Extension Cotton
Research & Demonstrations in Oklahoma
2001 Annual Report









Oklahoma State University
Southwest Research & Extension Center
Altus

2001 State Extension Cotton Research Report

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This report contains summarized cotton research data from experiments and demonstrations conducted by OSU and cooperators in 2001. Early-season storms coupled with low temperatures claimed some irrigated acreage, which resulted in replanting through late May and early June. A lack of early-season heat unit accumulation made for a slow start for this years crop, however, the seven-plus inches of rain received in May set the stage for an excellent dryland crop in most areas. High temperatures and below normal rainfall in the months of June and July (less than 1 inch) began to remove hopes of good dryland yields, however, these same conditions aided the development of fruit in well-managed irrigated acreage. Irrigation management proved to be vital again this year due to above-average nighttime temperatures experienced in July. Four to five inches of rainfall, along with below-average temperatures in August, relieved our normal late-season stress on irrigated acreage while promoting growth and development in dryland areas. Overall, irrigated yields were above average while dryland yields varied with date of planting and summer rainfall.

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 also 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 products.

This report involves cooperative efforts from many individuals. We especially appreciate the contributions of Clay Jack and Chad Kelly. We also appreciate the support from producers, County Extension Educators, OSU Agricultural Experiment Station and ginners as well as support from commercial companies. Cotton Incorporated, through the Oklahoma State Support Committee, has provided assistance through partial funding of several projects. The Oklahoma Cotton Cooperative Foundation has made tremendous contributions to our educational programs. A special thanks goes to the following organizations, whose contributions make it possible to maintain and expand our research and demonstration programs and make results available to producers.

Oklahoma Cotton Cooperative Foundation
Delta and Pine Land Company
Helena Chemical
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Griffin Chemical Company
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Cotton Incorporated State Support Committee
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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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County Extension Personnel

Gary Strickland, County Extension Director, Jackson County

Producers and Cooperators

Western Oklahoma State College
Cotton Growers Cooperative
Humphrey Cooperative
Murray, Eddie, and Rann Williams-Altus
Harold and Mitch Worrell-Altus
Keeff & Natalie Felty-Altus
Mike Hogg-Granite
Brad McKinley-Frederick
Doyle Loftiss-Dill City
Mike Johnson-Dill City
Charles Shephard-Butler
Clint Abernathy-Altus
Pat Wallace-Altus
Wayne Winsett-Altus
Gary Jones-Altus
David Horinek, Newkirk,OK
Terry Wheeler-TAES Lubbock, TX

Table of Contents

Variety Performance

Project I.D. # **Project Name**

Weed Control

Harvest Aid Performance

Production & Agronomics

Irrigation & Weather Information for Altus, Oklahoma:

Oklahoma State University Southwest Research and Extension Center (OSUREC)

4 inches of furrow irrigation:

July 2nd, 13th, 24th,
August 2nd, 14th

Western Oklahoma State College (WOSC)

4 inches of furrow irrigation:

June 20th
July 10t

2 inches of furrow irrigation:

July 26th, 16th
August 1st, 7th, 14th & 21st

Month:	Apr-01			May-01			Jun-01		
	Air Temp.			Air Temp.			Air Temp.		
Date	Max.	Min.	Precip.	Max.	Min.	Precip.	Max.	Min.	Precip.
1	77	38	0	87	54	0	82	60	0
2	86	42	0	88	57	0	91	62	0
3	88	56	0	80	63	0.14	102	64	0
4	82	54	0	68	60	0.35	98	69	0
5	79	56	0	78	51	1.59	93	74	0
6	77	65	0	84	53	0	89	68	0
7	82	46	0.07	71	59	0	91	67	0
8	86	49	0	79	50	0.03	92	69	0
9	86	55	0	86	55	0	93	68	0
10	77	60	0	87	62	0	96	65	0
11	80	47	0	85	65	0	99	69	0
12	68	37	0	85	61	0.02	102	72	0
13	72	39	0	83	59	0	99	70	0.27
14	71	44	0	88	61	0	89	76	0
15	75	42	0	92	62	0	92	56	0.04
16	73	44	0	96	65	0	99	59	0
17	55	43	0	90	68	0	99	64	0
18	68	40	0	84	61	0.97	98	67	0
19	85	44	0	85	66	0	97	71	0
20	84	52	0	87	62	2.67	98	67	0
21	82	67	0	69	51	0	84	71	0
22	83	64	0	83	45	0	89	57	0
23	73	46	0.02	93	51	0	92	67	0
24	75	40	0	81	54	0	97	63	0.04
25	85	43	0	82	51	0	96	66	0
26	86	46	0	85	54	0	98	67	0
27	81	46	0	93	57	0.02	100	70	0
28	82	47	0	77	60	0.94	102	65	0
29	81	50	0	82	63	0.37	101	70	0
30	82	54	0	88	64	0.14	93	72	0
31				83	65	0			
Totals	**79**	**49**	**0.09**	**84**	**58**	**7.24**	**95**	**67**	**0.35**

Weather Information (continued)

Month:	Jul-01			Aug-01			Sep-01		
	Air Temp.			Air Temp.			Air Temp.		
Date	Max.	Min.	Precip.	Max.	Min.	Precip.	Max.	Min.	Precip.
1	94	70	0	104	72	0	89	66	0
2	93	67	0	103	72	0	95	66	0
3	98	70	0	101	71	0	94	68	0
4	102	70	0	100	70	0	80	70	0.31
5	102	70	0	104	71	0	82	66	0.93
6	104	73	0	104	74	0	89	67	0.05
7	101	76	0	98	76	0	97	68	0
8	104	75	0	102	72	0	83	56	0
9	105	75	0	99	72	0	79	58	0
10	107	71	0	96	71	0.48	83	49	0
11	108	71	0	89	72	0	89	52	0
12	109	75	0	89	71	0.54	93	58	0
13	92	77	0	89	73	0.03	89	64	0
14	94	76	0	91	69	0.02	86	65	0
15	100	71	0.19	96	69	0	91	67	0.02
16	110	72	0	95	68	0	86	68	0.44
17	106	79	0	97	68	0	86	66	0
18	105	78	0	94	65	1.57	81	67	0
19	104	78	0	97	66	0	85	62	0
20	103	76	0	98	68	0	90	63	0
21	108	77	0	99	71	0	88	63	0
22	109	75	0	95	75	0	91	64	0
23	108	73	0	99	69	0.01	82	63	0
24	105	75	0	100	71	0.24	70	45	0
25	105	76	0	89	69	0	75	42	0
26	103	74	0	81	68	1.34	82	43	0
27	103	76	0	89	67	0.3	88	49	0
28	100	76	0	92	67	0	87	51	0
29	107	75	0.05	87	66	0	85	52	0
30	107	76	0	87	67	0	80	48	0
31	104	79	0	88	68	0			
Totals	**103**	**74**	**0.24**	**95**	**70**	**4.53**	**86**	**60**	**1.75**

IRRIGATED VARIETY DEMONSTRATION-I JACKSON COUNTY

Trial ID: OSUVC0101 **Location:** Williams Farm
Planting Date: May 25 **Planting Rate:** 13.5 lbs/acre
Row Spacing: 38 inches **Harvest Date:** Oct 5th & Nov 1st

Project Summary:
Originally, sixteen varieties, both conventional and transgenic were planted the first week of May, however, storms claimed this planting. Ten transgenic picker-cotton varieties were re-planted on the 25th of May in twelve row plots measuring 2230 feet in length. Stand counts and an evaluation of vigor were made approximately two weeks after planting. Plants were mapped twice during the season, once during bloom and once before harvest aids were applied. Each plot was harvested twice with a John Deere 9970 cotton picker and the lint weighed with a commercial size boll buggy equipped with scales. Seed cotton samples from each harvest were collected from each plot and ginned. Lint samples were sent to the International Textile Center at Lubbock, TX where HVI fiber analysis was performed. Due to the later-than-usual planting date, shorter season varieties produced the most lint. Overall yields were outstanding, while fiber properties varied, due primarily to differences in maturity. Data collected from this project is presented in the tables below.

Trt	Variety	COTTON STAND CT #/METER 6/7/01	COTTON VIGOR RATING 6/8/01	SEEDCOTN 1ST PICK LBS/ACRE 10/12/01	COTTON GIN OUT PERCENT 12/6/01	COTTON LINT-1ST LBS/ACRE 12/6/01	SEEDCOTN 2ND PICK LBS/ACRE 11/1/01
1	DP 451 B/R	11	10	3700	40.8	1510	289
2	DP 655 B/R	13	10	3527	41.8	1474	445
3	SG 125 B/R	12	10	3596	39.8	1431	315
4	ST 4892 B/R	10	8	3392	40.6	1377	615
5	PM 1560 B/R	12	8	3299	38.7	1277	498
6	SG 501 B/R	11	9	3261	38.8	1265	432
7	ST 4793 R	15	10	3269	38.6	1262	652
8	DP 458 B/R	13	10	3203	39.3	1259	469
9	FM 989 B/R	11	10	3011	39.8	1198	731
10	PM 1218 B/R	12	10	3038	34.9	1060	323

Trt	Variety	COTTON GIN OUT PERCENT 12/6/01	COTTON LINT-2ND LBS/ACRE 12/6/01	COTTON TOT.LINT LBS/ACRE 11/1/01	1P FIBER DATA MIC 1/10/02	1P FIBER DATA LENGTH 1/10/02	1P FIBER DATA STRENGTH 1/10/02
1	DP 451 B/R	36.3	105	1615	4.9	1.20	29.5
2	DP 655 B/R	37.6	167	1642	4.9	1.21	33.9
3	SG 125 B/R	37.1	117	1548	4.9	1.17	28.9
4	ST 4892 B/R	40.5	249	1626	5.6	1.21	29.9
5	PM 1560 B/R	40.7	203	1479	4.7	1.22	32.1
6	SG 501 B/R	38.9	168	1433	5.0	1.15	31.4
7	ST 4793 R	41.1	268	1530	5.2	1.20	31.9
8	DP 458 B/R	37.3	175	1434	5.6	1.15	29.7
9	FM 989 B/R	37.7	276	1474	5.4	1.17	32.7
10	PM 1218 B/R	37.6	121	1182	5.6	1.14	30.0

IRRIGATED VARIETY DEMONSTRATION-I JACKSON COUNTY

Trt	Variety	1P FIBER DATA UNIFORM 1/10/02	2P FIBER DATA MIC 1/10/02	2P FIBER DATA LENGTH 1/10/02	2P FIBER DATA STRENGTH 1/10/02	2P FIBER DATA UNIFORM 1/10/02
1	DP 451 B/R	84.7	3.2	1.15	27.6	81.9
2	DP 655 B/R	84.5	3.4	1.18	31.2	84.2
3	SG 125 B/R	84.2	3.5	1.18	27.5	84.3
4	ST 4892 B/R	85.8	4.1	1.16	30.2	84.1
5	PM 1560 B/R	85.2	3.1	1.15	28	83.3
6	SG 501 B/R	86.3	3.7	1.14	27.7	83.7
7	ST 4793 R	84.7	3.9	1.15	28.2	85
8	DP 458 B/R	84.9	3.3	1.18	27.7	83.2
9	FM 989 B/R	85.4	3.6	1.17	29.7	82.5
10	PM 1218 B/R	85.9	3.9	1.12	26.9	83.4

IRRIGATED VARIETY DEMONSTRATION-II JACKSON COUNTY

Trial ID: OSUVC0103 **Location:** OSUREC Farm
Planting Date: May 17 **Planting Rate:** 12.4 lbs/acre
Row Spacing: 40 inches **Harvest Date:** Oct 6th

Project Summary:
Twenty-five varieties, including picker, stripper, conventional, and transgenics, were planted in mid-May into four row plots 1000 feet in length. Seedlings were partially emerged when damaging storms were experienced. The stand was maintained and plants slowly grew out of the damage but were set back significantly. This set back resulted in delayed fruiting which was evident from plant mapping data collected both in-season and before harvest. Cotton stand and vigor evaluations were made in early June. Plots were harvested with a John Deere 9910 picker and lint weighed with a commercial size boll buggy equipped with scales. Seed cotton samples were collected from each plot for ginning purposes. Lint samples were sent to the International Textile Center at Lubbock, TX where HVI fiber analysis was performed. Unfortunately, a sampling error prevented the collection of fiber data from BXN 49 B. However, this variety produced the most lint. For the most part, shorter season picker varieties performed the best.

Trt	Variety	COTTON VIGOR 1-10 6/8/01	COTTON STAND CT #/METER 6/6/01	SEEDCOTN YIELD LBS/ACRE 11/28/01	GIN TURNOUT PERCENT 12/11/01	LINT YIELD LBS/ACRE 12/11/01
1	BXN 49 B	7	10	3232	38.5	1244
2	DP 35 B	9.5	8.5	3216	37.55	1212
3	PM 1560 B/R	9.5	10	3064	38.65	1188
4	DP 655 B/R	10	10.5	3184	37.15	1184
5	ST 4892 B/R	9.5	10.5	2840	38.35	1087
6	DP 458 B/R	10	12	2816	38.05	1078
7	ST 4793 R	10	9	3120	34.5	1076
8	ST 4691 B	8.5	10	2912	36.55	1062
9	SG 501 B/R	9.5	9.5	2888	36.6	1055
10	DP 565	9.5	7.5	2856	36.35	1040
11	ST 474	8	7	2696	38.6	1039
12	DP 451 B/R	9.5	11	2888	34.7	1008
13	FM 832 B	10	8.5	2552	39.05	996
14	SG 125 B/R	10	12	2816	35.3	994
15	FM 958	8	10	2600	38.1	989
16	ST 2454 R	8	11	2400	37.1	890
17	DP 33 B	9	10.5	2424	36.45	887
18	FM 5017	7	8	2240	36.4	815
19	FM 5013	9	11	2256	34.3	774
20	FM 5015	9	7	2096	36.4	763
21	FM 989	9.5	10.5	1920	38.45	740
22	FM 989 B/R	10	10.5	1856	37.4	695
23	PM 1218 B/R	10	9	1776	37.3	659
24	FM 819	10	10	1624	37	602
25	FM 966	10	10.5	992	37.95	377

IRRIGATED VARIETY DEMONSTRATION-II JACKSON COUNTY

Trt	Variety	FIBER DATA MIC 1/10/01	FIBER DATA LENGTH 1/10/01	FIBER DATA STRENGTH 1/10/01	FIBER DATA UNIFORM 1/10/01
1	BXN 47 BG	.	.	.	.
2	DP 35 B	4.4	1.2	29.7	83.6
3	PM 1560 B/R	3.8	1.16	29.2	84
4	DP 655 B/R	4.7	1.16	31.6	82.5
5	ST 4892 B/R	4.9	1.18	28.1	84.3
6	DP 458 B/R	4.5	1.19	32.9	82.5
7	ST 4793 R	5	1.15	28.9	85.3
8	ST 4691 B	5	1.16	28.5	83.7
9	SG 501 B/R	5.1	1.15	30.2	84.2
10	DP 565	4.7	1.17	30.3	83.1
11	ST 474	5	1.14	29.3	83.8
12	DP 451 B/R	5.1	1.17	29.9	85.5
13	FM 832 B	4.5	1.29	31.8	86.7
14	SG 125 B/R	4.9	1.13	28	83.6
15	FM 958	4	1.3	31.2	86.8
16	ST 2454 R	5	1.14	29.7	84.9
17	DP 33 B	4.7	1.22	28.9	82.5
18	FM 5017	5.2	1.14	32.7	85.2
19	FM 5013	5.3	1.12	30.4	85.4
20	FM 5015	5.3	1.12	31.2	84.2
21	FM 989	3.7	1.2	31.4	83.3
22	FM 989 B/R	5	1.25	34.2	84.6
23	PM 1218 B/R	5.6	1.15	29	84.7
24	FM 819	4.6	1.16	32.4	83.3
25	FM 966	4.5	1.2	34.8	85.9

DRYLAND VARIETY DEMONSTRATION-I WASHITA COUNTY

Trial ID: OSUVC0105 **Location:** Loftis Farm
Planting Date: May 17 **Planting Rate:** 13 lbs/acre
Row Spacing: 40 inches **Harvest Date:** Dec 18th

Project Summary:
Ten varieties, including transgenic strippers and pickers, were planted into four row plots in mid-May. Yield estimates are based on representative, hand-harvested samples taken within each plot. Lint yield was determined after samples were ginned. Lint samples were sent to the International Textile Center at Lubbock, TX where HVI fiber analysis was performed. The more indeterminate varieties were more capable of utilizing the late-season rainfall we experienced this year. Therefore, these varieties produced the most lint. Data collected from this demonstration is presented in the table below.

