	85	33.8
	TEMIK	5	lb/a	AT PLANT	A				
11	FM 960 B2R AVICTA COMPLETE PAK					5.2	1.18	84.2	33.3
	TEMIK	5	lb/a	AT PLANT	A				
12	FM 960 B2R TEMIK	5	lb/a	AT PLANT	A	5.2	1.14	82.4	32.5

# Harvest Aid Performance Projects

## Blizzard/Firestorm Defoliation Trial-Irrigated

Planted: May 12th Variety: ST 4554 B2F Soil Type: Clay loam Location: OSU

Rating Date							9/28/2006		10/4/2006		
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Defol. %	Desicc. %	Open %	Defol. %	Desicc. %	
1	BLIZZARD	0.5	oz/a	60-70%OP	A	63.8 b	10 bc	79.3 a	82.5 c	8.8 ab	
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	BLIZZARD	0.5	oz/a	7DAIT	B						
	CROP OIL	1	% v/v	7DAIT	B						
2	BLIZZARD	0.5	oz/a	60-70%OP	A	63.8 b	10 bc	79 ab	90 b	10 a	
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	FIRESTORM	20	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
3	BLIZZARD	0.5	oz/a	60-70%OP	A	62.5 b	12.5 b	81.8 a	88.8 b	11.3 a	
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	GRAMOXONE										
	INTEON	30	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
4	ET	1.5	oz/a	60-70%OP	A	62.5 b	17.5 a	82.5 a	83.8 c	10 a	
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	ET	1.5	oz/a	7DAIT	B						
	CROP OIL	1	% v/v	7DAIT	B						
5	DEF	21	oz/a	60-70%OP	A	75 a	0 d	73.8 b	93.8 a	6.3 b	
	PREP	21	oz/a	60-70%OP	A						
	GRAMOXONE										
	INTEON	30	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
6	BLIZZARD	0.5	oz/a	60-70%OP	A	67.5 b	7.5 c	78.8 ab	85 c	11.3 a	
	FINISH 6 PRO	21	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	FIRESTORM	20	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
7	UNT CHECK					0 c	0 d	77.8 ab	0 d	0 c	
LSD (P=.10)						6.26	3.62	5.3	2.56	3.62	
CV						9.05	35.97	5.47	2.79	35.97	

Means followed by same letter do not significantly differ (P=.10, LSD)

**Blizzard/Firestorm Defoliation Trial-Irrigated (cont.)**

Rating Date						10/4/2006		10/16/2006			
Trt	Treatment	Rate	Rate	Growth	Appl	Open	T. Reg.	B. Reg.			
No.	Name	Rate	Unit	Stage	Code	%	%	%			
1	BLIZZARD	0.5	oz/a	60-70%OP	A	92	a	0	d	15	b
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	BLIZZARD	0.5	oz/a	7DAIT	B						
	CROP OIL	1	% v/v	7DAIT	B						
2	BLIZZARD	0.5	oz/a	60-70%OP	A	91.5	a	11.3	ab	22.5	ab
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	FIRESTORM	20	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
3	BLIZZARD	0.5	oz/a	60-70%OP	A	92.8	a	5	c	18.8	b
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	GRAMOXONE INTEON	30	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
4	ET	1.5	oz/a	60-70%OP	A	92	a	0	d	18.8	b
	FIRSTPICK	48	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	ET	1.5	oz/a	7DAIT	B						
	CROP OIL	1	% v/v	7DAIT	B						
5	DEF	21	oz/a	60-70%OP	A	94	a	12.5	a	28.8	a
	PREP	21	oz/a	60-70%OP	A						
	GRAMOXONE INTEON	30	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
6	BLIZZARD	0.5	oz/a	60-70%OP	A	93.8	a	7.5	bc	22.5	ab
	FINISH 6 PRO	21	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
	FIRESTORM	20	oz/a	7DAIT	B						
	INDUCE	0.25	% v/v	7DAIT	B						
7	UNT CHECK					80	b	0	d	0	c
	LSD (P=.10)					3.07		4.45		7.78	
	CV					2.75		70.14		35.19	

Means followed by same letter do not significantly differ (P=.10, LSD)

## Blizzard/Firestorm Defoliation Trial-Irrigated (cont.)

### Application Description

	A	B
Application Date:	9/22/2006	10/4/2006
Time of Day:	4:00 PM	1:00 PM
Application Method:	SPRAY	SPRAY
Application Timing:	65%OPEN	10DAIT
Application Placement:	BROADCAST	BROADCAST
Applied By:	OSU	OSU
Air Temperature, Unit:	93 F	86 F
% Relative Humidity:	17	39
Wind Velocity, Unit:	6 MPH	4.5 MPH
Wind Direction:	SSW	SSE
Soil Temperature, Unit:	89 F	76 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	0	70