Trt	Treatment	GIN TURNOUT PERCENT 12/12/01	LINT YIELD LBS/ACRE 12/12/01	FIBER DATA MIC 1/10/02	FIBER DATA LENGTH 1/10/02	FIBER DATA STRENGTH 1/10/02	FIBER DATA UNIFORM 1/10/02
1	ST 4892 B/R	18.7	447	5.2	1.15	29.4	84.7
2	ST 4793 R	20.4	379	5.5	1.11	29.3	84.7
3	PM 1560 B/R	19.7	374	5.1	1.15	29.9	82.4
4	ST 2454 R	18.9	363	5	1.11	30.2	85
5	PM 2280 B/R	16.4	325	4.7	1.1	30.9	82.6
6	PM 2379 RR	15.1	315	4.9	1.13	31.7	85.5
7	PM 2200 RR	15.3	283	4.6	1.11	32.6	83.8
8	PM 2326 B/R	16.8	282	4.8	1.08	31.1	83.9
9	PM 2326 RR	16.8	260	5.1	1.07	30.7	30.7
10	PM 2156 RR	15.5	222	5.2	1.04	28.5	82.1

DRYLAND VARIETY DEMONSTRATION-II TILLMAN COUNTY

Trial ID: OSUVC0106 **Location:** McKinnley Farm
Planting Date: June 13th **Planting Rate:** 7.5 lbs/acre
Row Spacing: 40 inches **Harvest Date:** Dec 19th

Project Summary:
Ten varieties, including transgenic strippers and pickers, were planted into four row plots in mid-June. Yield estimates are based on representative, hand-harvested samples taken within each plot. Lint yield was determined after samples were ginned. Lint samples were sent to the International Textile Center at Lubbock, TX where HVI fiber analysis was performed. Once again, the more indeterminate varieties were more capable of utilizing the late-season rainfall experienced this year. Generally, these varieties produced the most lint. Data collected from this demonstration is presented in the table below.

Trt	Treatment	GIN TURNOUT PERCENT 12/18/01	LINT YIELD LBS/ACRE 12/18/01	FIBER DATA MIC 1/10/02	FIBER DATA LENGTH 1/10/02	FIBER DATA STRENGTH 1/10/02	FIBER DATA UNIFORM 1/10/02
1	PM 2379 RR	17.2	447	4.3	1.13	28.3	84.9
2	ST 4793 RR	19	446	5.1	1.14	28.6	85.2
3	ST 2454 RR	18.5	370	4.8	1.12	28.2	83.4
4	ST 4892 BG/RR	17.7	351	4.6	1.12	28.9	84.4
5	PM 1560 BG/RR	17.8	275	4	1.2	29.8	84.4
6	PM 2280 BG/RR	14.8	248	4.2	1.16	32.4	84.5
7	PM 2156 RR	13.7	225	4.5	1.04	28.1	83.8
8	PM 2326 RR	15	176	5.3	1.08	31	81.9
9	PM 2326 BG/RR	14.4	149	5	1.1	31	83.8
10	PM 2200 RR	13.9	129	4.7	1.12	29.2	84.5

DRYLAND VARIETY DEMONSTRATION-III GREER COUNTY

Trial ID: OSUVC0107
Planting Date: June 5th
Row Spacing: 40 inches
Location: Mike Hogg Farm
Planting Rate: 10 lbs/acre
Harvest Date: Dec 28th

Project Summary:
Seven transgenic stripper varieties were planted into four row plots in early June. Yield estimates are based on representative, hand-harvested samples taken within each plot. Lint yield was determined after samples were ginned. Lint samples were sent to the International Textile Center at Lubbock, TX where HVI fiber analysis was performed. Excellent yield and fiber quality data was produced from all varieties within this demonstration. Data collected from this demonstration is presented in the table below.

Trt	Treatment	GIN TURNOUT PERCENT 12/12/01	LINT YIELD LBS/ACRE 12/12/01	FIBER DATA MIC 1/10/02	FIBER DATA LENGTH 1/10/02	FIBER DATA STRENGTH 1/10/02	FIBER DATA UNIFORM 1/10/02
1	PM 2280 B/R	16	731	3.6	1.18	29.7	83.1
2	ST 2454 R	15.7	668	3.6	1.15	27.7	83.9
3	PM 2379 RR	16.5	632	4.3	1.15	29.9	85.5
4	PM 2156 RR	16.8	568	5.1	1.04	26.7	83.5
5	PM 2200 RR	16.3	531	4.4	1.19	30.3	84.8
6	PM 2326 RR	16.5	419	4.9	1.15	32.1	84.2
7	PM 2326 B/R	14.5	313	4.8	1.12	30.9	83.8

WEED CONTROL WITH BUCTRIL PLACEMENT AND ADDITIVES

TRIAL ID:	AVEWC0101	**LOCATION:**	OSUREC
VARIETY:	BXN 47	**PLANTING DATE:**	JUN 4TH
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:
The objective of this trial was to evaluate the effectiveness of Buctril herbicide when applied in a band, and also when applied with different types of adjuvants. Pitted morningglory was effectively controlled regardless of application technique (band or broadcast) early in the season. However, later in the season banding was slightly less effective than the broadcast application when applied at the 1 pt/a rate. Lowering the rate of Buctril when applied in a band resulted in poorer control of pitted morningglory. Pitted morningglory control was unaffected by the differences in adjuvants.

Weed							PITTEDMG	PITTEDMG
Rating Data Type							CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT
Rating Date							7/10/01	7/18/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	UNTREATED CHECK							0 d	0 c
2	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	90.7 ab	95.3 a
3	BUCTRIL	4	EC	1	PT/A	EP-BROAD	A	91.3 ab	96.7 a
4	BUCTRIL	4	EC	0.75	PT/A	EP-BAND	B	85 c	91 b
5	BUCTRIL	4	EC	1	PT/A	EP-BAND	B	93.3 a	90.7 b
6	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	94.3 a	96 a
6	CROP OIL CONCENTRATE	100	L	1	% V/V	EP-BROAD	A		
7	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	95 a	97 a
7	NON-IONIC SURFACTANT	100	L	0.25	% V/V	EP-BROAD	A		
8	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	86.7 bc	96 a
8	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	EP-BROAD	A		
9	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	95 a	95.7 a
9	METHYLATED SEED OIL	100	L	1.5	PT/A	EP-BROAD	A		
LSD (P=.05)								5.56	2.63
Standard Deviation								3.21	1.52
CV								3.96	1.8

Means followed by same letter do not significantly differ (P=.05, LSD)

WEED CONTROL WITH BUCTRIL PLACEMENT AND ADDITIVES

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/24/01	PITTEDMG CONTROL PERCENT 8/21/01
1	UNTREATED CHECK							0 c	0 c
2	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	90 a	66.7 a
3	BUCTRIL	4	EC	1	PT/A	EP-BROAD	A	90.3 a	76.7 a
4	BUCTRIL	4	EC	0.75	PT/A	EP-BAND	B	80 b	45 b
5	BUCTRIL	4	EC	1	PT/A	EP-BAND	B	88 a	71.7 a
6	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	92.7 a	73.3 a
6	CROP OIL CONCENTRATE	100	L	1	% V/V	EP-BROAD	A		
7	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	94.7 a	71.7 a
7	NON-IONIC SURFACTANT	100	L	0.25	% V/V	EP-BROAD	A		
8	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	92 a	75 a
8	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	EP-BROAD	A		
9	BUCTRIL	4	EC	0.75	PT/A	EP-BROAD	A	91.7 a	70 a
9	METHYLATED SEED OIL	100	L	1.5	PT/A	EP-BROAD	A		
LSD (P=.05)								7.59	12.11
Standard Deviation								4.38	7
CV								5.48	11.45

Means followed by same letter do not significantly differ (P=.05, LSD)

WEED CONTROL WITH BUCTRIL PLACEMENT AND ADDITIVES

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	6/26/01	7/11/01
Time of Day:	1:00 PM	9:30 AM
Application Method:	SPRAY	SPRAY
Application Timing:	EARLYPOST	MIDPOST
Applic. Placement:	BAND & BC	BAND&BC
Air Temp., Unit:	91 F	88 F
% Relative Humidity:	45	37
Wind Velocity, Unit:	9 MPH	5.2 MPH
Soil Temp., Unit:	87 F	92 F
Soil Moisture:	MARGINAL	ADEQUATE
% Cloud Cover:	0	0

WEED STAGE AT EACH APPLICATION		
	A	**B**
	PITTEDMG	PITTEDMG
	1-3 INCH	2-6 INCH

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD HI-BOY	JD HI-BOY
Operating Pressure:	28-30 PSI	30 PSI
Nozzle Type:	TJ EVS/VS	TJFLATFAN
Nozzle Size:	8001/015	8001/015
Nozzles/Row:	2	2
Band Width, Unit:	13 IN	13 IN
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA
Propellant:	CO2	CO2

WEED CONTROL WITH LIBERTY POST-DIRECTED

AVENTIS CROP PROTECTION

TRIAL ID:	AVEWC0102	**LOCATION:**	OSUREC
VARIETY:	PM 1218 B/R	**PLANTING DATE:**	JUN 4TH
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to evaluate the effectiveness of post-directed Liberty herbicide rates and tankmix combinations compared to a standard treatment. The lower rate of Liberty applied alone was equally as effective as the higher rate, but less effective compared to the standard (Caparol plus MSMA) seven days after application. When tankmixed with Direx, greater pitted morningglory control was realized when the Liberty rate was increased from 21 oz/a to 28 oz/a. Later in the season, Liberty/Direx tankmixtures were equally as effective as Caparol plus MSMA.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/30/01 7 DA-A	PITTEDMG CONTROL PERCENT 8/9/01 17 DA-A	PITTEDMG CONTROL PERCENT 8/30/01 38 DA-A
1	UNTREATED							0 d	0 d	0 f
2	LIBERTY	1.67	L	28	OZ/A	PD	A	89 c	70 c	50 e
2	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	PD	A			
3	LIBERTY	1.67	L	34	OZ/A	PD	A	90.3 abc	76.7 bc	60 de
3	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	PD	A			
4	LIBERTY	1.67	L	28	OZ/A	PD	A	95 a	94 a	86.7 a
4	DIREX	4	L	1.5	PT/A	PD	A			
4	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	PD	A			
5	LIBERTY	1.67	L	28	OZ/A	PD	A	93.3 abc	84 ab	70 cd
5	BUCTRIL	4	EC	1	PT/A	PD	A			
5	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	PD	A			
6	LIBERTY	1.67	L	24	OZ/A	PD	A	94.3 ab	87.3 a	71 bc
6	BUCTRIL	4	EC	1	PT/A	PD	A			
6	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	PD	A			
7	LIBERTY	1.67	L	21	OZ/A	PD	A	90 bc	86.7 ab	81 ab
7	DIREX	4	L	1.5	PT/A	PD	A			
7	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	PD	A			
8	CAPAROL	4	L	1.6	PT/A	PD	A	95 a	89.7 a	76 abc
8	MSMA	6	EC	2.7	PT/A	PD	A			
LSD (P=.05)								4.7	10.27	10.78
Standard Deviation								2.69	5.86	6.15
CV								3.32	7.97	9.95

Means followed by same letter do not significantly differ (P=.05, LSD)

WEED CONTROL WITH LIBERTY POST-DIRECTED
AVENTIS

APPLICATION DESCRIPTION		APPLICATION EQUIPMENT	
	A		**A**
Application Date:	7/23/01	**Appl. Equipment:**	REDBALL
Time of Day:	7:30 AM	**Operating Pressure:**	25 PSI
Application Method:	SPRAY	**Nozzle Type:**	TJFLATFAN
Application Timing:	LATEPOST	**Nozzle Size:**	8001/003
Applic. Placement:	DIRECTED	**Nozzles/Row:**	3
Air Temp., Unit:	79.5 F	**Ground Speed, Unit:**	4 MPH
% Relative Humidity:	51	**Carrier:**	WATER
Wind Velocity, Unit:	2 MPH	**Spray Volume, Unit:**	15 GPA
Soil Temp., Unit:	85 F	**Propellant:**	CO2
Soil Moisture:	ADEQUATE		
% Cloud Cover:	0		

PROWL IN ROUNDUP READY COTTON

BASF

TRIAL ID:	BASWC0101	**LOCATION:**	WOSC
VARIETY:	SG 125 B/R	**PLANTING DATE:**	June 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:
The purpose of this trial was to evaluate the effectiveness of Prowl and Outlook herbicides within a Roundup Ready cotton system. The early-season observation indicates that Caparol applied preemergence proved to be beneficial increasing pigweed control significantly. However, following all treatments with an application of Roundup Ultramax completely controlled pigweed populations according to the July observation. Tankmixing Outlook with Roundup Ultramax increased late-season pigweed control compared to two applications of Roundup Ultramax alone. All treatments except for Prowl PPI followed by one application of Roundup Ultramax increased lint yield significantly compared to the untreated check. Fiber analysis revealed some effects of weed competition on fruit development and overall maturity. Treated plots typically had higher micronaire as a result of late-season competition-induced stress.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PIGWEED CONTROL PERCENT 6/28/01	PIGWEED CONTROL PERCENT 7/10/01	PIGWEED CONTROL PERCENT 8/7/01
	Weed							PIGWEED	PIGWEED	PIGWEED
	Rating Data Type							CONTROL	CONTROL	CONTROL
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							6/28/01	7/10/01	8/7/01
1	PROWL	3..3	EC	2.4	PT/A	PPI	A	73.3 b	100 a	100 a
1	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
2	PROWL	3..3	EC	2.4	PT/A	PPI	A	91.7 a	100 a	100 a
2	CAPAROL	4	L	3.2	PT/A	PRE	B			
2	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
3	PROWL	3..3	EC	2.4	PT/A	PPI	A	71.7 b	100 a	100 a
3	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
3	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	PD	D			
4	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C	0 c	100 a	81.7 b
4	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	PD	D			
5	OUTLOOK	6	EC	1	PT/A	EP 3-4 L	C	0 c	100 a	100 a
5	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
6	UNTREATED CHECK							0 c	0 b	0 c
	LSD (P=.05)							3.95	0	2.14
	Standard Deviation							2.17	0	1.18
	CV							5.51	0	1.47

Means followed by same letter do not significantly differ (P=.05, LSD)

PROWL IN ROUNDUP READY COTTON

BASF

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PIGWEED CONTROL PERCENT 8/21/01	SEEDCOTN YIELD LBS/PLOT 11/5/01	GIN TURNOUT PERCENT 12/3/01
1	PROWL	3.	.3 EC	2.4	PT/A	PPI	A	100 a	25.93 ab	36.53 a
1	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	EP 3-4 L	C			
2	PROWL	3.	.3 EC	2.4	PT/A	PPI	A	100 a	27.73 a	36.83 a
2	CAPAROL		4 L	3.2	PT/A	PRE	B			
2	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	EP 3-4 L	C			
3	PROWL	3.	.3 EC	2.4	PT/A	PPI	A	100 a	29.03 a	35.93 a
3	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	EP 3-4 L	C			
3	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	PD	D			
4	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	EP 3-4 L	C	100 a	27.97 a	36.93 a
4	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	PD	D			
5	OUTLOOK		6 EC	1	PT/A	EP 3-4 L	C	90 b	29.27 a	37.33 a
5	ROUNDUP ULTRAMAX	3.	.7 AS	26	OZ/A	EP 3-4 L	C			
6	UNTREATED CHECK							0 c	23.3 b	37.07 a
LSD (P=.05)								0	4.181	1.471
Standard Deviation								0	2.298	0.809
CV								0	8.45	2.2

Means followed by same letter do not significantly differ (P=.05, LSD)

PROWL IN ROUNDUP READY COTTON

BASF

Crop Code							LINT	FIBER	FIBER
Rating Data Type							YIELD	DATA	DATA
Rating Unit							LBS/ACRE	MIC	LENGTH
Rating Date							12/3/01	1/10/02	1/10/02
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	PROWL	3..3	EC	2.4	PT/A	PPI	A	1240 ab	3.47 cd	1.183 a
1	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
2	PROWL	3..3	EC	2.4	PT/A	PPI	A	1338 a	3.7 bc	1.14 b
2	CAPAROL	4	L	3.2	PT/A	PRE	B			
2	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
3	PROWL	3..3	EC	2.4	PT/A	PPI	A	1367 a	3.43 d	1.18 ab
3	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
3	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	PD	D			
4	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C	1353 a	3.63 bcd	1.167 ab
4	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	PD	D			
5	OUTLOOK	6	EC	1	PT/A	EP 3-4 L	C	1431 a	3.77 b	1.18 ab
5	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C			
6	UNTREATED CHECK							1132 b	4.07 a	1.14 b
LSD (P=.05)								204.9	0.234	0.0411
Standard Deviation								112.6	0.129	0.0226
CV								8.6	3.5	1.94

Means followed by same letter do not significantly differ (P=.05, LSD)

PROWL IN ROUNDUP READY COTTON

BASF

Crop Code							FIBER	FIBER
Rating Data Type							DATA	DATA
Rating Unit							STRENGTH	UNIFORM
Rating Date							1/10/02	1/10/02
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	PROWL	3..3	EC	2.4	PT/A	PPI	A	27.73 a	83.17 a
1	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C		
2	PROWL	3..3	EC	2.4	PT/A	PPI	A	26.9 a	83.77 a
2	CAPAROL	4	L	3.2	PT/A	PRE	B		
2	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C		
3	PROWL	3..3	EC	2.4	PT/A	PPI	A	27.2 a	83.5 a
3	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C		
3	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	PD	D		
4	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C	27.43 a	83.77 a
4	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	PD	D		
5	OUTLOOK	6	EC	1	PT/A	EP 3-4 L	C	27.7 a	83.97 a
5	ROUNDUP ULTRAMAX	3..7	AS	26	OZ/A	EP 3-4 L	C		
6	UNTREATED CHECK							26.47 a	83.8 a
LSD (P=.05)								1.604	1.047
Standard Deviation								0.882	0.575
CV								3.24	0.69

Means followed by same letter do not significantly differ (P=.05, LSD)

PROWL IN ROUNDUP READY COTTON

BASF

APPLICATION DESCRIPTION				
	A	**B**	**C**	**D**
Application Date:	4/5/01	5/11/01	6/28/01	8/7/01
Time of Day:	5:15 PM	9:30 AM	9:00 AM	8:30 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PPI	PREEMERGE	EARLYPOST	LATEPOST
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST	DIRECTED
Air Temp., Unit:	78.6 F	70 F	80 F	82.5 F
% Relative Humidity:	68	60	47	49
Wind Velocity, Unit:	7.3 MPH	7.5 MPH	6.6 MPH	2.5 MPH
Soil Moisture:	ADEQUATE	GOOD	DRY	ADEQUATE
% Cloud Cover:	100	30	0	75

WEED STAGE AT EACH APPLICATION				
	A	**B**	**C**	**D**
	NA	NA	1-4 INCH	2-6 INCH

APPLICATION EQUIPMENT				
	A	**B**	**C**	**D**
Appl. Equipment:	BICYCLE	BICYCLE	JD HI-BOY	JD HI-BOY
Operating Pressure:	27 PSI	27 PSI	30 PSI	30 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	8001 VS	8001 VS	8015 VS	8015 VS
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Nozzles/Row:	2			2
Ground Speed, Unit:	2.5 MPH	2.5 MPH	4 MPH	4 MPH
Incorporation Equip.:	PM FB RC*			
Hours to Incorp.:	0.2			
Incorp. Depth, Unit:	2 IN			
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	10 GPA	10 GPA
Propellant:	CO2	CO2	CO2	CO2

STAPLE PLUS WEED MANAGEMENT OPTIONS

DUPONT

TRIAL ID:	DUPWC0101	**LOCATION:**	OSUREC
VARIETY:	PM 1218 B/R	**PLANTING DATE:**	June 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The purpose of this trial was to determine the effectiveness of Staple Plus on pitted morningglory. All treatments effectively controlled pitted morningglory early in the season. By late-season treatment performance began to separate. Due to extremely dense populations of pitted morningglory no treatments provided season-long control. However, treatments including Staple were significantly more effective than any application(s) of Roundup Ultramax alone.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	App Code	PITTEDMG CONTROL PERCENT 7/11/01	PITTEDMG CONTROL PERCENT 8/6/01	PITTEDMG CONTROL PERCENT 9/5/01
1	UNTREATED CHECK							0 b	0 c	0 d
2	STAPLE	85	WP	0.5	OZ A/A	EP-2-3L	B	91.7 a	76.7 ab	53.3 ab
2	ROUNDUP ORIGINAL	4	SL	12	OZ A/A	EP-2-3L	B			
2	NIS		L	0.25	% V/V	EP-2-3L	B			
3	STAPLE	85	WP	0.68	OZ A/A	EP-2-3L	B	91.7 a	70 ab	51.7 ab
3	ROUNDUP ORIGINAL	4	SL	16	OZ A/A	EP-2-3L	B			
3	NIS		L	0.25	% V/V	EP-2-3L	B			
4	STAPLE	85	WP	0.34	OZ A/A	EP-1L	A	90 a	91 a	53.3 ab
4	ROUNDUP ORIGINAL	4	SL	8	OZ A/A	EP-1L	A			
4	NIS		L	0.25	% V/V	EP-1L	A			
4	STAPLE	85	WP	0.34	OZ A/A	EP-3-4L	C			
4	ROUNDUP ORIGINAL	4	SL	8	OZ A/A	EP-3-4L	C			
4	NIS		L	0.25	% V/V	EP-3-4L	C			
5	STAPLE	85	WP	0.34	OZ A/A	EP-1L	A	91.7 a	93.7 a	63.3 a
5	ROUNDUP ORIGINAL	4	SL	8	OZ A/A	EP-1L	A			
5	NIS		L	0.25	% V/V	EP-1L	A			
5	STAPLE	85	WP	0.5	OZ A/A	EP-3-4L	C			
5	ROUNDUP ORIGINAL	4	SL	12	OZ A/A	EP-3-4L	C			
5	NIS		L	0.25	% V/V	EP-3-4L	C			
6	STAPLE	85	WP	0.5	OZ A/A	EP-1L	A	91.7 a	93.3 a	56.7 a
6	ROUNDUP ORIGINAL	4	SL	12	OZ A/A	EP-1L	A			
6	NIS		L	0.25	% V/V	EP-1L	A			
6	STAPLE	85	WP	0.5	OZ A/A	EP-3-4L	C			
6	ROUNDUP ORIGINAL	4	SL	12	OZ A/A	EP-3-4L	C			
6	NIS		L	0.25	% V/V	EP-3-4L	C			

Means followed by same letter do not significantly differ (P=.05, LSD)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	App Code	PITTEDMG CONTROL PERCENT 7/11/01	PITTEDMG CONTROL PERCENT 8/6/01	PITTEDMG CONTROL PERCENT 9/5/01
	Weed									
	Rating Data Type									
	Rating Unit									
	Rating Date									
7	ROUNDUP ULTRAMAX	5	SL	12	OZ A/A	EP-2-3L	B	90 a	55 b	35 c
8	ROUNDUP ULTRAMAX	5	SL	16	OZ A/A	EP-2-3L	B	90.7 a	82.3 a	35 c
9	ROUNDUP ULTRAMAX	5	SL	12	OZ A/A	EP-1L	A	88.3 a	92.7 a	40 bc
9	ROUNDUP ULTRAMAX	5	SL	12	OZ A/A	EP-3-4L	C			
10	ROUNDUP ULTRAMAX	5	SL	16	OZ A/A	EP-1L	A	91 a	91.7 a	40 bc
10	ROUNDUP ULTRAMAX	5	SL	16	OZ A/A	EP-3-4L	C			
	LSD (P=.05)							9.11	26.83	16.06
	Standard Deviation							5.31	15.64	9.36
	CV							6.5	20.96	21.85

Means followed by same letter do not significantly differ (P=.05, LSD)

APPLICATION DESCRIPTION			
	A	**B**	**C**
Application Date:	6/29/01	7/2/01	7/18/01
Time of Day:	1:30 PM	11:00 AM	6:00 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	EP 1LEAF	EP 2-3 LF	MIDPOST
Applic. Placement:	BROADCAST	BROADCAST	DIRECTED
Air Temp., Unit:	99 F	90 F	81 F
% Relative Humidity:	25	47	55
Wind Velocity, Unit:	11 MPH	5 MPH	2.5 MPH
Soil Temp., Unit:	102 F	103 F	80 F
Soil Moisture:	MARGINAL	DRY	ADEQUATE
% Cloud Cover:	30	15	0

WEED SIZE AT APPLICATION			
	A	**B**	**C**
	1-3 INCH	1-4 INCH	2-4 INCH

APPLICATION EQUIPMENT			
	A	**B**	**C**
Appl. Equipment:	JD HI-BOY	JD HI-BOY	JD HI-BOY
Operating Pressure:	30 PSI	30 PSI	26 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015 VS	80015 VS	8001EVS
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	2	2	2
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	10 GPA
Propellant:	CO2	CO2	CO2

STAPLE WEED CONTROL SYSTEMS

DUPONT

TRIAL ID:	DUPWC0102	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**PLANTING DATE:**	MAY 17th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:
This trials objective was to evaluate both preemergence and postemergence weed control systems in either conventional or Roundup Ready cotton systems. Preemergence applications of Staple alone or in combination with Caparol were very effective at controlling pigweed season long. Likewise, all postemergence applications including Staple controlled pigweed season-long.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PIGWEED CONTROL PERCENT 6/29/01	PIGWEED CONTROL PERCENT 7/16/01	PIGWEED CONTROL PERCENT 8/1/01	PIGWEED CONTROL PERCENT 9/5/01
1	UNTREATED CHECK							0 b	0 b	0 b	0 c
2	STAPLE	85	WP	0.9	OZ/A	PRE	A	96.7 a	100 a	100 a	96 a
3	STAPLE	85	WP	0.6	OZ/A	PRE	A	98.3 a	100 a	100 a	96 a
3	CAPAROL	4	L	3.2	PT/A	PRE	A				
4	STAPLE	85	WP	0.6	OZ/A	EP	B	0 b	100 a	100 a	97.7 a
4	ROUNDUP ULTRAMAX	5	SL	20	OZ/A	EP	B				
4	NIS		L	0.25	% V/V	EP	B				
4	AMMONIUM SULFATE	100	SG	2	LB/A	EP	B				
5	STAPLE	85	WP	1.2	OZ/A	EP	B	0 b	100 a	100 a	96 a
5	ROUNDUP ULTRAMAX	5	SL	26	OZ/A	EP	B				
5	NIS		L	0.25	% V/V	EP	B				
5	AMMONIUM SULFATE	100	SG	2	LB/A	EP	B				
6	STAPLE	85	WP	0.6	OZ/A	EP	B	0 b	100 a	100 a	96 a
6	ROUNDUP ULTRAMAX	5	SL	20	OZ/A	EP	B				
6	AMMONIUM SULFATE	100	SG	2	LB/A	EP	B				
7	ROUNDUP ULTRAMAX	5	SL	26	OZ/A	EP	B	0 b	100 a	100 a	70 b
7	AMMONIUM SULFATE	100	SG	2	LB/A	EP	B				
LSD (P=.05)								4.04	0	0	4.51
Standard Deviation								2.27	0	0	2.54
CV								8.15	0	0	3.22

Means followed by same letter do not significantly differ (P=.05, LSD)

STAPLE WEED CONTROL SYSTEMS
DUPONT

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	5/17/01	6/29/01
Time of Day:	11:00 AM	1:00 PM
Application Method:	SPRAY	SPRAY
Application Timing:	PREEMERGE	EP 3-4 LF
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	81 F	99 F
% Relative Humidity:	75	30
Wind Velocity, Unit:	9.2 MPH	7 MPH
Soil Temp., Unit:		100 F
Soil Moisture:	GOOD	MARGINAL
% Cloud Cover:	70	35

WEED SIZE AT APPLICATION		
	A	**B**
	NA	1-3 INCH

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD HI-BOY	JD HI-BOY
Operating Pressure:	28 PSI	28 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015 VS	80015 VS
Nozzle Spacing, Unit:	20 IN	20 IN
Nozzles/Row:	2	2
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA
Propellant:	CO2	CO2

AIM POST-DIRECTED FOR MORNINGGLORY CONTROL

FMC

TRIAL ID:	FMCWC0101	**LOCATION:**	OSUREC
VARIETY:	ST 4892 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The recently registered Aim herbicide was evaluated in this trial for its effectiveness as a post-directed treatment on morningglory. Early-season results indicate that pitted morningglory was controlled the greatest when the standard rate of (0.015 lb a/a = 1/3oz/a) Aim was tankmixed with Roundup Ultramax, Buctril, or Direx compared to Aim alone. Similar control was observed from the higher rate of Aim alone. The greatest late-season control of pitted morningglory was observed when Aim was tankmixed with either Caparol, Cotoran, Direx or Roundup Ultramax.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/30/01	PITTEDMG CONTROL PERCENT 8/8/01	PITTEDMG CONTROL PERCENT 8/30/01
	Rating Data Type							CONTROL	CONTROL	CONTROL
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							7/30/01	8/8/01	8/30/01
	Trt-Eval Interval							11 DA-A	20 DA-A	42 DA-A
1	UNTREATED							0e	0e	0e
2	AIM	40	DF	0.015	LB A/A	PD	A	90.7cd	81d	74.3cd
2	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
3	AIM	2	EC	0.015	LB A/A	PD	A	86.7d	83.7cd	72.3d
3	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
4	AIM	40	DF	0.024	LB A/A	PD	A	95.3abc	83cd	77.7bcd
4	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
5	AIM	40	DF	0.015	LB A/A	PD	A	92.7bcd	89.3ab	86.3ab
5	COTORAN	4	L	0.75	LB A/A	PD	A			
5	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
6	AIM	40	DF	0.015	LB A/A	PD	A	96.7abc	82cd	70d
6	BUCTRIL	4	EC	0.375	LB A/A	PD	A			
6	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
7	AIM	40	DF	0.008	LB A/A	PD	A	98ab	85.7bcd	84abc
7	ROUNDUP ULTRAMAX	5	SL	20	OZ/A	PD	A			
7	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
8	AIM	40	DF	0.015	LB A/A	PD	A	99ab	86.3bc	83.3abc
8	ROUNDUP ULTRAMAX	5	SL	20	OZ/A	PD	A			
8	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
9	AIM	40	DF	0.015	LB A/A	PD	A	87.7d	81d	76.7bcd
9	STAPLE	85	WP	0.0625	LB A/A	PD	A			
9	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			

Means followed by same letter do not significantly differ (P=.05, LSD)

AIM POST-DIRECTED FOR MORNINGGLORY CONTROL

FMC

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/30/01 11 DA-A	PITTEDMG CONTROL PERCENT 8/8/01 20 DA-A	PITTEDMG CONTROL PERCENT 8/30/01 42 DA-A
10	AIM	40	DF	0.015	LB A/A	PD	A	90 cd	83 cd	77.7 bcd
10	MSMA	6	EC	2	LB A/A	PD	A			
10	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
11	AIM	40	DF	0.015	LB A/A	PD	A	100 a	92 a	92.7 a
11	DIREX	4	L	2	LB A/A	PD	A			
11	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
12	AIM	40	DF	0.015	LB A/A	PD	A	99.3 ab	93 a	89 a
12	CAPAROL	4	L	2	LB A/A	PD	A			
12	CROP OIL CONCENTRATE		L	1	% V/V	PD	A			
LSD (P=.05)								7.22	4.7	10.74
Standard Deviation								4.26	2.78	6.34
CV								4.94	3.54	8.61

Means followed by same letter do not significantly differ (P=.05, LSD)

APPLICATION DESCRIPTION	
	A
Application Date:	7/19/01
Time of Day:	3:30 PM
Application Timing:	LATE POST
Applic. Placement:	DIRECTED
Air Temp., Unit:	103 F
% Relative Humidity:	15
Wind Velocity, Unit:	1.7 MPH
Soil Temp., Unit:	105 F
Soil Moisture:	GOOD
% Cloud Cover:	40

WEED STAGE AT EACH APPLICATION	
	A
	PITTEDMG
	1-4 INCH

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	REDBALL
Operating Pressure:	25 PSI
Nozzle Type:	TJFLATFAN
Nozzle Size:	8003/001
Nozzles/Row:	3
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GPA
Propellant:	CO2

TANKMIXING DIREX & LINEX FOR MORNINGGLORY CONTROL

GRIFFIN

TRIAL ID:	GRIWC0101	**LOCATION:**	OSUREC
VARIETY:	PM 1218 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

Tankmix combinations of Direx and Linex were evaluated for post-directed morningglory control in cotton. All treatments provided excellent mid-season pitted morningglory control except Linex plus MSMA and 1 pt/a of Bladex plus MSMA. Bladex plus MSMA has historically been the treatment of choice for post-directed morningglory control in cotton, however it is no longer registered for use. Approximately 5 weeks after application, Linex plus Direx or any treatment including 1.5 pt/a of Direx controlled pitted morningglory the greatest.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/30/01 10 DA-A	PITTEDMG CONTROL PERCENT 8/9/01 20 DA-A	PITTEDMG CONTROL PERCENT 8/30/01 41 DA-A
1	UNTREATED CHECK							0 d	0 e	0 f
2	BLADEX	4	F	1	PT/A	PD15"COT	A	76.7 bc	66.7 cd	58.3 de
2	MSMA	6	EC	1.3	PT/A	PD15"COT	A			
3	LINEX	4	L	1	PT/A	PD15"COT	A	63.3 c	53.3 d	51.7 e
3	MSMA	6	EC	1.3	PT/A	PD15"COT	A			
4	BLADEX	4	F	1	PT/A	PD15"COT	A	91.7 a	87.7 ab	81 abc
4	DIREX	4	L	1	PT/A	PD15"COT	A			
4	NIS	100	L	0.5	% V/V	PD15"COT	A			
5	LINEX	4	L	1	PT/A	PD15"COT	A	90 ab	84.3 abc	81 abc
5	DIREX	4	L	1	PT/A	PD15"COT	A			
5	NIS		L	0.5	% V/V	PD15"COT	A			
6	LINEX	4	L	1	PT/A	PD15"COT	A	88.3 ab	80.3 abc	83.3 ab
6	DIREX	4	L	1	PT/A	PD15"COT	A			
6	CROP OIL		L	1	PT/A	PD15"COT	A			
7	LINEX	4	L	1.5	PT/A	PD15"COT	A	89.3 ab	91.3 a	85.7 a
7	DIREX	4	L	1	PT/A	PD15"COT	A			
7	CROP OIL CONCENTRATE		L	1	PT/A	PD15"COT	A			
8	LINEX	4	L	1	PT/A	PD15"COT	A	95.3 a	86 ab	85 a
8	DIREX	4	L	1	PT/A	PD15"COT	A			
8	AIM	40	DF	0.3	OZ/A	PD15"COT	A			
8	NIS		L	0.5	% V/V	PD15"COT	A			