### ET Defoliation Trial-Irrigated

**Planted:** May 12th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Rating Date		10/4/2006									
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Open %		Defol %		Desicc. %	
1	UNT CHECK					77	d	0	e	0	c
2	ET	1.5	oz/a	55%OPEN	A	89.3	abc	72.5	cd	7.5	ab
	ETHEPHON	32	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
3	ET	2	oz/a	55%OPEN	A	88.5	c	71.3	cd	7.5	ab
	ETHEPHON	22	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
4	ET	2	oz/a	55%OPEN	A	90.8	ab	78.8	b	5	b
	ETHEPHON	32	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
5	ET	1	oz/a	55%OPEN	A	87.5	c	70	d	10	a
	GRAMOXONE INTEON	6	oz/a	55%OPEN	A						
	INDUCE	0.5	% v/v	55%OPEN	A						
6	ET	2.75	oz/a	55%OPEN	A	91	a	76.3	bc	7.5	ab
	ETHEPHON	32	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
7	DEF	8	oz/a	55%OPEN	A	91	a	80	ab	0	c
	ETHEPHON	32	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
8	DEF	12	oz/a	55%OPEN	A	88	c	76.3	bc	0	c
	ETHEPHON	32	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
9	DEF	16	oz/a	55%OPEN	A	87.3	c	85	a	0	c
	ETHEPHON	32	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
10	DEF	22	oz/a	55%OPEN	A	88.8	bc	85	a	0	c
	ETHEPHON	22	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
LSD (P=.10)						2.19		5.36		3.42	
CV						2.07		6.4		75.69	

Means followed by same letter do not significantly differ (P=.10, LSD)

**ET Defoliation Trial-Irrigated (cont.)**

Rating Date		10/11/2006									
Trt	Treatment	Rate	Rate	Growth	Appl	Open	Defol	Desicc.			
No.	Name	Rate	Unit	Stage	Code	%	%	%			
1	UNT CHECK					88.3	c	0	e	5	a
2	ET	1.5	oz/a	55%OPEN	A	96.3	a	81.3	bc	0	a
	ETHEPHON	32	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
3	ET	2	oz/a	55%OPEN	A	96.5	a	77.5	cd	0	a
	ETHEPHON	22	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
4	ET	2	oz/a	55%OPEN	A	96.5	a	82.5	ab	0	a
	ETHEPHON	32	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
5	ET	1	oz/a	55%OPEN	A	91.3	bc	73.8	d	0	a
	GRAMOXONE INTEON	6	oz/a	55%OPEN	A						
	INDUCE	0.5	% v/v	55%OPEN	A						
6	ET	2.75	oz/a	55%OPEN	A	95.3	a	78.8	bc	0	a
	ETHEPHON	32	oz/a	55%OPEN	A						
	CROP OIL	1	% v/v	55%OPEN	A						
7	DEF	8	oz/a	55%OPEN	A	93	ab	82.5	ab	0	a
	ETHEPHON	32	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
8	DEF	12	oz/a	55%OPEN	A	95.8	a	80	bc	0	a
	ETHEPHON	32	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
9	DEF	16	oz/a	55%OPEN	A	96.5	a	86.3	a	0	a
	ETHEPHON	32	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
10	DEF	22	oz/a	55%OPEN	A	92.8	ab	82.5	ab	0	a
	ETHEPHON	22	oz/a	55%OPEN	A						
	INDUCE	0.25	% v/v	55%OPEN	A						
LSD (P=.10)						3.77		4.43		0	
CV						3.32		5.07		0	

Means followed by same letter do not significantly differ (P=.10, LSD)



**ET Defoliation Trial-Irrigated (cont.)**

Rating Date		10/17/2006						
Trt	Treatment	Rate	Rate Unit	Growth Stage	Appl Code	T.Reg %	B.Reg. %	
No.	Name	Rate	Unit	Stage	Code	%	%	
1	UNT CHECK					0 g	0 d	
2	ET	1.5	oz/a	55%OPEN	A	16.3 f	16.3 c	
	ETHEPHON	32	oz/a	55%OPEN	A			
	CROP OIL	1	% v/v	55%OPEN	A			
3	ET	2	oz/a	55%OPEN	A	33.8 bcd	20 bc	
	ETHEPHON	22	oz/a	55%OPEN	A			
	CROP OIL	1	% v/v	55%OPEN	A			
4	ET	2	oz/a	55%OPEN	A	17.5 ef	27.5 a	
	ETHEPHON	32	oz/a	55%OPEN	A			
	CROP OIL	1	% v/v	55%OPEN	A			
5	ET	1	oz/a	55%OPEN	A	48.8 a	21.3 abc	
	GRAMOXONE INTEON	6	oz/a	55%OPEN	A			
	INDUCE	0.5	% v/v	55%OPEN	A			
6	ET	2.75	oz/a	55%OPEN	A	30 def	23.8 ab	
	ETHEPHON	32	oz/a	55%OPEN	A			
	CROP OIL	1	% v/v	55%OPEN	A			
7	DEF	8	oz/a	55%OPEN	A	31.3 cde	23.8 ab	
	ETHEPHON	32	oz/a	55%OPEN	A			
	INDUCE	0.25	% v/v	55%OPEN	A			
8	DEF	12	oz/a	55%OPEN	A	45 abc	23.8 ab	
	ETHEPHON	32	oz/a	55%OPEN	A			
	INDUCE	0.25	% v/v	55%OPEN	A			
9	DEF	16	oz/a	55%OPEN	A	21.3 def	22.5 abc	
	ETHEPHON	32	oz/a	55%OPEN	A			
	INDUCE	0.25	% v/v	55%OPEN	A			
10	DEF	22	oz/a	55%OPEN	A	47.5 ab	25 ab	
	ETHEPHON	22	oz/a	55%OPEN	A			
	INDUCE	0.25	% v/v	55%OPEN	A			
	LSD (P=.10)					14.14	6.9	
	CV					40.31	28.13	

Means followed by same letter do not significantly differ (P=.10, LSD)

## ET Defoliation Trial-Irrigated (cont.)

### Application Description

A  
Application Date: 9/28/2006  
Time of Day: 10:00 AM  
Application Method: SPRAY  
Application Timing: 60%OPEN  
Application Placement: BROADCAST  
Applied By: OSU  
Air Temperature, Unit: 64 F  
% Relative Humidity: 30  
Wind Velocity, Unit: 5 MPH  
Wind Direction: NNE  
Soil Temperature, Unit: 72  
Soil Moisture: GOOD  
% Cloud Cover: 25

### Application Equipment

A  
Appl. Equipment: LEE SPIDER  
Operating Pressure: 58  
Pressure Unit: PSI  
Nozzle Type: TURBOTJ  
Nozzle Size: 11002  
Nozzle Spacing, Unit: 20 IN  
Nozzles/Row: 2  
Ground Speed, Unit: 4 MPH  
Carrier: WATER  
Spray Volume: 15  
Volume Unit: GPA

### Finish Defoliation Trial-Irrigated

**Planted:** May 12th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Rating Date		9/27/2006									
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Defol. %		Desicc. %		Open %	
1	UNT CHECK					0	g	0	b	79	a
2	FINISH 6 PRO	21	oz/a	60-70%OP	A	70	b	0	b	79	a
	GINSTAR	6	oz/a	60-70%OP	A						
3	PREP	24	oz/a	60-70%OP	A	56.7	c	0	b	76	a
	GINSTAR	6	oz/a	60-70%OP	A						
4	FINISH 6 PRO	21	oz/a	60-70%OP	A	83.3	a	0	b	78.3	a
	DEF	16	oz/a	60-70%OP	A						
5	PREP	24	oz/a	60-70%OP	A	80	ab	0	b	79.7	a
	DEF	16	oz/a	60-70%OP	A						
6	PREP	32	oz/a	60-70%OP	A	20	f	0	b	79.7	a
7	FINISH 6 PRO	32	oz/a	60-70%OP	A	40	e	0	b	79.3	a
8	PREP	24	oz/a	60-70%OP	A	43.3	de	0	b	75.7	a
	GINSTAR	7	oz/a	60-70%OP	A						
9	PREP	32	oz/a	60-70%OP	A	43.3	de	0	b	75.3	a
	GINSTAR	6	oz/a	60-70%OP	A						
10	ETHEPHON	32	oz/a	60-70%OP	A	53.3	cd	10	a	79.7	a
	ET	1.5	oz/a	60-70%OP	A						
LSD (P=.10)						10.38		0		4.77	
CV						14.97		0		4.31	

Means followed by same letter do not significantly differ (P=.10, LSD)

Rating Date		10/4/2006									
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Defol. %		Desicc. %		Open %	
1	UNT CHECK					0	d	0	a	77.7	d
2	FINISH 6 PRO	21	oz/a	60-70%OP	A	95	a	0	a	92	c
	GINSTAR	6	oz/a	60-70%OP	A						
3	PREP	24	oz/a	60-70%OP	A	93.3	ab	0	a	93.7	bc
	GINSTAR	6	oz/a	60-70%OP	A						
4	FINISH 6 PRO	21	oz/a	60-70%OP	A	93.3	ab	0	a	92.3	c
	DEF	16	oz/a	60-70%OP	A						
5	PREP	24	oz/a	60-70%OP	A	88.3	b	0	a	92.3	c
	DEF	16	oz/a	60-70%OP	A						
6	PREP	32	oz/a	60-70%OP	A	76.7	c	0	a	96	ab
7	FINISH 6 PRO	32	oz/a	60-70%OP	A	90	ab	0	a	96.3	ab
8	PREP	24	oz/a	60-70%OP	A	93.3	ab	0	a	93.3	bc
	GINSTAR	7	oz/a	60-70%OP	A						
9	PREP	32	oz/a	60-70%OP	A	95	a	0	a	91	c
	GINSTAR	6	oz/a	60-70%OP	A						
10	ETHEPHON	32	oz/a	60-70%OP	A	92.7	ab	0	a	97	a
	ET	1.5	oz/a	60-70%OP	A						
LSD (P=.10)						5.51		0		3.26	
CV						4.76		0		2.5	