Means followed by same letter do not significantly differ (P=.05, LSD)

TANKMIXING DIREX & LINEX FOR MORNINGGLORY CONTROL

GRIFFIN

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/30/01 10 DA-A	PITTEDMG CONTROL PERCENT 8/9/01 20 DA-A	PITTEDMG CONTROL PERCENT 8/30/01 41 DA-A
9	LINEX	4	L	1.5	PT/A	PD15"COT	A	82.7 ab	70 bcd	68.3 bcd
9	CROP OIL		L	1	PT/A	PD15"COT	A			
10	DIREX	4	L	1.5	PT/A	PD15"COT	A	82.7 ab	82 abc	78.3 abc
10	CROP OIL		L	0.5	% V/V	PD15"COT	A			
11	GLYPHOSATE ORIGINAL	3	AS	2	PT/A	PD15"COT	A	91.3 a	89.3 a	80 abc
11	DIREX	4	L	1.5	PT/A	PD15"COT	A			
11	NIS		L	0.5	% V/V	PD15"COT	A			
12	GLYPHOSATE ORIGINAL	3	AS	2	PT/A	PD15"COT	A	86.7 ab	83.7 abc	73.3 a-d
12	LINEX	4	L	1	PT/A	PD15"COT	A			
12	NIS		L	0.5	% V/V	PD15"COT	A			
13	GLYPHOSATE ORIGINAL	3	AS	2	PT/A	PD15"COT	A	83.3 ab	82.7 abc	66.7 cde
13	NIS		L	0.5	% V/V	PD15"COT	A			
LSD (P=.05)								13.39	17.84	16.1
Standard Deviation								7.94	10.59	9.55
CV								10.11	14.37	13.91

Means followed by same letter do not significantly differ (P=.05, LSD)

TANKMIXING DIREX & LINEX FOR MORNINGGLORY CONTROL

GRIFFIN

APPLICATION DESCRIPTION	
	A
Application Date:	7/20/01
Time of Day:	10:00 AM
Application Method:	SPRAY
Application Timing:	LATEPOST
Applic. Placement:	DIRECTED
Air Temp., Unit:	90 F
% Relative Humidity:	49
Wind Velocity, Unit:	5.6 MPH
Soil Temp., Unit:	93 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	5

WEED STAGE AT EACH APPLICATION	
	A
	PITTEDMG
	2-4 INCH

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	REDBALL
Operating Pressure:	25 PSI
Nozzle Type:	TJFLATFAN
Nozzle Size:	8001/003
Nozzles/Row:	3
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GPA
Propellant:	CO2

DIREX IN A ROUNDUP READY SYSTEM FOR MORNINGGLORY CONTROL

MONSANTO

TRIAL ID:	MONWC0101	**LOCATION:**	OSUREC
VARIETY:	ST 4892 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to determine the benefit of Direx applied post-directed in a Roundup Ready cotton system. Various Roundup Ultramax (RU) weed control programs were initiated containing early-post over-the-top applications (0.75 lb ae/a = 26 oz/a) at 1-2 leaf or 3-4 leaf cotton stages. These treatments were then followed with post-directed applications of RU with or without two different rates (0.5 and 0.75 lb a/a, equivalent to 1 and 1.5 pt/a) of Direx on 2-3 inch, 4-6 inch, or 8-10 inch morningglory. Dense early-season populations of pitted morningglory were controlled greatest when RU was applied at 1-2 leaf cotton stage. At the end of July, following one early-post (3-4 leaf) RU application with RU plus Direx post-directed to 2-3 inch morningglory, improved control significantly compared to RU alone. However, there were no differences in control when two early-post (1-2L & 3-4L) applications were made prior to similar post-directed treatments to larger morningglory. In August, treatments including Direx post-directed on 6-8 inch weeds or at layby controlled pitted morningglory greater than Roundup Ultramax alone.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/10/01	PITTEDMG CONTROL PERCENT 7/24/01	PITTEDMG CONTROL PERCENT 8/20/01
1	UNTREATED CHECK							0c	0e	0f
2	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	86b	75bcd	40e
2	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	82b	95.3a	65cd
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
3	DIREX	4	L	0.5	LB A/A		C			
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	86b	97a	71.7bcd
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
4	DIREX	4	L	0.5	LB A/A		C			
5	ROUNDUP ULTRAMAX	3.7	L	0.75	LB AE/A		A	96.3a	92ab	60d
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B			
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
6	ROUNDUP ULTRAMAX	3.7	L	0.75	LB AE/A		A	98a	98.3a	72bcd
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B			
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
6	DIREX	4	L	0.5	LB A/A		C			

Means followed by same letter do not significantly differ (P=.05, LSD)

DIREX IN A ROUNDUP READY SYSTEM FOR MORNINGGLORY CONTROL

MONSANTO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/10/01	PITTEDMG CONTROL PERCENT 7/24/01	PITTEDMG CONTROL PERCENT 8/20/01
	Weed							PITTEDMG	PITTEDMG	PITTEDMG
	Rating Data Type							CONTROL	CONTROL	CONTROL
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							7/10/01	7/24/01	8/20/01
7	ROUNDUP ULTRAMAX	3.7	L	0.75	LB AE/A		A	96 a	97.7 a	70 bcd
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B			
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
7	DIREX	4	L	0.75	LB A/A		C			
8	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	83.3 b	60 cd	65 cd
8	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		D			
9	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	82.7 b	63.3 cd	66.7 cd
9	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		D			
9	DIREX	4	L	0.5	LB A/A		D			
10	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	81.5 b	56.7 d	77.7 abc
10	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		D			
10	DIREX	4	L	0.75	LB A/A		D			
11	ROUNDUP ULTRAMAX	3.7	L	0.75	LB AE/A		A	95.7 a	75 bcd	67.7 cd
11	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B			
11	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		D			
12	ROUNDUP ULTRAMAX	3.7	L	0.75	LB AE/A		A	96.3 a	73.3 bcd	77.7 abc
12	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B			
12	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		D			
12	DIREX	4	L	0.5	LB A/A		D			
13	ROUNDUP ULTRAMAX	3.7	L	0.75	LB AE/A		A	94.3 a	71.7 cd	77.7 abc
13	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B			
13	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		D			
13	DIREX	4	L	0.75	LB A/A		D			
14	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	83.3 b	56.7 d	88.3 a
14	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		E			
14	DIREX	4	L	0.75	LB A/A		E			
15	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		B	83.3 b	80 abc	85 ab
15	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		C			
15	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A		F			
15	DIREX	4	L	0.75	LB A/A		F			
	LSD (P=.05)							5.36	20.11	15.53
	Standard Deviation							3.2	12.03	9.29
	CV							3.85	16.52	14.15

Means followed by same letter do not significantly differ (P=.05, LSD)

DIREX IN A ROUNDUP READY SYSTEM FOR MORNINGGLORY CONTROL

MONSANTO

APPLICATION DESCRIPTION						
	A	**B**	**C**	**D**	**E**	**F**
Application Date:	6/26/01	7/2/01	7/18/01	8/1/01	8/8/01	8/8/01
Time of Day:	2:00 PM	1:00 PM	9:20 AM	8:45 AM	10:15 AM	10:15 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	EPCOT-2LF	EP 3-4 LF	2-3"WEEDS	4-6"WEEDS	8-10/LAY	8-10/LAY
Applic. Placement:	BROADCAST	BROADCAST	DIRECTED	DIRECED	DIRECTED	DIRECTED
Air Temp., Unit:	91 F	88 F	87 F	88 F	88.5 F	88.5 F
% Relative Humidity:	35	43	52	43	47	47
Wind Velocity, Unit:	10 MPH	5.5 MPH	3.9 MPH	8 MPH	3 MPH	3 MPH
Soil Moisture:	ADEQUATE	DRY	ADEQUATE	ADEQUATE	ADEQUATE	ADEQUATE
% Cloud Cover:	25	30	0	0	0	0

WEED STAGE AT EACH APPLICATION						
	A	**B**	**C**	**D**	**E**	**F**
	PITTEDMG 1-3"	PITTED MG 1-2 INCH	PITTED MG 2-3 INCH	PITTED MG 4-6 INCH	PITTED MG 1-8 INCH	PITTED MG 1-4 INCH

APPLICATION EQUIPMENT						
	A	**B**	**C**	**D**	**E**	**F**
Appl. Equipment:	JD HI-BOY	JD HI-BOY	REDBALL	REDBALL	REDBALL	REDBALL
Operating Pressure:	30 PSI	30 PSI	25 PSI	25 PSI	25 PSI	25 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015 VS	80015 VS	8001/8003	8001/8003	8001/8003	8001/8003
Nozzle Spacing, Unit:	20 IN	20 IN	13 IN	13 IN	13 IN	13 IN
Nozzles/Row:	2	2	3	3	3	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	15 GPA	15 GPA	15 GPA	15 GPA
Propellant:	CO2	CO2	CO2	CO2	CO2	CO2

POST-DIRECTED TANKMIX PARTNERS FOR ROUNDUP ULTRAMAX

MONSANTO

TRIAL ID:	MONWC0102	**LOCATION:**	OSUREC
VARIETY:	ST 4892 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to evaluate the effectiveness of various post-directed Roundup Ultramax tankmix partners for morningglory control in cotton. Prior to the post-directed stage, pitted morningglory was effectively controlled with Roundup Ultramax applied over-the-top. Approximately ten days after the post-directed applications, pitted morningglory was effectively controlled when Direx, Aim, Amplify, Valor, Brawn, or Strongarm was combined with Roundup Ultramax. This control was similar to the standard used for comparison (Caparol plus MSMA). One month later, Amplify, Valor, and Strongarm were the most effective Roundup Ultramax tankmix partners for controlling pitted morningglory with post-directed applications.

Weed								PITTEDMG	PITTEDMG	PITTEDMG
Rating Data Type								CONTROL	CONTROL	CONTROL
Rating Unit								PERCENT	PERCENT	PERCENT
Rating Date								7/10/01	7/30/01	8/20/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	UNTREATED CHECK							0 b	0 h	0 h
2	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	86 a-d	64.3 cde
2	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
2	DIREX	4	L	0.5	LB A/A	PD	C			
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	89 ab	79.3 abc
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
3	DIREX	4	L	0.75	LB A/A	PD	C			
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	93.3 a	87 a
4	CAPAROL	4	L	1.6	PT/A	PD	C			
4	MSMA	6	SC	2.7	PT/A	PD	C			
4	NIS		L	0.25	% V/V	PD	C			
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	87.7 abc	65 cde
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
5	AIM	40	DF	0.004	LB A/A	PD	C			
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	75 fg	56.7 ef
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
6	LENEX	4	L	0.75	LB A/A	PD	C			
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	83.7 b-f	64.7 cde
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
7	AMPLIFY	84	WG	0.016	LB A/A	PD	C			

Means followed by same letter do not significantly differ (P=.05, LSD)

POST-DIRECTED TANKMIX PARTNERS FOR ROUNDUP ULTRAMAX

MONSANTO

Weed							PITTEDMG	PITTEDMG	PITTEDMG
Rating Data Type							CONTROL	CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT	PERCENT
Rating Date							7/10/01	7/30/01	8/20/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
8	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	87.7 abc	82.7 ab
8	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
8	AMPLIFY	84	WG	0.032	LB A/A	PD	C			
9	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	77.7 def	66.7 b-e
9	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
9	MAVERICK	75	DF	0.016	LB A/A	PD	C			
10	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	82.7 b-f	71 a-e
10	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
10	PERMIT	75	DF	0.048	LB A/A	PD	C			
11	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	89.3 ab	76.7 a-d
11	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
11	VALOR	50	WP	0.063	LB A/A	PD	C			
12	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	93 a	83 a
12	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
12	VALOR	50	WP	0.094	LB A/A	PD	C			
13	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	80 c-f	55 ef
13	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
13	CGA 362622	75	WG	0.004	LB A/A	PD	C			
14	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	90 ab	62 de
14	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
14	BRAWN (CGA 362622)	75	WG	0.007	LB A/A	PD	C			
15	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	85 a-e	82.7 ab
15	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
15	STRONGARM	84	WG	0.025	LB A/A	PD	C			

Means followed by same letter do not significantly differ (P=.05, LSD)

POST-DIRECTED TANKMIX PARTNERS FOR ROUNDUP ULTRAMAX

MONSANTO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/10/01	PITTEDMG CONTROL PERCENT 7/30/01	PITTEDMG CONTROL PERCENT 8/20/01
16	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	68.3 g	38.3 g
16	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
17	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 2 LF	A	95 a	81.7 b-f	60 ef
17	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B			
17	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
18	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 4-5LF	B	95 a	76.7 efg	45 fg
18	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD	C			
18	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	LAYBY	D			
LSD (P=.05)								0	8.99	16.25
Standard Deviation								0	5.39	9.75
CV								0	6.8	15.39

Means followed by same letter do not significantly differ (P=.05, LSD)

APPLICATION DESCRIPTION	A	B	C	D
Application Date:	6/26/01	7/2/01	7/20/01	8/8/01
Time of Day:	2:00 PM	1:00 PM	2:30 PM	10:15 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	EP 2LF	EP 4 LF	MP 8 LF	LAYBY
Applic. Placement:	BROADCAST	BROADCAST	DIRECTED	DIRECTED
Air Temp., Unit:	91 F	88 F	103 F	88.5 F
% Relative Humidity:	35	43	25	47
Wind Velocity, Unit:	10 MPH	5.5 MPH	4 MPH	3 MPH
Soil Temp., Unit:	89 F	91 F	101 F	
Soil Moisture:	ADEQUATE	DRY	ADEQUATE	ADEQUATE
% Cloud Cover:	25	30	40	0
WEED STAGE AT EACH APPLICATION	**A**	**B**	**C**	**D**
	PITTEDMG 1-3 INCH	PITTEDMG 1-3 INCH	PITTED MG 2-3 INCH	PITTED MG 2-4 INCH
APPLICATION EQUIPMENT	**A**	**B**	**C**	**D**
Appl. Equipment:	JD HI BOY	JD HI BOY	REDBALL	REDBALL
Operating Pressure:	25 PSI	25 PSI	25 PSI	25 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015	80015	8001/003	8001/003
Nozzles/Row:	2	2	3	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	15 GPA	15 GPA
Propellant:	CO2	CO2	CO2	CO2

MAVERICK POST-DIRECTED IN A ROUNDUP READY SYSTEM FOR MORNINGGLORY CONTROL

MONSANTO

TRIAL ID:	MONWC0103	**LOCATION:**	OSUREC
VARIETY:	ST 4892 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to determine the benefit of tankmixing Maverick with post-directed applications of Roundup Ultramax in comparison to Roundup Ultramax plus Direx for morningglory control in cotton. Seven days after treatment, no differences were observed between Roundup Ultramax alone and tankmixes with either Direx or Maverick. Two weeks later, Roundup Ultramax tankmixes with 1.5 pt/a of Direx controlled pitted morningglory better than other treatments. However, by August, the tankmixes including the higher rate of Maverick were equally as effective.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 7/10/01	PITTEDMG CONTROL PERCENT 7/24/01	COTTON INJURY PERCENT 7/24/01
1	UNTREATED CHECK							0 c	0 d	0 a
2	CAPAROL	4	L	3.2	PT/A	PRE	A	68.3 b	33.3 c	0 a
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	83.3 a	85 b	0 a
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C			
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	83.3 a	87.7 b	0 a
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C			
4	DIREX	4	L	0.5	LB A/A	PD 8-10L	C			
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	85 a	95.7 a	0 a
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C			
5	DIREX	4	L	0.75	LB A/A	PD 8-10L	C			
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	85 a	83.7 b	0 a
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C			
6	MAVERICK	75	DF	0.016	LB A/A	PD 8-10L	C			
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	85 a	85.7 b	0 a
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C			
7	MAVERICK	75	DF	0.032	LB A/A	PD 8-10L	C			
LSD (P=.05)								3.36	5.23	0
Standard Deviation								1.89	2.94	0
CV								2.7	4.37	0