Means followed by same letter do not significantly differ (P=.10, LSD)

### Finish Defoliation Trial-Irrigated (cont.)

Rating Date						10/16/2006			
Trt	Treatment	Rate	Unit	Growth	Appl	T.Reg		B.Reg	
No.	Name	Rate	Unit	Stage	Code	%	%	%	%
1	UNT CHECK					0	e	0	e
2	FINISH 6 PRO	21	oz/a	60-70%OP	A	0	e	25	bc
	GINSTAR	6	oz/a	60-70%OP	A				
3	PREP	24	oz/a	60-70%OP	A	0	e	18	cd
	GINSTAR	6	oz/a	60-70%OP	A				
4	FINISH 6 PRO	21	oz/a	60-70%OP	A	50	b	37	a
	DEF	16	oz/a	60-70%OP	A				
5	PREP	24	oz/a	60-70%OP	A	40	c	30	ab
	DEF	16	oz/a	60-70%OP	A				
6	PREP	32	oz/a	60-70%OP	A	70	a	23	bc
7	FINISH 6 PRO	32	oz/a	60-70%OP	A	15	d	28	ab
8	PREP	24	oz/a	60-70%OP	A	0	e	10	d
	GINSTAR	7	oz/a	60-70%OP	A				
9	PREP	32	oz/a	60-70%OP	A	0	e	18	cd
	GINSTAR	6	oz/a	60-70%OP	A				
10	ETHEPHON	32	oz/a	60-70%OP	A	0	e	27	bc
	ET	1.5	oz/a	60-70%OP	A				
LSD (P=.10)						8.57		8.36	
CV						34.6		27.27	

Means followed by same letter do not significantly differ (P=.10, LSD)

#### Application Description

A

Application Date: 9/22/2006  
 Time of Day: 3:00 PM  
 Application Method: SPRAY  
 Application Timing: 65%OPEN  
 Application Placement: BROADCAST  
 Applied By: OSU  
 Air Temperature, Unit: 90 F  
 % Relative Humidity: 17  
 Wind Velocity, Unit: 4 MPH  
 Wind Direction: S  
 Soil Temperature, Unit: 87 F  
 Soil Moisture: GOOD  
 % Cloud Cover: 0

#### Application Equipment

A

Appl. Equipment: LEE SPIDER  
 Operating Pressure: 58  
 Pressure Unit: PSI  
 Nozzle Type: TTJET  
 Nozzle Size: 11002  
 Nozzle Spacing, Unit: 20 IN  
 Nozzles/Row: 2  
 Ground Speed, Unit: 4 MPH  
 Carrier: WATER  
 Spray Volume: 15  
 Volume Unit: GPA

### Finish Defoliation Trial-Dryland

**Planted:** May 12th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Rating Date		9/21/2006							
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Defol. %	Desicc. %	Open %	
1	UNT CHECK					0 e	0 b	90	ab
2	FINISH 6 PRO	16	oz/a	60-70%OP	A	93.8 a	0 b	87.5	b
	GINSTAR	4	oz/a	60-70%OP	A				
3	FINISH 6 PRO	16	oz/a	60-70%OP	A	90 ab	0 b	94	ab
	DEF	6	oz/a	60-70%OP	A				
4	FINISH 6 PRO	16	oz/a	60-70%OP	A	93.3 a	0 b	93.5	ab
	DEF	8	oz/a	60-70%OP	A				
5	PREP	16	oz/a	60-70%OP	A	88.8 ab	0 b	95.5	a
	DEF	8	oz/a	60-70%OP	A				
6	PREP	32	oz/a	60-70%OP	A	0 e	0 b	90	ab
7	FINISH 6 PRO	16	oz/a	60-70%OP	A	87.5 b	0 b	88	b
	DEF	4	oz/a	60-70%OP	A				
8	PREP	16	oz/a	60-70%OP	A	87.5 b	0 b	88	b
	GINSTAR	4	oz/a	60-70%OP	A				
9	PREP	16	oz/a	60-70%OP	A	77.5 c	11.3 a	71.5	c
	GINSTAR	5.5	oz/a	60-70%OP	A				
10	FINISH 6 PRO	16	oz/a	60-70%OP	A	40 d	0 b	89	ab
LSD (P=.10)						5.35	0.95	7.31	
CV						6.73	70.27	6.84	

Means followed by same letter do not significantly differ (P=.10, LSD)

Rating Date		9/28/2006							
Trt No.	Treatment Name	Rate	Rate Unit	Growth Stage	Appl Code	Defol. %	Desicc. %	Open %	
1	UNT CHECK					0 e	0 a	90	cd
2	FINISH 6 PRO	16	oz/a	60-70%OP	A	98.8 a	0 a	96.8	a
	GINSTAR	4	oz/a	60-70%OP	A				
3	FINISH 6 PRO	16	oz/a	60-70%OP	A	92.5 c	0 a	96.5	a
	DEF	6	oz/a	60-70%OP	A				
4	FINISH 6 PRO	16	oz/a	60-70%OP	A	92.5 c	0 a	91.3	bc
	DEF	8	oz/a	60-70%OP	A				
5	PREP	16	oz/a	60-70%OP	A	93.8 bc	0 a	95.8	ab
	DEF	8	oz/a	60-70%OP	A				
6	PREP	32	oz/a	60-70%OP	A	27.5 d	0 a	91.8	abc
7	FINISH 6 PRO	16	oz/a	60-70%OP	A	90 c	0 a	91	bc
	DEF	4	oz/a	60-70%OP	A				
8	PREP	16	oz/a	60-70%OP	A	97.5 ab	0 a	94.8	abc
	GINSTAR	4	oz/a	60-70%OP	A				
9	PREP	16	oz/a	60-70%OP	A	97.5 ab	0 a	85.5	d
	GINSTAR	5.5	oz/a	60-70%OP	A				
10	FINISH 6 PRO	16	oz/a	60-70%OP	A	31.3 d	0 a	95	abc
LSD (P=.10)						4.21	0	5.06	
CV						4.84	0	4.53	

Means followed by same letter do not significantly differ (P=.10, LSD)

### Finish Defoliation Trial-Dryland (cont.)

Rating Date		10/4/2006						
Trt	Treatment	Rate	Rate	Growth	Appl	T.Reg	B.Reg	
No.	Name	Rate	Unit	Stage	Code	%	%	
1	UNT CHECK					2.5 cd	7.5 c	
2	FINISH 6 PRO	16	oz/a	60-70%OP	A	12.5 bcd	52.5 a	
	GINSTAR	4	oz/a	60-70%OP	A			
3	FINISH 6 PRO	16	oz/a	60-70%OP	A	52.5 a	52.5 a	
	DEF	6	oz/a	60-70%OP	A			
4	FINISH 6 PRO	16	oz/a	60-70%OP	A	37.5 a	30 b	
	DEF	8	oz/a	60-70%OP	A			
5	PREP	16	oz/a	60-70%OP	A	40 a	50 a	
	DEF	8	oz/a	60-70%OP	A			
6	PREP	32	oz/a	60-70%OP	A	0 d	10 c	
7	FINISH 6 PRO	16	oz/a	60-70%OP	A	50 a	32.5 b	
	DEF	4	oz/a	60-70%OP	A			
8	PREP	16	oz/a	60-70%OP	A	17.5 bc	35 b	
	GINSTAR	4	oz/a	60-70%OP	A			
9	PREP	16	oz/a	60-70%OP	A	20 b	35 b	
	GINSTAR	5.5	oz/a	60-70%OP	A			
10	FINISH 6 PRO	16	oz/a	60-70%OP	A	42.5 a	16.3 c	
LSD (P=.10)						15.44	13.63	
CV						46.63	35.22	

Means followed by same letter do not significantly differ (P=.10, LSD)

#### Application Description

A

Application Date: 9/14/2006  
 Time of Day: 10:00 AM  
 Application Method: SPRAY  
 Application Timing: 65%OPEN  
 Application Placement: BROADCAST  
 Applied By: OSU  
 Air Temperature, Unit: 73 F  
 % Relative Humidity: 55  
 Wind Velocity, Unit: 6 MPH  
 Wind Direction: SE  
 Soil Temperature, Unit: 76 F  
 Soil Moisture: GOOD  
 % Cloud Cover: 35

#### Application Equipment

A

Appl. Equipment: LEE SPIDER  
 Operating Pressure: 58  
 Pressure Unit: PSI  
 Nozzle Type: TTJET  
 Nozzle Size: 11002  
 Nozzle Spacing, Unit: 20 IN  
 Nozzles/Row: 2  
 Ground Speed, Unit: 4 MPH  
 Carrier: WATER  
 Spray Volume: 15  
 Volume Unit: GPA