Means followed by same letter do not significantly differ (P=.05, LSD)

MAVERICK POST-DIRECTED IN A ROUNDUP READY SYSTEM FOR MORNINGGLORY CONTROL

MONSANTO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PITTEDMG CONTROL PERCENT 8/20/01	COTTON INJURY PERCENT 8/20/01
	Weed							PITTEDMG	
	Crop								COTTON
	Rating Data Type							CONTROL	INJURY
	Rating Unit							PERCENT	PERCENT
	Rating Date							8/20/01	8/20/01
1	UNTREATED CHECK							0 d	0 a
2	CAPAROL	4	L	3.2	PT/A	PRE	A	48.3 bc	0 a
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	36.7 c	0 a
3	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C		
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	73.3 a	0 a
4	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C		
4	DIREX	4	L	0.5	LB A/A	PD 8-10L	C		
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	83.3 a	0 a
5	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C		
5	DIREX	4	L	0.75	LB A/A	PD 8-10L	C		
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	56 b	0 a
6	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C		
6	MAVERICK	75	DF	0.016	LB A/A	PD 8-10L	C		
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	EP 3-4LF	B	71 a	0 a
7	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	PD 8-10L	C		
7	MAVERICK	75	DF	0.032	LB A/A	PD 8-10L	C		
	LSD (P=.05)							12.39	0
	Standard Deviation							6.97	0
	CV							13.23	0

Means followed by same letter do not significantly differ (P=.05, LSD)

MAVERICK POST-DIRECTED IN A ROUNDUP READY SYSTEM FOR MORNINGGLORY CONTROL

MONSANTO

APPLICATION DESCRIPTION			
	A	**B**	**C**
Application Date:	6/6/01	7/2/01	7/18/01
Time of Day:	4:00 PM	11:30 AM	7:50 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	3-4 LEAF	8 LEAF
Applic. Placement:	BROADCAST	BROADCAST	DIRECTED
Air Temp., Unit:	95 F	90 F	85 F
% Relative Humidity:	25	44	53
Wind Velocity, Unit:	10 MPH	4.2 MPH	3 MPH
Soil Temp., Unit:	93 F	88 F	82 F
Soil Moisture:	DRY	DRY	ADEQUATE
% Cloud Cover:	0	15	0

WEED STAGE AT EACH APPLICATION			
	A	**B**	**C**
		PITTED MG	PITTED MG
		1-3 INCH	1-4 INCH

APPLICATION EQUIPMENT			
	A	**B**	**C**
Appl. Equipment:	JD HI-BOY	JD HI-BOY	REDBALL
Operating Pressure:	28 PSI	28 PSI	25 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015 VS	80015 VS	8001/003
Nozzle Spacing, Unit:	20 IN	20 IN	
Nozzles/Row:	2	2	3
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	15 GPA
Propellant:	CO2	CO2	CO2

ENHANCING THE ACTIVITY PROWL WITH GROUNDED

HELENA

TRIAL ID:	HELWC0101	**LOCATION:**	WOSC
VARIETY:	SG 125 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

No significant weed control differences were observed between treatments of Prowl with and without the Grounded deposition agent. However, there was a noticeable difference in the amount of visible fines and drifting of the spray solution.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PIGWEED CONTROL PERCENT 5/11/01	PIGWEED CONTROL PERCENT 7/11/01
	Weed Code							PIGWEED	PIGWEED
	Rating Data Type							CONTROL	CONTROL
	Rating Unit							PERCENT	PERCENT
	Rating Date							5/11/01	7/11/01
	Trt-Eval Interval							36 DA-A	97 DA-A
1	PROWL	3.3	EC	2.4	PT/A	PPI	A	98.3 a	85 a
2	PROWL	3.3	EC	2.4	PT/A	PPI	A	98.3 a	85 a
2	GROUNDED		L	1	QT/A	PPI	A		
3	UNTREATED CHECK							0 b	0 b
	LSD (P=.05)							1.19	0
	Standard Deviation							0.53	0
	CV							0.8	0

Means followed by same letter do not significantly differ (P=.05, LSD)

ENHANCING THE ACTIVITY PROWL WITH GROUNDED

HELENA

APPLICATION DESCRIPTION	
	A
Application Date:	4/5/01
Time of Day:	5:30 PM
Application Method:	SPRAY
Application Timing:	PPI
Applic. Placement:	BROADCAST
Air Temp., Unit:	79 F
% Relative Humidity:	69
Wind Velocity, Unit:	11 MPH
Soil Moisture:	ADEQUATE
% Cloud Cover:	100

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	BICYCLE
Operating Pressure:	27 PSI
Nozzle Type:	TJFLATFAN
Nozzle Size:	8001 VS
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	2.5 MPH
Incorporation Equip.:	PM FB RC
Hours to Incorp.:	0.2
Incorp. Depth, Unit:	2 IN
Carrier:	WATER
Spray Volume, Unit:	10 GPA
Propellant:	CO2

Treatment Application Comment

TREATMENTS INCORPORATED WITH PREPMASTER FOLLOWED BY ROLLING CULTIVATOR

ENHANCING THE ACTIVITY OF TRIFLURALIN WITH GROUNDED

HELENA

TRIAL ID:	HELWC0102	**LOCATION:**	WOSC
VARIETY:	SG 125 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

No significant weed control differences were observed between treatments of Prowl with and without the Grounded deposition agent. However, there was a noticeable difference in the amount of visible fines and drifting of the spray solution.

Weed							PIGWEED
Rating Data Type							CONTROL
Rating Unit							PERCENT
Rating Date							6/8/01
Trt-Eval Interval							64 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	TRIFLURALIN	4	L	1	QT/A	PPI	A	73.3a
2	TRIFLURALIN	4	L	1	QT/A	PPI	A	76.7a
2	GROUNDED		L	1	QT/A	PPI	A	
3	UNTREATED							0b
LSD (P=.05)								14.34
Standard Deviation								4.08
CV								5.44
Means followed by same letter do not significantly differ (P=.05, LSD)								

ENHANCING THE ACTIVITY OF TRIFLURALIN WITH GROUNDED

HELENA

APPLICATION DESCRIPTION	
	A
Application Date:	4/5/01
Time of Day:	11:00 AM
Application Method:	SPRAY
Application Timing:	PPI
Applic. Placement:	BROADCAST
Air Temp., Unit:	74 F
% Relative Humidity:	75
Wind Velocity, Unit:	16 MPH
Soil Moisture:	ADEQUATE
% Cloud Cover:	90

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD 6500
Operating Pressure:	40 PSI
Nozzle Type:	HARDI FF
Nozzle Size:	4110-18
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Boom Length, Unit:	60 FT
Ground Speed, Unit:	7 MPH
Incorporation Equip.:	RC*
Hours to Incorp.:	1
Incorp. Depth, Unit:	2 IN
Carrier:	WATER
Spray Volume, Unit:	10 GPA

Treatment Application Comment

TREATMENTS INCORPORATED WITH ROLLING CULTIVATOR

MORNINGGLORY SCREEN

OSU

TRIAL ID:	OSUWC0103	**LOCATION:**	OSUREC
VARIETY:	ST 4892 B/R	**PLANTING DATE:**	JUNE 4th
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The purpose of this trial was to compare various treatments for control of larger-than-optimum size morningglory. Typically, morningglory should be sprayed in the 1-3 inch height range. In this trial post-directed applications were made to approximately 6 inch morningglory. One week after application, Buctril, Caparol plus MSMA, Linex plus Direx, and Aim plus Direx controlled pitted morningglory better than Roundup Ultramax alone, Staple, Harvade plus MSMA, Valor plus MSMA, or Bladex plus MSMA. However, the Valor, Harvade, and Bladex treatments still effectively controlled pitted morningglory (83-87%). Three weeks later, Valor plus MSMA, Linex plus Direx, and Aim plus Direx controlled the morningglory greater than other treatments. However, once again all treatments provided $\geq$ 82% control.

Weed							PITTEDMG	PITTEDMG
Crop								
Rating Data Type							CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT
Rating Date							8/9/01	8/30/01
Trt-Eval Interval							8 DA-A	29 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	ROUNDUP ULTRAMAX	3.7	SL	0.75	LB AE/A	6" WDS	A	76.7 d	84.7 bc
1	AMS	100	SG	17	LB/100 GAL	6" WDS	A		
2	STAPLE	85	WP	1.5	OZ/A	6" WDS	A	68.3 e	84.3 c
2	CROP OIL CONCENTRATE	100	L	1.25	% V/V	6" WDS	A		
3	BUCTRIL	4	EC	0.75	LB A/A	6" WDS	A	93.3 ab	84.3 c
3	CROP OIL CONCENTRATE	100	L	1.25	% V/V	6" WDS	A		
4	HARVADE	5	F	8	OZ/A	6" WDS	A	83.3 cd	81.7 c
4	MSMA	6	L	2.7	PT/A	6" WDS	A		
4	CROP OIL CONCENTRATE	100	L	1.25	% V/V	6" WDS	A		
5	CAPAROL	4	L	2.4	PT/A	6" WDS	A	89.3 abc	83 c
5	MSMA	6	L	1	QT/A	6" WDS	A		
6	VALOR	50	WG	0.063	LB A/A	6" WDS	A	87.7 bc	92.3 ab
6	MSMA	6	L	2.7	PT/A	6" WDS	A		
7	LINEX	4	L	1	PT/A	6" WDS	A	95.7 a	93.7 a
7	DIREX	4	L	1	PT/A	6" WDS	A		
7	CROP OIL CONCENTRATE		L	1.25	% V/V	6" WDS	A		

Means followed by same letter do not significantly differ (P=.05, LSD)

MORNINGGLORY SCREEN

OSU

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
Weed								PITTEDMG	PITTEDMG
Crop									
Rating Data Type								CONTROL	CONTROL
Rating Unit								PERCENT	PERCENT
Rating Date								8/9/01	8/30/01
Trt-Eval Interval								8 DA-A	29 DA-A
8	AIM	40	WG	0.3	OZ/A	6" WDS	A	94.7 a	94.7 a
8	DIREX	4	L	1	QT/A	6" WDS	A		
8	CROP OIL CONCENTRATE		L	1.25	% V/V	6" WDS	A		
9	BLADEX	4	L	1	QT/A	6" WDS	A	87.7 bc	85.3 bc
9	MSMA	6	EC	2.7	PT/A	6" WDS	A		
10	UNTREATED CHECK							0 f	0 d
LSD (P=.05)								6.71	7.69
Standard Deviation								3.91	4.48
CV								5.03	5.72

Means followed by same letter do not significantly differ (P=.05, LSD)

APPLICATION DESCRIPTION	
	A
Application Date:	8/1/01
Time of Day:	10:15 AM
Application Method:	SPRAY
Application Timing:	LAYBY
Applic. Placement:	DIRECTED
Air Temp., Unit:	88.4 F
% Relative Humidity:	41
Wind Velocity, Unit:	3 MPH
Soil Temp., Unit:	95 F
Soil Moisture:	ADEQUAATE
% Cloud Cover:	0

WEED STAGE AT EACH APPLICATION	
	A
	PITTEDMG
	6 INCH

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD5420-RB
Operating Pressure:	25 PSI
Nozzle Type:	TJFLATFAN
Nozzle Size:	8001/8003
Nozzles/Row:	3
Ground Speed, Unit:	4 MPH
Spray Volume, Unit:	15 GPA
Propellant:	CO2

TOUCHDOWN IQ IN A NO-TILL ROUNDUP READY COTTON SYSTEM

SYNGENTA

TRIAL ID:	SYNWC0101	**LOCATION:**	ABERNATHY FARM
VARIETY:	PM 2326 B/R	**PLANTING DATE:**	MAY 23RD
RATE:	9 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Sandy Loam		

Project Summary:
The objective of this trial was to determine the effectiveness of Touchdown IQ in a No-till Roundup Ready cotton system. Wheat residue was standing at planting and the "at-plant" burndown application times. Three weeks after planting pigweed and carpet weed were controlled approximately 70-80% by applications of Touchdown IQ and Dual Magnum made at planting time. Drought conditions in June and July affected weed growth resulting in the complete death of pigweed, even in plots receiving treatments only at planting. However, carpet weed was most effectively controlled by following the at-plant Touchdown IQ plus Dual Magnum treatment with Touchdown IQ postemergence at the 3-4 leaf cotton stage. No further observations were taken due to drought conditions experienced.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	PIGWEED CONTROL PERCENT 6/12/01	CARPET CONTROL PERCENT 6/12/01	PIGWEED CONTROL PERCENT 6/22/01	CARPET CONTROL PERCENT 6/22/01
1	UNTREATED CHECK							0 b	0 b	0 b	0 d
2	TOUCHDOWN IQ	3	L	1	QT/A	AT PLANT	A	80 a	68.3 a	100 a	85 bc
2	DUAL MAGNUM	7.6	EC	1.3	PT/A	AT PLANT	A				
3	TOUCHDOWN IQ	3	L	1	QT/A	AT PLANT	A	78.3 a	70 a	100 a	100 a
3	DUAL MAGNUM	7.6	EC	1.3	PT/A	AT PLANT	A				
3	TOUCHDOWN IQ	3	L	1	QT/A	EP 3-4LF	B				
4	TOUCHDOWN IQ	3	L	1	QT/A	EP 3-4LF	B	0 b	0 b	100 a	91.7 b
5	TOUCHDOWN IQ	3	L	1	QT/A	AS NEED	C	0 b	0 b	100 a	83.3 c
5	TOUCHDOWN IQ	3	L	1	QT/A	EP 4LF	B				
5	DUAL MAGNUM	7.6	EC	1.3	PT/A	EP 4LF	B				
LSD (P=.05)								2.43	4.38	0	7.39
Standard Deviation								1.29	2.33	0	3.93
CV								4.08	8.41	0	5.45

Means followed by same letter do not significantly differ (P=.05, LSD)

TOUCHDOWN IQ IN A NO-TILL ROUNDUP READY COTTON SYSTEM

SYNGENTA

Weed							CARPET	PIGWEED
Rating Data Type							CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT
Rating Date							7/3/01	7/3/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	UNTREATED CHECK							0 c	0 b
2	TOUCHDOWN IQ	3	L	1	QT/A	AT PLANT	A	66.7 b	100 a
2	DUAL MAGNUM	7.6	EC	1.3	PT/A	AT PLANT	A		
3	TOUCHDOWN IQ	3	L	1	QT/A	AT PLANT	A	100 a	100 a
3	DUAL MAGNUM	7.6	EC	1.3	PT/A	AT PLANT	A		
3	TOUCHDOWN IQ	3	L	1	QT/A	EP 3-4LF	B		
4	TOUCHDOWN IQ	3	L	1	QT/A	EP 3-4LF	B	100 a	100 a
5	TOUCHDOWN IQ	3	L	1	QT/A	AS NEED	C	100 a	100 a
5	TOUCHDOWN IQ	3	L	1	QT/A	EP 4LF	B		
5	DUAL MAGNUM	7.6	EC	1.3	PT/A	EP 4LF	B		
LSD (P=.05)								4.86	0
Standard Deviation								2.58	0
CV								3.52	0
Means followed by same letter do not significantly differ (P=.05, LSD)									

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	5/23/01	6/15/01
Time of Day:	11:15 AM	9:30 AM
Application Method:	SPRAY	SPRAY
Application Timing:	AT PLANT	EP
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	80 F	78 F
% Relative Humidity:	22	52
Wind Velocity, Unit:	10 MPH	6 MPH
Soil Temp., Unit:	91 F	81 F
Soil Moisture:	GOOD	MARGINAL
% Cloud Cover:	0	0

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD HI-BOY	JD HI-BOY
Operating Pressure:	28 PSI	28 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015	80015
Nozzle Spacing, Unit:	20 IN	20 IN
Nozzles/Row:	2	2
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA
Propellant:	CO2	CO2

VALOR POST-DIRECTED FOR MORNINGGLORY CONTROL

VALENT

TRIAL ID:	VALWC0101	**LOCATION:**	OSUREC
VARIETY:	PM 1218 B/R	**PLANTING DATE:**	JUNE 4TH
RATE:	12 lbs/acre	**ROW SPACING:**	40 inches
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The effectiveness of Valor herbicide for post-directed morningglory control was evaluated in comparison to Roundup Ultramax and Direx plus MSMA. Prepackaged liquid formulations (numbered compounds) of Valor and Glyphosate were also evaluated, but their applications were delayed due to product shipment difficulties. In July, Valor plus MSMA with or without Roundup Ultramax controlled pitted morningglory equally as effective as Direx plus MSMA and greater than Roundup Ultramax alone. By the end of August, Valor plus MSMA, and all numbered compounds (prepackaged RU + Valor), and Valor plus Roundup Ultramax, controlled pitted morningglory greater than other treatments.

Weed							PITTEDMG	PITTEDMG	PITTEDMG
Rating Data Type							CONTROL	CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT	PERCENT
Rating Date							7/24/01	8/9/01	8/30/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	UNTREATED CHECK							0 d	0 c	0 f
2	VALOR	50	WDG	0.06	LB A/A	PD12"COT	A	94 a	87 a	68.3 d
2	NIS		L	0.25	% V/V	PD12"COT	A			
3	MSMA	6	L	2	LB A/A	PD12"COT	A	43.3 c	76.7 b	53.3 e
3	NIS		L	0.25	% V/V	PD12"COT	A			
4	VALOR	50	WDG	0.06	LB A/A	PD12"COT	A	95.3 a	93 a	81.7 abc
4	MSMA	6	L	2	LB A/A	PD12"COT	A			
4	NIS		L	0.25	% V/V	PD12"COT	A			
5	ROUNDUP ULTRAMAXMAX	5	SC	1	LB A/A	PD12"COT	A	78.3 b	84.7 ab	70 d
6	VALOR	50	WDG	0.06	LB A/A	PD12"COT	A	95.3 a	89.7 a	79.3 bc
6	ROUNDUP ULTRAMAX	5	SC	1	LB A/A	PD12"COT	A			
7	V-10080	4.25	SC	1.06	LB A/A	PD12"COT	B	0 d	90.3 a	85 ab
7	NIS		L	0.25	% V/V	PD12"COT	B			
8	V-10080	4.25	SC	1.06	LB A/A	PD12"COT	B	0 d	90 a	82 abc
8	NIS		L	0.25	% V/V	PD12"COT	B			
8	AMMONIUM SULFATE	100	SG	2.5	LB/A	PD12"COT	B			
9	V-10080	4.25	SC	1.06	LB A/A	PD12"COT	B	0 d	88 a	90.7 a
9	IMPRESSIVE	100	WG	2.25	LB/A	PD12"COT	B			
10	DIREX	4	L	0.75	LB A/A	PD12"COT	A	95 a	86.7 a	75 cd
10	MSMA	6	L	2	LB A/A	PD12"COT	A			
10	CROP OIL CONCENTRATE		L	1	QT/A	PD12"COT	A			
LSD (P=.05)								7.65	8.55	9.25
Standard Deviation								4.46	4.99	5.39
CV								8.9	6.34	7.87

Means followed by same letter do not significantly differ (P=.05, LSD)

VALOR POST-DIRECTED FOR MORNINGGLORY CONTROL

VALENT

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	7/19/01	8/1/01
Time of Day:	11:OO AM	7:15 AM
Application Method:	SPRAY	SPRAY
Application Timing:	LATEPOST	LATEPOST
Applic. Placement:	DIRECTED	DIRECTED
Air Temp., Unit:	92 F	82 F
% Relative Humidity:	47	47
Wind Velocity, Unit:	5.7 MPH	2.2 MPH
Soil Temp., Unit:	94 F	87 F
Soil Moisture:	ADEQUATE	ADEQUATE
% Cloud Cover:	0	0

WEED STAGE AT EACH APPLICATION		
	A	**B**
	PITTEDMG	PITTEDMG
	2-4 INCH	4-8 INCH

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	REDBALL	REDBALL
Operating Pressure:	25 PSI	25 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
Nozzle Size:	8001/8003	8001/8003
Nozzles/Row:	3	3
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA
Propellant:	CO2	CO2

FINISH/GINSTAR HARVEST AID EVALUATION

AVENTIS

TRIAL ID:	AVEHA0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3

Project Summary:

The objective of this trial was to demonstrate the effectiveness of Finish, Ginstar, and a new formulation of Finish (TADS 14782) in Oklahoma harvest aid programs. At 7 days after treatment, all treatments except those including Dropp defoliated cotton at least 80%. Dropp is typically used in warmer climates (South Texas), and our temperatures during this evaluation were not optimum for the performance of this product. No differences in boll opening were apparent at this observation. However, thirteen days after treatment, plots sprayed with Ginstar alone or Dropp plus Ginstar had less open bolls than all other treatments. The best defoliation observed at this time came from treatments of 1 qt/a of Finish or TADS 14782 alone, or 1pt/a Def plus 1pt/a of Prep. Plots were harvested in order to determine any possible benefits of harvest aid treatment on yield or quality. Higher lint yields were observed from plots which received 1 pt/a of Finish plus 3 oz/a of Ginstar compared to Ginstar alone, Dropp plus Ginstar, or the untreated. Fiber quality analysis indicated that plots treated with TADS 14782 were lower micronaire than untreated plots and plots treated with Dropp plus Def, Def plus Prep, or Ginstar alone. Little or no effective difference was realized from other fiber properties. Overall, averaging micronaire readings from all plots, those that received Finished were 4.71 compared to 4.92 without Finish. This supports differences observed in open boll percentage. This suggests that micronaire was lowered by opening more bolls.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/19/01 7 DA-A	COTTON DEFOL PERCENT 10/19/01 7 DA-A	COTTON DESSIC PERCENT 10/19/01 7 DA-A	COTTON OPENBOLL PERCENT 10/25/01 13 DA-A
1	UNTREATED							65.3 a	16.7 d	0 a	72.7 cde
2	FINISH	6	EC	32	OZ/A	3-4NACB	A	74 a	80 ab	0 a	88 ab
2	INDUCE		L	0.25	% V/V	3-4NACB	A				
3	DROPP	50	WP	0.1	LB/A	3-4NACB	A	72 a	68.3 b	0 a	81.3 a-d
3	DEF 6	6	EC	16	OZ/A	3-4NACB	A				
4	DROPP	50	WP	0.07	LB/A	3-4NACB	A	67.7 a	53.3 c	0 a	67.3 e
4	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A				
4	DYNAMIC		L	2	OZ/A	3-4NACB	A				
5	GINSTAR	1.5	EC	6	OZ/A	3-4NACB	A	66.7 a	80 ab	0 a	69.7 de
6	GINSTAR	1.5	EC	5	OZ/A	3-4NACB	A	68.7 a	81.7 a	0 a	76.7 b-e
6	AMM. SULFATE	100	SG	17	LB/100	3-4NACB	A				
7	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A	75.3 a	86.7 a	0 a	90 ab
7	FINISH	6	L	16	OZ/A	3-4NACB	A				
8	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A	74.7 a	79 ab	0 a	88 ab
8	FINISH	6	L	8	OZ/A	3-4NACB	A				
8	DYNAMIC		L	2	OZ/A	3-4NACB	A				

Means followed by same letter do not significantly differ (P=.05, LSD)

FINISH/GINSTAR HARVEST AID EVALUATION

AVENTIS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/19/01 7 DA-A	COTTON DEFOL PERCENT 10/19/01 7 DA-A	COTTON DESSIC PERCENT 10/19/01 7 DA-A	COTTON OPENBOLL PERCENT 10/25/01 13 DA-A
9	FINISH	6	L	8	OZ/A	3-4NACB	A	72 a	90 a	0 a	88 ab
9	DEF 6	6	EC	8	OZ/A	3-4NACB	A				
9	PREP	6	EC	8	OZ/A	3-4NACB	A				
10	TADS14782	6	EC	32	OZ/A	3-4NACB	A	76.7 a	88.3 a	0 a	91.3 a
10	NIS (INDUCE)		L	0.25	% V/V	3-4NACB	A				
11	DEF 6	6	EC	16	OZ/A	3-4NACB	A	72 a	88.7 a	0 a	83.3 abc
11	PREP	6	EC	16	OZ/A	3-4NACB	A				
LSD (P=.05)								13.29	13.25	0	13.63
Standard Deviation								7.8	7.78	0	8
CV								10.93	10.53	0	9.82

Means followed by same letter do not significantly differ (P=.05, LSD)

FINISH/GINSTAR HARVEST AID EVALUATION

AVENTIS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON DEFOL PERCENT 10/25/01 13 DA-A	COTTON DESSIC PERCENT 10/25/01 13 DA-A	GIN TURNOUT PERCENT 12/10/01 59 DA-A	LINT YIELD LBS/ACRE 12/10/01 59 DA-A
1	UNTREATED							20 e	0 b	34.17 a	737 bc
2	FINISH	6	EC	32	OZ/A	3-4NACB	A	90 a	0 b	34.37 a	792 ab
2	INDUCE		L	0.25	% V/V	3-4NACB	A				
3	DROPP	50	WP	0.1	LB/A	3-4NACB	A	75 c	0 b	34.87 a	748 abc
3	DEF 6	6	EC	16	OZ/A	3-4NACB	A				
4	DROPP	50	WP	0.07	LB/A	3-4NACB	A	61.7 d	0 b	34.63 a	675 c
4	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A				
4	DYNAMIC		L	2	OZ/A	3-4NACB	A				
5	GINSTAR	1.5	EC	6	OZ/A	3-4NACB	A	78.3 bc	0 b	34.57 a	714 bc
6	GINSTAR	1.5	EC	5	OZ/A	3-4NACB	A	88.7 ab	0 b	35.03 a	744 abc
6	AMM. SULFATE	100	SG	17	LB/100	3-4NACB	A				
7	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A	88.3 ab	0 b	34.83 a	823 a
7	FINISH	6	L	16	OZ/A	3-4NACB	A				
8	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A	81.7 abc	0 b	35.07 a	744 abc
8	FINISH	6	L	8	OZ/A	3-4NACB	A				
8	DYNAMIC		L	2	OZ/A	3-4NACB	A				
9	FINISH	6	L	8	OZ/A	3-4NACB	A	87.7 ab	5 a	34.23 a	775 ab
9	DEF 6	6	EC	8	OZ/A	3-4NACB	A				
9	PREP	6	EC	8	OZ/A	3-4NACB	A				
10	TADS14782	6	EC	32	OZ/A	3-4NACB	A	91 a	0 b	34.27 a	769 ab
10	NIS (INDUCE)		L	0.25	% V/V	3-4NACB	A				
11	DEF 6	6	EC	16	OZ/A	3-4NACB	A	90.3 a	0 b	34.87 a	790 ab
11	PREP	6	EC	16	OZ/A	3-4NACB	A				
LSD (P=.05)								11.61	2.57	1.465	80.8
Standard Deviation								6.82	1.51	0.86	47.5
CV								8.8	331.66	2.48	6.28

Means followed by same letter do not significantly differ (P=.05, LSD)

FINISH/GINSTAR HARVEST AID EVALUATION

AVENTIS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	FIBER DATA MIC	FIBER DATA LENGTH	FIBER DATA STRENGTH	FIBER DATA UNIFORM
	Crop							FIBER	FIBER	FIBER	FIBER
	Rating Data Type							DATA	DATA	DATA	DATA
	Rating Unit							MIC	LENGTH	STRENGTH	UNIFORM
	Rating Date							1/10/02	1/10/02	1/10/02	1/10/02
	Trt-Eval Interval							90 DA-A	90 DA-A	90 DA-A	90 DA-A
1	UNTREATED							5.03 ab	1.18 a	32.67 a	83.8 abc
2	FINISH	6	EC	32	OZ/A	3-4NACB	A	4.67 bc	1.157 a	31.73 a	83.53 abc
2	INDUCE		L	0.25	% V/V	3-4NACB	A				
3	DROPP	50	WP	0.1	LB/A	3-4NACB	A	4.97 ab	1.173 a	31.93 a	83.37 abc
3	DEF 6	6	EC	16	OZ/A	3-4NACB	A				
4	DROPP	50	WP	0.07	LB/A	3-4NACB	A	4.87 abc	1.17 a	31.1 a	83.13 bc
4	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A				
4	DYNAMIC		L	2	OZ/A	3-4NACB	A				
5	GINSTAR	1.5	EC	6	OZ/A	3-4NACB	A	4.93 ab	1.153 a	32.5 a	84.27 ab
6	GINSTAR	1.5	EC	5	OZ/A	3-4NACB	A	4.77 abc	1.18 a	31.4 a	83.8 abc
6	AMM. SULFATE	100	SG	17	LB/100	3-4NACB	A				
7	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A	4.87 abc	1.143 a	31.53 a	84.33 ab
7	FINISH	6	L	16	OZ/A	3-4NACB	A				
8	GINSTAR	1.5	EC	3	OZ/A	3-4NACB	A	4.73 abc	1.16 a	30.67 a	82.8 c
8	FINISH	6	L	8	OZ/A	3-4NACB	A				
8	DYNAMIC		L	2	OZ/A	3-4NACB	A				
9	FINISH	6	L	8	OZ/A	3-4NACB	A	4.73 abc	1.16 a	31.27 a	84.3 ab
9	DEF 6	6	EC	8	OZ/A	3-4NACB	A				
9	PREP	6	EC	8	OZ/A	3-4NACB	A				
10	TADS14782	6	EC	32	OZ/A	3-4NACB	A	4.53 c	1.17 a	31.7 a	84.6 a
10	NIS (INDUCE)		L	0.25	% V/V	3-4NACB	A				
11	DEF 6	6	EC	16	OZ/A	3-4NACB	A	5.07 a	1.15 a	32.5 a	83.8 abc
11	PREP	6	EC	16	OZ/A	3-4NACB	A				
	LSD (P=.05)							0.391	0.0369	2.129	1.282
	Standard Deviation							0.23	0.0216	1.25	0.753
	CV							4.75	1.86	3.94	0.9

Means followed by same letter do not significantly differ (P=.05, LSD)

FINISH/GINSTAR HARVEST AID EVALUATION
AVENTIS

APPLICATION DESCRIPTION	
	A
Application Date:	10/12/01
Time of Day:	5:30 PM
Application Method:	SPRAY
Application Timing:	52%OPEN
Applic. Placement:	BROADCAST
Air Temp., Unit:	69 F
% Relative Humidity:	63
Wind Velocity, Unit:	11 MPH
Soil Temp., Unit:	72 F
Soil Moisture:	DRY
% Cloud Cover:	80

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD 6000
Operating Pressure:	58 PSI
Nozzle Type:	TEEJET
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GPA
Propellant:	CO2

BELTWIDE UNIFORM HARVEST AID EVALUATION

OSU

TRIAL ID:	BELHA0101	**LOCATION:**	OSUREC
VARIETY:	PM 2326 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	4

Project Summary:

The Beltwide Uniform Harvest Aid project is a cooperative effort from academic researchers to evaluate a uniform set of harvest aid treatments. Commercial manufacturers of harvest aids enter products into this trial for evaluation across the belt. These entries are compared to predetermined standards for boll opening, defoliation, desiccation, regrowth and overall performance. Treatments 1-5 are considered the standards and treatments 6-10 are commercial entries. A week after application little difference in open boll percentages were observed. The overall performances of treatments 6 (HM2047 plus Ethephon), 7 (Def plus Dropp), and 10 (Aim plus Ethephon) were less than other treatments. Fourteen days after treatment, plots which received treatment 10 (Aim plus Ethephon followed by Aim 7 DAIT) had less open bolls than any other treatment, including the untreated. Likewise, the overall performance (defoliation, desiccation, open bolls) of this treatment and treatment 6 (HM2047 plus Ethephon followed by Cyclone Max 7 DAIT) was less than all other treatments except for the untreated check. No terminal regrowth was observed from any treatments at approximately 21 days after treatment. However, basal regrowth was greatest on plots which received treatment 8 (ET-751 plus Ethephon followed by Cyclone Max).