### FirstPick Defoliation Trial-Irrigated

**Planted:** May 12th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Rating Date		9/27/2006								
Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	Open %		Defol. %		Desicc. %
1	FIRSTPICK	1.5	qt/a	65%OPEN	A	77.8	a-e	77.5	c	0 c
	FOLEX	8	oz/a	65%OPEN	A					
2	FIRSTPICK	2	qt/a	65%OPEN	A	67.5	f	76.3	cd	0 c
	FOLEX	8	oz/a	65%OPEN	A					
3	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	79.3	a-e	83.8	ab	0 c
	FOLEX	8	oz/a	65%OPEN	A					
4	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	74.5	e	86.3	a	0 c
	FOLEX	16	oz/a	65%OPEN	A					
5	SUPERBOLL	1.5	pt/a	65%OPEN	A	80.8	ab	77.5	c	0 c
	FOLEX	8	oz/a	65%OPEN	A					
6	FIRSTPICK	1.5	qt/a	65%OPEN	A	75	de	68.8	e	11.3 b
	ET	1.5	oz/a	65%OPEN	A					
	CROP OIL	0.5	% v/v	65%OPEN	A					
7	FIRSTPICK	1.5	qt/a	65%OPEN	A	80.3	abc	71.3	de	10 b
	RESOURCE	6	oz/a	65%OPEN	A					
	CROP OIL	0.5	% v/v	65%OPEN	A					
8	FIRSTPICK	1.5	qt/a	65%OPEN	A	75.5	cde	67.5	e	0 c
	GINSTAR	3	oz/a	65%OPEN	A					
9	FIRSTPICK	2	qt/a	65%OPEN	A	80.3	abc	78.8	bc	0 c
	GINSTAR	3	oz/a	65%OPEN	A					
10	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	76.5	b-e	78.8	bc	0 c
	GINSTAR	5	oz/a	65%OPEN	A					
11	FIRSTPICK	2	qt/a	65%OPEN	A	82.5	a	70	e	15 a
	AIM	0.5	oz/a	65%OPEN	A					
	CROP OIL	0.5	% v/v	65%OPEN	A					
12	UNT CHECK					79.8	a-d	0	f	0 c
	LSD (P=.10)							5.05	5.29	1.71
	CV							5.43	6.33	47.23

Means followed by same letter do not significantly differ (P=.10, LSD)

**FirstPick Defoliation Trial-Irrigated (cont.)**

Rating Date		10/4/2006								
Trt No.	Treatment Name	Rate	Unit	Growth Stage	Appl Code	Open %		Defol. %	Desicc. %	
1	FIRSTPICK	1.5	qt/a	65%OPEN	A	92.8	bcd	88.8	cde	0 a
	FOLEX	8	oz/a	65%OPEN	A					
2	FIRSTPICK	2	qt/a	65%OPEN	A	94.3	abc	90	bcd	0 a
	FOLEX	8	oz/a	65%OPEN	A					
3	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	93.3	bc	91.3	abc	0 a
	FOLEX	8	oz/a	65%OPEN	A					
4	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	93.8	abc	92.5	ab	0 a
	FOLEX	16	oz/a	65%OPEN	A					
5	SUPERBOLL	1.5	pt/a	65%OPEN	A	92.3	cd	86.3	e	0 a
	FOLEX	8	oz/a	65%OPEN	A					
6	FIRSTPICK	1.5	qt/a	65%OPEN	A	93.8	abc	88.8	cde	0 a
	ET	1.5	oz/a	65%OPEN	A					
	CROP OIL	0.5	% v/v	65%OPEN	A					
7	FIRSTPICK	1.5	qt/a	65%OPEN	A	91.8	cd	87.5	de	0 a
	RESOURCE	6	oz/a	65%OPEN	A					
	CROP OIL	0.5	% v/v	65%OPEN	A					
8	FIRSTPICK	1.5	qt/a	65%OPEN	A	90	d	90	bcd	0 a
	GINSTAR	3	oz/a	65%OPEN	A					
9	FIRSTPICK	2	qt/a	65%OPEN	A	93	bc	94.5	a	0 a
	GINSTAR	3	oz/a	65%OPEN	A					
10	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	96.5	a	92.5	ab	0 a
	GINSTAR	5	oz/a	65%OPEN	A					
11	FIRSTPICK	2	qt/a	65%OPEN	A	95.3	ab	91.3	abc	0 a
	AIM	0.5	oz/a	65%OPEN	A					
	CROP OIL	0.5	% v/v	65%OPEN	A					
12	UNT CHECK					78.5	e	0	f	0 a
	LSD (P=.10)							2.93	3.54	0
	CV							2.65	3.56	0

Means followed by same letter do not significantly differ (P=.10, LSD)