Crop							COTTON	COTTON	COTTON	COTTON
Rating Data Type							OPEN	PERFM	DEFOL	DESSC
Rating Unit							%	%	%	%
Rating Date							9/28/01	9/28/01	9/28/01	9/28/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED							58.5 ab	29 d	0 g	0 b
1	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
1	INDUCE		L	0.25	% V/V	7DAIT	B				
2	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A	65.6 ab	72 a	78 a	2.5 b
2	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
2	THIDIAZURON	50	WP	0.05	LB A/A	55%OPEN	A				
2	CYCLONE MAX	3	EC	16	OZ/A	7DAIT	B				
2	INDUCE		L	0.25	% V/V	7DAIT	B				
3	DIMETHIPIN	5	L	0.31	LB A/A	55%OPEN	A	67.1 ab	70 ab	73 ab	0 b
3	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A				
3	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
3	AGRIDEX		L	1	PT/A	55%OPEN	A				
3	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
3	INDUCE		L	0.25	% V/V	7DAIT	B				
4	THIDIAQURON	50	WP	0.05	LB A/A	55%OPEN	A	73.2 a	71 a	69 abc	0 b
4	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
4	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
4	INDUCE		L	0.25	% V/V	7DAIT	B				
5	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A	71.8 a	68 ab	64 bcd	0 b
5	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
5	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
5	INDUCE		L	0.25	% V/V	7DAIT	B				

Means followed by same letter do not significantly differ (P=.05, LSD)

Crop							COTTON	COTTON	COTTON	COTTON
Rating Data Type							OPEN	PERFM	DEFOL	DESSC
Rating Unit							%	%	%	%
Rating Date							9/28/01	9/28/01	9/28/01	9/28/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
6	HM2047		DF	1	LB/A	55%OPEN	A	74.2 a	46 c	18 f	0 b
6	ETHEPHON	6	EC	1	LB A/A	55%OPEN	A				
6	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
6	INDUCE		L	0.25	% V/V	7DAIT	B				
7	DEF 6	6	EC	16	OZ/A	55%OPEN	A	63.4 ab	60 b	56 d	7.5 a
7	DROPP	50	WP	0.2	LB/A	55%OPEN	A				
7	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
7	INDUCE		L	0.25	% V/V	7DAIT	B				
8	ET-751	0.2	EC	1.6	G A/A	55%OPEN	A	72.7 a	67 ab	61 cd	11.3 a
8	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
8	AGRIDEX		L	0.5	% V/V	55%OPEN	A				
8	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
8	INDUCE		L	0.25	% V/V	7 DAIT	B				
9	ET-751	0.2	EC	1.2	G A/A	55%OPEN	A	68.4 ab	65 ab	61 cd	10 a
9	GINSTAR	1.5	EC	0.05	LB A/A	55%OPEN	A				
9	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
9	AGRIDEX		L	1	% V/V	55%OPEN	A				
9	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
9	INDUCE		L	0.25	% V/V	7 DAIT	B				
10	AIM	40	DF	0.02	LB A/A	55%OPEN	A	55.7 b	46 c	36 e	11.3 a
10	ETHEPHON	6	L	0.75	LB A/A	55%OPEN	A				
10	AGRIDEX		L	1	% V/V	55%OPEN	A				
10	AIM	40	DF	0.02	LB A/A	7 DAIT	B				
10	AGRIDEX		L	1	% V/V	7 DAIT	B				
LSD (P=.05)								15.74	10.3	10.19	4.19
Standard Deviation								10.84	7.1	7.03	2.89
CV								16.17	12	13.64	67.92
Means followed by same letter do not significantly differ (P=.05, LSD)											

BELTWIDE UNIFORM HARVEST AID EVALUATION

OSU

Crop							COTTON	COTTON	COTTON	COTTON
Rating Data Type							OPEN	PERFM	DEFOL	DESSC
Rating Unit							%	%	%	%
Rating Date							10/4/01	10/4/01	10/4/01	10/4/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED							85.8 b	54 c	23 c	76.3 a
1	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
1	INDUCE		L	0.25	% V/V	7DAIT	B				
2	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A	95.5 a	95 a	94 a	6.3 cd
2	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
2	THIDIAZURON	50	WP	0.05	LB A/A	55%OPEN	A				
2	CYCLONE MAX	3	EC	16	OZ/A	7DAIT	B				
2	INDUCE		L	0.25	% V/V	7DAIT	B				
3	DIMETHIPIN	5	L	0.31	LB A/A	55%OPEN	A	93 ab	92 a	90 a	10 cd
3	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A				
3	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
3	AGRIDEX		L	1	PT/A	55%OPEN	A				
3	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
3	INDUCE		L	0.25	% V/V	7DAIT	B				
4	THIDIAQURON	50	WP	0.05	LB A/A	55%OPEN	A	96.1 a	92 a	88 a	12.5 c
4	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
4	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
4	INDUCE		L	0.25	% V/V	7DAIT	B				
5	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A	95.3 a	93 a	90 a	10 cd
5	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
5	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
5	INDUCE		L	0.25	% V/V	7DAIT	B				
6	HM2047		DF	1	LB/A	55%OPEN	A	90.2 ab	82 b	73 b	24.5 b
6	ETHEPHON	6	EC	1	LB A/A	55%OPEN	A				
6	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
6	INDUCE		L	0.25	% V/V	7DAIT	B				
7	DEF 6	6	EC	16	OZ/A	55%OPEN	A	90 ab	90 a	89 a	10.8 cd
7	DROPP	50	WP	0.2	LB/A	55%OPEN	A				
7	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
7	INDUCE		L	0.25	% V/V	7DAIT	B				

Means followed by same letter do not significantly differ (P=.05, LSD)

BELTWIDE UNIFORM HARVEST AID EVALUATION

OSU

Crop							COTTON	COTTON	COTTON	COTTON
Rating Data Type							OPEN	PERFM	DEFOL	DESSC
Rating Unit							%	%	%	%
Rating Date							10/4/01	10/4/01	10/4/01	10/4/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
8	ET-751	0.2	EC	1.6	G A/A	55%OPEN	A	94 a	91 a	89 a	11 c
8	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
8	AGRIDEX		L	0.5	% V/V	55%OPEN	A				
8	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
8	INDUCE		L	0.25	% V/V	7 DAIT	B				
9	ET-751	0.2	EC	1.2	G A/A	55%OPEN	A	89.9 ab	90 a	89 a	11.5 c
9	GINSTAR	1.5	EC	0.05	LB A/A	55%OPEN	A				
9	ETHEPHON	6	L	1	LB A/A	55%OPEN	A				
9	AGRIDEX		L	1	% V/V	55%OPEN	A				
9	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B				
9	INDUCE		L	0.25	% V/V	7 DAIT	B				
10	AIM	40	DF	0.02	LB A/A	55%OPEN	A	65.1 c	77 b	88 a	2.5 d
10	ETHEPHON	6	L	0.75	LB A/A	55%OPEN	A				
10	AGRIDEX		L	1	% V/V	55%OPEN	A				
10	AIM	40	DF	0.02	LB A/A	7 DAIT	B				
10	AGRIDEX		L	1	% V/V	7 DAIT	B				
LSD (P=.05)								7.69	7.6	9.2	8.47
Standard Deviation								5.3	5.2	6.34	5.84
CV								5.92	6.09	7.81	33.33
Means followed by same letter do not significantly differ (P=.05, LSD)											

BELTWIDE UNIFORM HARVEST AID EVALUATION

OSU

Crop							COTTON	COTTON
Rating Data Type							TER-REG	BAS-REG
Rating Unit							#P/METER	#P/METER
Rating Date							10/13/01	10/13/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	UNTREATED							0 a	5 e
1	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
1	INDUCE		L	0.25	% V/V	7DAIT	B		
2	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A	0 a	9.5 abc
2	ETHEPHON	6	L	1	LB A/A	55%OPEN	A		
2	THIDIAZURON	50	WP	0.05	LB A/A	55%OPEN	A		
2	CYCLONE MAX	3	EC	16	OZ/A	7DAIT	B		
2	INDUCE		L	0.25	% V/V	7DAIT	B		
3	DIMETHIPIN	5	L	0.31	LB A/A	55%OPEN	A	0 a	8.5 bcd
3	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A		
3	ETHEPHON	6	L	1	LB A/A	55%OPEN	A		
3	AGRIDEX		L	1	PT/A	55%OPEN	A		
3	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
3	INDUCE		L	0.25	% V/V	7DAIT	B		
4	THIDIAQURON	50	WP	0.05	LB A/A	55%OPEN	A	0 a	9 abc
4	ETHEPHON	6	L	1	LB A/A	55%OPEN	A		
4	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
4	INDUCE		L	0.25	% V/V	7DAIT	B		
5	TRIBUFOS	6	EC	0.56	LB A/A	55%OPEN	A	0 a	10.3 ab
5	ETHEPHON	6	L	1	LB A/A	55%OPEN	A		
5	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
5	INDUCE		L	0.25	% V/V	7DAIT	B		
6	HM2047		DF	1	LB/A	55%OPEN	A	0 a	7.8 b-e
6	ETHEPHON	6	EC	1	LB A/A	55%OPEN	A		
6	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
6	INDUCE		L	0.25	% V/V	7DAIT	B		
7	DEF 6	6	EC	16	OZ/A	55%OPEN	A	0 a	5.3 de
7	DROPP	50	WP	0.2	LB/A	55%OPEN	A		
7	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
7	INDUCE		L	0.25	% V/V	7DAIT	B		

Means followed by same letter do not significantly differ (P=.05, LSD)

BELTWIDE UNIFORM HARVEST AID EVALUATION

OSU

Crop							COTTON	COTTON
Rating Data Type							TER-REG	BAS-REG
Rating Unit							#P/METER	#P/METER
Rating Date							10/13/01	10/13/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
8	ET-751	0.2	EC	1.6	G A/A	55%OPEN	A	0 a	12 a
8	ETHEPHON	6	L	1	LB A/A	55%OPEN	A		
8	AGRIDEX		L	0.5	% V/V	55%OPEN	A		
8	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
8	INDUCE		L	0.25	% V/V	7 DAIT	B		
9	ET-751	0.2	EC	1.2	G A/A	55%OPEN	A	0 a	6.5 cde
9	GINSTAR	1.5	EC	0.05	LB A/A	55%OPEN	A		
9	ETHEPHON	6	L	1	LB A/A	55%OPEN	A		
9	AGRIDEX		L	1	% V/V	55%OPEN	A		
9	CYCLONE MAX	3	EC	16	OZ/A	7 DAIT	B		
9	INDUCE		L	0.25	% V/V	7 DAIT	B		
10	AIM	40	DF	0.02	LB A/A	55%OPEN	A	0 a	7.3 b-e
10	ETHEPHON	6	L	0.75	LB A/A	55%OPEN	A		
10	AGRIDEX		L	1	% V/V	55%OPEN	A		
10	AIM	40	DF	0.02	LB A/A	7 DAIT	B		
10	AGRIDEX		L	1	% V/V	7 DAIT	B		
LSD (P=.05)							0	3.33	
Standard Deviation							0	2.3	
CV							0	28.37	
Means followed by same letter do not significantly differ (P=.05, LSD)									

BELTWIDE UNIFORM HARVEST AID EVALUATION
OSU

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	9/21/01	9/28/01
Time of Day:	11:00 AM	3:00 PM
Application Method:	SPRAY	SPRAY
Application Timing:	55%OPEN	7DAIT
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	81 F	87 F
% Relative Humidity:	54	24
Wind Velocity, Unit:	4 MPH	7 MPH
Soil Temp., Unit:	79 F	90 F
Soil Moisture:	DRY	DRY
% Cloud Cover:	5	0

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD 6000	JD 6000
Operating Pressure:	58 PSI	58 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
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, Unit:	15 GPA	15 GPA
Propellant:	CO2	CO2

AIM HARVEST AID EVALUATION

FMC

TRIAL ID:	FMCHA0101	**LOCATION:**	OSUREC
VARIETY:	DP 458 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3

Project Summary:

The objective of this trial was to evaluate the effectiveness of the newly registered Aim harvest aid product in irrigated Oklahoma cotton. A week after application, all treatments displayed a greater percentage open bolls than the untreated, but there was little difference between the remaining treatments. Defoliation was greatest where plots received Def (1.0 lb a/a = 1.3 pt/a) plus Prep (0.75 lb a/a = 1 pt/a) or Aim (0.015 lb a/a = 2/3 oz/a) plus Def plus Prep. At the fourteen day observation, all treatments except for sequential applications of Aim alone provided at least 82% defoliation.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/19/01 7 DA-A	COTTON DEFOL PERCENT 10/19/01 7 DA-A	COTTON DESSIC PERCENT 10/19/01 7 DA-A
1	UNTREATED CHECK							63 d	33.3 g	0 b
2	AIM	40	DF	0.015	LB A/A	70% OPEN	A	73.7 bc	63.3 f	0 b
2	COC		L	1%	V/V	70% OPEN	A			
2	AIM	40	DF	0.015	LB A/A	7 DAIT	B			
2	COC		L	1%	V/V	7 DAIT	B			
3	AIM	40	DF	0.015	LB A/A	70% OPEN	A	76.7 abc	73.3 def	0 b
3	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	70% OPEN	A			
3	COC		L	1%	V/V	70% OPEN	A			
4	AIM	40	DF	0.015	LB A/A	70% OPEN	A	78.3 abc	70 ef	0 b
4	COC		L	1%	V/V	70% OPEN	A			
5	AIM	40	DF	0.015	LB A/A	70% OPEN	A	79 ab	86.7 abc	0 b
5	PREP	6	L	1	LB A/A	70% OPEN	A			
5	COC		L	1%	V/V	70% OPEN	A			
5	AIM	40	DF	0.015	LB A/A	7 DAIT	B			
5	COC		L	1%	V/V	7 DAIT	B			
6	AIM	40	DF	0.015	LB A/A	70% OPEN	A	78 abc	76.7 cde	0 b
6	HARVADE	5	F	0.3125	LB A/A	70% OPEN	A			
6	COC		L	1%	V/V	70% OPEN	A			
7	AIM	40	DF	0.015	LB A/A	70% OPEN	A	76 abc	81.7 cd	0 b
7	PREP	6	L	0.75	LB A/A	70% OPEN	A			
7	COC		L	1%	V/V	70% OPEN	A			

Means followed by same letter do not significantly differ (P=.05, LSD)

AIM HARVEST AID EVALUATION

FMC

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/19/01 7 DA-A	COTTON DEFOL PERCENT 10/19/01 7 DA-A	COTTON DESSIC PERCENT 10/19/01 7 DA-A
8	AIM	40	DF	0.015	LB A/A	70% OPEN	A	76 abc	84.3 c	0 b
8	FINISH	6	L	0.75	LB A/A	70% OPEN	A			
8	COC		L	1	% V/V	70% OPEN	A			
9	AIM	40	DF	0.015	LB A/A	70% OPEN	A	79.3 ab	95.7 a	0 b
9	PREP	6	L	0.75	LB A/A	70% OPEN	A			
9	DEF	6	EC	0.75	LB A/A	70% OPEN	A			
9	COC		L	1	% V/V	70% OPEN	A			
10	AIM	40	DF	0.015	LB A/A	70% OPEN	A	77 abc	84.7 bc	0 b
10	DROPP	50	WP	0.1	LB A/A	70% OPEN	A			
10	COC		L	1	% V/V	70% OPEN	A			
11	AIM	40	DF	0.015	LB A/A	70% OPEN	A	71 c	83.3 cd	1.7 a
11	DROPP	50	WP	0.05	LB A/A	70% OPEN	A			
11	COC		L	1	% V/V	70% OPEN	A			
12	PREP	6	L	1	LB A/A	70% OPEN	A	82.7 a	95 ab	0 b
12	DEF	6	EC	0.75	LB A/A	70% OPEN	A			
12	COC		L	1	% V/V	70% OPEN	A			
LSD (P=.05)								7.96	10.56	1.41
Standard Deviation								4.7	6.23	0.83
CV								6.19	8.06	600

Means followed by same letter do not significantly differ (P=.05, LSD)

AIM HARVEST AID EVALUATION

FMC

Crop							COTTON	COTTON	COTTON
Rating Data Type							OPENBOLL	DEFOL	DESSIC
Rating Unit							PERCENT	PERCENT	PERCENT
Rating Date							10/26/01	10/26/01	10/26/01
Trt-Eval Interval							14 DA-A	14 DA-A	14 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	UNTREATED CHECK							80.7 c	36.7 d	0 b
2	F8426	40	DF	0.015	LB A/A	70% OPEN	A	83.3 abc	75.7 c	6.7 a
2	COC		L	1	% V/V	70% OPEN	A			
2	F8426	40	DF	0.015	LB A/A	7 DAIT	B			
2	COC		L	1	% V/V	7 DAIT	B			
3	F8426	40	DF	0.015	LB A/A	70% OPEN	A	87.3 abc	82.3 bc	1.7 b
3	AMMONIUM SULFATE	100	SG	17	LB/100 GAL	70% OPEN	A			
3	COC		L	1	% V/V	70% OPEN	A			
4	F8426	40	DF	0.015	LB A/A	70% OPEN	A	90 abc	86 ab	0 b
4	COC		L	1	% V/V	70% OPEN	A			
5	F8426	40	DF	0.015	LB A/A	70% OPEN	A	88.7 abc	90.3 ab	1.7 b
5	PREP	6	L	1	LB A/A	70% OPEN	A			
5	COC		L	1	% V/V	70% OPEN	A			
5	F8426	40	DF	0.015	LB A/A	7 DAIT	B			
5	COC		L	1	% V/V	7 DAIT	B			
6	F8426	40	DF	0.015	LB A/A	70% OPEN	A	90 abc	83.3 bc	0 b
6	HARVADE	5	F	0.3125	LB A/A	70% OPEN	A			
6	COC		L	1	% V/V	70% OPEN	A			
7	F8426	40	DF	0.015	LB A/A	70% OPEN	A	94 ab	86 ab	0 b
7	PREP	6	L	0.75	LB A/A	70% OPEN	A			
7	COC		L	1	% V/V	70% OPEN	A			
8	F8426	40	DF	0.015	LB A/A	70% OPEN	A	94 ab	90.3 ab	0 b
8	FINISH	6	L	0.75	LB A/A	70% OPEN	A			
8	COC		L	1	% V/V	70% OPEN	A			

Means followed by same letter do not significantly differ (P=.05, LSD)