**FirstPick Defoliation Trial-Irrigated (cont.)**

Rating Date		10/16/2006							
Trt	Treatment	Rate	Rate Unit	Growth Stage	Appl Code	T.Reg %	B.Reg %		
No.	Name	Rate	Unit	Stage	Code	%	%		
1	FIRSTPICK	1.5	qt/a	65%OPEN	A	47.5	b	42.5	a
	FOLEX	8	oz/a	65%OPEN	A				
2	FIRSTPICK	2	qt/a	65%OPEN	A	37.5	bc	40	ab
	FOLEX	8	oz/a	65%OPEN	A				
3	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	60	a	40	ab
	FOLEX	8	oz/a	65%OPEN	A				
4	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	60	a	37.5	ab
	FOLEX	16	oz/a	65%OPEN	A				
5	SUPERBOLL	1.5	pt/a	65%OPEN	A	45	bc	30	bc
	FOLEX	8	oz/a	65%OPEN	A				
6	FIRSTPICK	1.5	qt/a	65%OPEN	A	35	c	30	bc
	ET	1.5	oz/a	65%OPEN	A				
	CROP OIL	0.5	% v/v	65%OPEN	A				
7	FIRSTPICK	1.5	qt/a	65%OPEN	A	10	d	23.8	cd
	RESOURCE	6	oz/a	65%OPEN	A				
	CROP OIL	0.5	% v/v	65%OPEN	A				
8	FIRSTPICK	1.5	qt/a	65%OPEN	A	1.3	d	15	d
	GINSTAR	3	oz/a	65%OPEN	A				
9	FIRSTPICK	2	qt/a	65%OPEN	A	0	d	23.8	cd
	GINSTAR	3	oz/a	65%OPEN	A				
10	FINISH 6 PRO	1.3	pt/a	65%OPEN	A	0	d	20	cd
	GINSTAR	5	oz/a	65%OPEN	A				
11	FIRSTPICK	2	qt/a	65%OPEN	A	2.5	d	21.3	cd
	AIM	0.5	oz/a	65%OPEN	A				
	CROP OIL	0.5	% v/v	65%OPEN	A				
12	UNT CHECK					0	d	0	e
	LSD (P=.10)					10.16		10.45	
	CV					34.02		32.26	

Means followed by same letter do not significantly differ (P=.10, LSD)

## FirstPick Defoliation Trial-Irrigated (cont.)

### Application Description

A  
Application Date: 9/20/2006  
Time of Day: 10:00 AM  
Application Method: spray  
Application Timing: 55-60%ope  
Application Placement: broadcast  
Applied By: OSU  
Air Temperature, Unit: 68 f  
% Relative Humidity: 55  
Wind Velocity, Unit: 5 mph  
Wind Direction: SSE  
Soil Temperature, Unit: 73 f  
Soil Moisture: adequate  
% Cloud Cover: 40

### Application Equipment

A  
Appl. Equipment: 9/20/2006  
Operating Pressure: 24  
Pressure Unit: PSI  
Nozzle Type: TTJ  
Nozzle Size: 11002  
Nozzle Spacing, Unit: 20 in  
Nozzles/Row: 2  
Ground Speed, Unit: 4 mph  
Carrier: water  
Spray Volume: 10  
Volume Unit: gpa  
Propellant: comp.air

### Resource Defoliation Trial-Irrigated

**Planted:** May 12th    **Variety:** ST 4554 B2F    **Soil Type:** Clay loam    **Location:** OSU

Rating Date		10/4/2006									
Trt	Treatment	Rate	Rate	Growth	Appl	Open	Defol.		Desicc.		
No.	Name	Rate	Unit	Stage	Code	%		%		%	
1	RESOURCE	8	oz/a	60-70%OP	A	90.8	b	77.5	cd	2.5	bc
	PREP	1.3	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
2	RESOURCE	6	oz/a	60-70%OP	A	91.5	ab	73.8	d	0	c
	PREP	1.3	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
3	RESOURCE	3	oz/a	60-70%OP	A	83.3	c	55	e	7.5	a
	GRAMOXONE INTEON	4	oz/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
4	RESOURCE	3	oz/a	60-70%OP	A	92.8	ab	85	abc	0	c
	FINISH 6 PRO	1.5	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
5	RESOURCE	3	oz/a	60-70%OP	A	92.8	ab	86.3	ab	0	c
	FINISH 6 PRO	1	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
	GINSTAR	3	oz/a	60-70%OP	A						
6	PREP	1.3	pt/a	60-70%OP	A	91.8	ab	92.5	a	0	c
	DEF	1	pt/a	60-70%OP	A						
7	FINISH 6 PRO	1.3	pt/a	60-70%OP	A	85	c	42.5	f	0	c
	DEF	1	pt/a	60-70%OP	A						
8	PREP	1.3	pt/a	60-70%OP	A	91.5	ab	73.8	d	5	ab
	ET	1.5	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
9	PREP	1	pt/a	60-70%OP	A	93.5	a	83.8	bc	7.5	a
	ET	2	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
10	UNTREATED					76	d	0	g	0	c
LSD (P=.10)								2.72	7.94	4	
CV								2.54	9.85	147.53	

Means followed by same letter do not significantly differ (P=.10, LSD)

**Resource Defoliation Trial-Irrigated (cont.)**

Rating Date		10/11/2006									
Trt	Treatment	Rate	Rate	Growth	Appl	Open		Defol.		Desicc.	
No.	Name	Rate	Unit	Stage	Code	%		%		%	
1	RESOURCE	8	oz/a	60-70%OP	A	94.5	c-f	83	ab	0	a
	PREP	1.3	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
2	RESOURCE	6	oz/a	60-70%OP	A	96.3	abc	81.3	b	0	a
	PREP	1.3	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
3	RESOURCE	3	oz/a	60-70%OP	A	93	ef	62.5	c	2.5	a
	GRAMOXONE INTEON	4	oz/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
4	RESOURCE	3	oz/a	60-70%OP	A	97	ab	85	ab	0	a
	FINISH 6 PRO	1.5	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
5	RESOURCE	3	oz/a	60-70%OP	A	97.3	a	85	ab	0	a
	FINISH 6 PRO	1	pt/a	60-70%OP	A						
	CROP OIL	1	pt/a	60-70%OP	A						
	GINSTAR	3	oz/a	60-70%OP	A						
6	PREP	1.3	pt/a	60-70%OP	A	95.5	a-d	90	a	0	a
	DEF	1	pt/a	60-70%OP	A						
7	FINISH 6 PRO	1.3	pt/a	60-70%OP	A	92.3	f	57.5	c	0	a
	DEF	1	pt/a	60-70%OP	A						
8	PREP	1.3	pt/a	60-70%OP	A	93.5	def	78.8	b	0	a
	ET	1.5	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
9	PREP	1	pt/a	60-70%OP	A	94.8	b-e	83.8	ab	2.5	a
	ET	2	oz/a	60-70%OP	A						
	CROP OIL	1	% v/v	60-70%OP	A						
10	UNTREATED					86.3	g	0	d	0	a
LSD (P=.10)							2.43		7.57		2.54
CV							2.14		8.89		421.64

Means followed by same letter do not significantly differ (P=.10, LSD)

**Resource Defoliation Trial-Irrigated (cont.)**

Rating Date						10/16/2006			
Trt	Treatment	Rate	Rate Unit	Growth Stage	Appl Code	T.Reg %		B.Reg %	
No.	Name								
1	RESOURCE	8	oz/a	60-70%OP	A	27.5	bc	22.5	ab
	PREP	1.3	pt/a	60-70%OP	A				
	CROP OIL	1	pt/a	60-70%OP	A				
2	RESOURCE	6	oz/a	60-70%OP	A	20	c	20	b
	PREP	1.3	pt/a	60-70%OP	A				
	CROP OIL	1	pt/a	60-70%OP	A				
3	RESOURCE	3	oz/a	60-70%OP	A	32.5	b	13.8	cde
	GRAMOXONE INTEON	4	oz/a	60-70%OP	A				
	CROP OIL	1	pt/a	60-70%OP	A				
4	RESOURCE	3	oz/a	60-70%OP	A	8.8	d	20	b
	FINISH 6 PRO	1.5	pt/a	60-70%OP	A				
	CROP OIL	1	pt/a	60-70%OP	A				
5	RESOURCE	3	oz/a	60-70%OP	A	5	d	12.5	de
	FINISH 6 PRO	1	pt/a	60-70%OP	A				
	CROP OIL	1	pt/a	60-70%OP	A				
	GINSTAR	3	oz/a	60-70%OP	A				
6	PREP	1.3	pt/a	60-70%OP	A	32.5	b	26.3	a
	DEF	1	pt/a	60-70%OP	A				
7	FINISH 6 PRO	1.3	pt/a	60-70%OP	A	70	a	10	e
	DEF	1	pt/a	60-70%OP	A				
8	PREP	1.3	pt/a	60-70%OP	A	21.3	c	18.8	bc
	ET	1.5	oz/a	60-70%OP	A				
	CROP OIL	1	% v/v	60-70%OP	A				
9	PREP	1	pt/a	60-70%OP	A	23.8	bc	17.5	bcd
	ET	2	oz/a	60-70%OP	A				
	CROP OIL	1	% v/v	60-70%OP	A				
10	UNTREATED					0	d	0	f
	LSD (P=.10)					9.89		5.7	
	CV					34.03		29.34	

Means followed by same letter do not significantly differ (P=.10, LSD)

## Resource Defoliation Trial-Irrigated (cont.)

### Application Description

A

Application Date:	9/27/2006
Time of Day:	10:00 AM
Application Method:	Spray
Application Timing:	60-70%Op
Application Placement:	Broadcast
Applied By:	OSU
Air Temperature, Unit:	74 f
% Relative Humidity:	44
Wind Velocity, Unit:	6 mph
Wind Direction:	NE
Soil Temperature, Unit:	75 f
Soil Moisture:	Adequate
% Cloud Cover:	30

### Application Equipment

A

Appl. Equipment:	Spider
Operating Pressure:	56
Pressure Unit:	PSI
Nozzle Type:	TTJet
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 in
Nozzles/Row:	2
Ground Speed, Unit:	4 mph
Carrier:	water
Spray Volume:	15
Volume Unit:	GPA
Propellant:	Comp.Air