AIM HARVEST AID EVALUATION

FMC

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT	COTTON DEFOL PERCENT	COTTON DESSIC PERCENT
	Crop							COTTON	COTTON	COTTON
	Rating Data Type							OPENBOLL	DEFOL	DESSIC
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							10/26/01	10/26/01	10/26/01
	Trt-Eval Interval							14 DA-A	14 DA-A	14 DA-A
9	F8426	40	DF	0.015	LB A/A	70% OPEN	A	92 abc	93.3 a	2.7 b
9	PREP	6	L	0.75	LB A/A	70% OPEN	A			
9	DEF	6	EC	0.75	LB A/A	70% OPEN	A			
9	COC		L	1	% V/V	70% OPEN	A			
10	F8426	40	DF	0.015	LB A/A	70% OPEN	A	86.7 abc	87.7 ab	0 b
10	DROPP	50	WP	0.1	LB A/A	70% OPEN	A			
10	COC		L	1	% V/V	70% OPEN	A			
11	F8426	40	DF	0.015	LB A/A	70% OPEN	A	81.3 bc	86.7 ab	0 b
11	DROPP	50	WP	0.05	LB A/A	70% OPEN	A			
11	COC		L	1	% V/V	70% OPEN	A			
12	PREP	6	L	1	LB A/A	70% OPEN	A	96 a	93.3 a	1 b
12	DEF	6	EC	0.75	LB A/A	70% OPEN	A			
12	COC		L	1	% V/V	70% OPEN	A			
	LSD (P=.05)							12.73	8.76	3.52
	Standard Deviation							7.52	5.17	2.08
	CV							8.48	6.26	182.73

Means followed by same letter do not significantly differ (P=.05, LSD)

AIM HARVEST AID EVALUATION

FMC

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	10/12/01	10/22/01
Time of Day:	6:00 PM	3:00 PM
Application Method:	SPRAY	SPRAY
Application Timing:	60%OPEN	10DAIT
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	69 F	71 F
% Relative Humidity:	63	52
Wind Velocity, Unit:	10 MPH	6 MPH
Soil Temp., Unit:	72 F	68 F
Soil Moisture:	MARGINAL	MARGINAL
% Cloud Cover:	85	0

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD 6000	JD 6000
Operating Pressure:	58 PSI	58 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
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, Unit:	15 GPA	15 GPA
Propellant:	CO2	CO2

COTTON QUIK HARVEST AID EVALUATION

GRIFFIN

TRIAL ID:	GRIHA0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3

Project Summary:
This trials objective was to evaluate the effectiveness of Cotton Quik harvest aid in irrigated Oklahoma cotton. One week after application, all treatments except Cotton Quik plus 3oz/a of Ginstar provided at least 80% defoliation. By two weeks after application, there was no differences in defoliation between any treatments. All treatments provided at least 96% defoliation and there was no open boll differences between treated plots. Basal regrowth was significantly less when at least 5 oz/a of Ginstar was applied.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON DEFOL PERCENT	COTTON DESSIC PERCENT	COTTON OPENBOLL PERCENT
	Crop							COTTON	COTTON	COTTON
	Rating Data Type							DEFOL	DESSIC	OPENBOLL
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							10/8/01	10/8/01	10/8/01
	Trt-Eval Interval							7 DA-A	7 DA-A	7 DA-A
1	UNTREATED CHECK							0 c	0 b	64.3 b
2	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	73.3 b	0 b	81.3 a
2	GINSTAR	1.5	EC	3	OZ/A	60%OPEN	A			
2	NIS		L	0.5	% V/V	60%OPEN	A			
3	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	85 a	0 b	78.7 a
3	GINSTAR	1.5	EC	5	OZ/A	60%OPEN	A			
3	NIS		L	0.5	% V/V	60%OPEN	A			
4	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	80 a	15 a	80.7 a
4	BOA	2	EC	8	OZ/A	60%OPEN	A			
4	NIS		L	0.5	% V/V	60%OPEN	A			
5	SUPERBOLL	6	L	21	OZ/A	60%OPEN	A	84.3 a	0 b	80.7 a
5	DEF 6	6	L	16	OZ/A	60%OPEN	A			
5	NIS		L	0.5	% V/V	60%OPEN	A			
6	FINISH	6	L	16	OZ/A	60%OPEN	A	85.3 a	0 b	80.7 a
6	GINSTAR	1.5	EC	6	OZ/A	60%OPEN	A			
6	NIS		L	0.5	% V/V	60%OPEN	A			
7	FINISH	6	L	16	OZ/A	60%OPEN	A	85 a	0 b	79.3 a
7	DEF 6	6	EC	8	OZ/A	60%OPEN	A			
7	NIS		L	0.5	% V/V	60%OPEN	A			
	LSD (P=.05)							6.25	5.82	9.77
	Standard Deviation							3.51	3.27	5.49
	CV							4.99	152.75	7.04

Means followed by same letter do not significantly differ (P=.05, LSD)

COTTON QUIK HARVEST AID EVALUATION

GRIFFIN

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON DEFOL PERCENT 10/16/01 15 DA-A	COTTON DESSIC PERCENT 10/16/01 15 DA-A	COTTON OPENBOLL PERCENT 10/16/01 15 DA-A
1	UNTREATED CHECK							16.7 b	0 a	73.3 b
2	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	99.3 a	0 a	92.7 a
2	GINSTAR	1.5	EC	3	OZ/A	60%OPEN	A			
2	NIS		L	0.5	% V/V	60%OPEN	A			
3	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	100 a	0 a	87.3 ab
3	GINSTAR	1.5	EC	5	OZ/A	60%OPEN	A			
3	NIS		L	0.5	% V/V	60%OPEN	A			
4	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	96.7 a	3.3 a	90 ab
4	BOA	2	EC	8	OZ/A	60%OPEN	A			
4	NIS		L	0.5	% V/V	60%OPEN	A			
5	SUPERBOLL	6	L	21	OZ/A	60%OPEN	A	96.3 a	0 a	91.3 ab
5	DEF 6	6	L	16	OZ/A	60%OPEN	A			
5	NIS		L	0.5	% V/V	60%OPEN	A			
6	FINISH	6	L	16	OZ/A	60%OPEN	A	99.3 a	0 a	89.3 ab
6	GINSTAR	1.5	EC	6	OZ/A	60%OPEN	A			
6	NIS		L	0.5	% V/V	60%OPEN	A			
7	FINISH	6	L	16	OZ/A	60%OPEN	A	96.7 a	0 a	86.7 ab
7	DEF 6	6	EC	8	OZ/A	60%OPEN	A			
7	NIS		L	0.5	% V/V	60%OPEN	A			
LSD (P=.05)								6.06	3.88	18.77
Standard Deviation								3.41	2.18	10.55
CV								3.94	458.26	12.09

Means followed by same letter do not significantly differ (P=.05, LSD)

COTTON QUIK HARVEST AID EVALUATION

GRIFFIN

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON TER. REGR 1-5 SCAL 10/24/01 23 DA-A	COTTON BAS. REGR 1-5 SCAL 10/24/01 23 DA-A
1	UNTREATED CHECK							0 a	0 b
2	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	0 a	1.7 a
2	GINSTAR	1.5	EC	3	OZ/A	60%OPEN	A		
2	NIS		L	0.5	% V/V	60%OPEN	A		
3	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	0 a	0.3 b
3	GINSTAR	1.5	EC	5	OZ/A	60%OPEN	A		
3	NIS		L	0.5	% V/V	60%OPEN	A		
4	COTTON QUIK	2.28	L	48	OZ/A	60%OPEN	A	0 a	2 a
4	BOA	2	EC	8	OZ/A	60%OPEN	A		
4	NIS		L	0.5	% V/V	60%OPEN	A		
5	SUPERBOLL	6	L	21	OZ/A	60%OPEN	A	0 a	2 a
5	DEF 6	6	L	16	OZ/A	60%OPEN	A		
5	NIS		L	0.5	% V/V	60%OPEN	A		
6	FINISH	6	L	16	OZ/A	60%OPEN	A	0 a	0 b
6	GINSTAR	1.5	EC	6	OZ/A	60%OPEN	A		
6	NIS		L	0.5	% V/V	60%OPEN	A		
7	FINISH	6	L	16	OZ/A	60%OPEN	A	0 a	2 a
7	DEF 6	6	EC	8	OZ/A	60%OPEN	A		
7	NIS		L	0.5	% V/V	60%OPEN	A		
LSD (P=.05)								0	1.28
Standard Deviation								0	0.72
CV								0	62.85

Means followed by same letter do not significantly differ (P=.05, LSD)

COTTON QUIK HARVEST AID EVALUATION

GRIFFIN

APPLICATION DESCRIPTION	
	A
Application Date:	10/1/01
Time of Day:	2:00PM
Application Method:	SPRAY
Application Timing:	60-70%OPN
Applic. Placement:	BROADCAST
Air Temp., Unit:	89 F
% Relative Humidity:	18
Wind Velocity, Unit:	4 MPH
Soil Temp., Unit:	91 F
Soil Moisture:	DRY
% Cloud Cover:	0

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD 6000
Operating Pressure:	58 PSI
Nozzle Type:	TJFLATFAN
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GPA
Propellant:	CO2

ET-751 HARVEST AID EVALUATION

NICHINO AMERICA

TRIAL ID:	NIHHA0101	**LOCATION:**	OSUREC
VARIETY:	PM 2326 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3

Project Summary:

ET-751 is a newly emerging harvest aid material for stipper cotton. The objective of this trial was to compare its effectiveness to some of the standard used in Oklahoma. Seven days after treatment, ET-751 alone at its highest rate (1.2 g a/a) and ET-751 plus Cotton Quik provided equal defoliation to that of Def plus Prep. By 14 days after treatment, defoliation from ET-751 plus Prep, Cotton Quik, or Finish was equal to that of Def plus Prep. Differences in open boll percentages were slight while the least amount of regrowth was observed when ET-751 was combined with Ginstar.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/4/01 6 DA-A	COTTON DEFOL PERCENT 10/4/01 6 DA-A	COTTON DESSIC PERCENT 10/4/01 6 DA-A	COTTON OPENBOLL PERCENT 10/13/01 15 DA-A
1	UNTREATED							65.3 abc	1.7 d	0 b	94.7 bcd
1	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
1	INDUCE		L	0.25	% V/V	7DAIT	B				
2	ET-751	0.2	EC	1.2	G A/A	50-60%OB	A	70.7 abc	61.7 ab	6.7 a	93.3 cd
2	COC		L	1	% V/V	50-60%OB	A				
2	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
2	INDUCE		L	0.25	% V/V	7DAIT	B				
3	ET-751	0.2	EC	1	G A/A	50-60%OB	A	76.7 ab	53.3 bc	8.3 a	92 d
3	GINSTAR	1.5	EC	0.05	LB A/A	50-60%OB	A				
3	COC		L	1	% V/V	50-60%OB	A				
3	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
3	INDUCE		L	0.25	% V/V	7DAIT	B				
4	ET-751	0.2	EC	1	G A/A	50-60%OB	A	70.7 abc	53.3 bc	1.7 b	98 ab
4	PREP	6	EC	1	LB A/A	50-60%OB	A				
4	COC		L	1	% V/V	50-60%OB	A				
4	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
4	INDUCE		L	0.25	% V/V	7DAIT	B				
5	ET-751	0.2	EC	1	G A/A	50-60%OB	A	78 a	70 a	0 b	99.3 a
5	COTTON QUIK	2.28	EC	1	LB A/A	50-60%OB	A				
5	COC		L	1	% V/V	50-60%OB	A				
5	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
5	INDUCE		L	0.25	% V/V	7DAIT	B				

Means followed by same letter do not significantly differ (P=.05, LSD)

ET-751 HARVEST AID EVALUATION

NICHINO AMERICA

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/4/01 6 DA-A	COTTON DEFOL PERCENT 10/4/01 6 DA-A	COTTON DESSIC PERCENT 10/4/01 6 DA-A	COTTON OPENBOLL PERCENT 10/13/01 15 DA-A
6	ET-751	0.2	EC	1	G A/A	50-60%OB	A	60 c	46 c	0 b	97.3 abc
6	FINISH	6	EC	1	LB A/A	50-60%OB	A				
6	COC		L	1	% V/V	50-60%OB	A				
6	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
6	INDUCE		L	0.25	% V/V	7DAIT	B				
7	GINSTAR	1.5	EC	0.076	LB A/A	50-60%OB	A	62 bc	56.7 b	0 b	96.7 abc
7	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
7	INDUCE		L	0.25	% V/V	7DAIT	B				
8	DEF	6	EC	0.75	LB A/A	50-60%OB	A	69.3 abc	68.3 a	0 b	100 a
8	PREP	6	EC	1	LB A/A	50-60%OB	A				
8	CYCLONE MAX	3	EC	0.5	LB A/A	7DAIT	B				
8	INDUCE		L	0.25	% V/V	7DAIT	B				
LSD (P=.05)								15.26	8.82	2.79	4.37
Standard Deviation								8.71	5.04	1.59	2.49
CV								12.61	9.81	76.35	2.59

Means followed by same letter do not significantly differ (P=.05, LSD)

ET-751 HARVEST AID EVALUATION

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON DEFOL PERCENT 10/13/01	COTTON DESSIC PERCENT 10/13/01	COTTON TER-REG 1-5 sca 10/19/01	COTTON BAS-REG 1-5 sca 10/19/01
1	UNTREATED							41.7 e	58.3 a	0 a	2.3 b
1	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
1	INDUCE		L	0.25	% V/V	7DAT	B				
2	ET-751	0.2	EC	1.2	G A/A	50-60%OB	A	81.7 d	18.3 b	0 a	2.3 b
2	COC		L	1	% V/V	50-60%OB	A				
2	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
2	INDUCE		L	0.25	% V/V	7DAT	B				
3	ET-751	0.2	EC	1	G A/A	50-60%OB	A	88.3 c	11.7 c	0 a	1 c
3	GINSTAR	1.5	EC	0.05	LB A/A	50-60%OB	A				
3	COC		L	1	% V/V	50-60%OB	A				
3	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
3	INDUCE		L	0.25	% V/V	7DAT	B				
4	ET-751	0.2	EC	1	G A/A	50-60%OB	A	95 ab	5 de	0 a	2 b
4	PREP	6	EC	1	LB A/A	50-60%OB	A				
4	COC		L	1	% V/V	50-60%OB	A				
4	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
4	INDUCE		L	0.25	% V/V	7DAT	B				
5	ET-751	0.2	EC	1	G A/A	50-60%OB	A	97 ab	3 de	0 a	2 b
5	COTTON QUIK	2.28	EC	1	LB A/A	50-60%OB	A				
5	COC		L	1	% V/V	50-60%OB	A				
5	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
5	INDUCE		L	0.25	% V/V	7DAT	B				
6	ET-751	0.2	EC	1	G A/A	50-60%OB	A	93.3 bc	6.7 cd	0 a	3 a
6	FINISH	6	EC	1	LB A/A	50-60%OB	A				
6	COC		L	1	% V/V	50-60%OB	A				
6	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
6	INDUCE		L	0.25	% V/V	7DAT	B				
7	GINSTAR	1.5	EC	0.076	LB A/A	50-60%OB	A	99.3 a	0.7 e	0 a	0 d
7	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
7	INDUCE		L	0.25	% V/V	7DAT	B				
8	DEF	6	EC	0.75	LB A/A	50-60%OB	A	98 ab	2 de	0 a	3 a
8	PREP	6	EC	1	LB A/A	50-60%OB	A				
8	CYCLONE MAX	3	EC	0.5	LB A/A	7DAT	B				
8	INDUCE		L	0.25	% V/V	7DAT	B				
LSD (P=.05)								5.2	5.2	0	0.52
Standard Deviation								2.97	2.97	0	0.3
CV								3.42	22.46	0	15.26

Means followed by same letter do not significantly differ (P=.05, LSD)

ET-751 HARVEST AID EVALUATION

NICHINO AMERICA

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	9/28/01	10/7/01
Time of Day:	10:30 AM	11:00 AM
Application Method:	SPRAY	SPRAY
Application Timing:	50%OPEN	8 DAIT
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	76 F	58 F
% Relative Humidity:	40	60
Wind Velocity, Unit:	8 MPH	8 MPH
Soil Temp., Unit:	80 F	60 F
Soil Moisture:	ADEQUATE	ADEQUATE
% Cloud Cover:	5	0

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD 6000	JD 6000
Operating Pressure:	58 PSI	58 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
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, Unit:	15 GPA	15 GPA
Propellant:	CO2	CO2

EVALUATION OF A NEW FINISH FORMULATION

AVENTIS

TRIAL ID:	OSUHA0101	**LOCATION:**	Winsett farm
VARIETY:	ST 4892 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	36r x 1320'	**REPLICATIONS:**	2

Project Summary:

This large-plot demonstration was established in order to compare the effectiveness of a new formulation of Finish to the currently marketed formulation. No boll opening or defoliation differences were observed from any treatments at any of the three observation dates. All treatments provided excellent boll opening and defoliation.

Crop Code							COTTON	COTTON	COTTON	COTTON
Rating Data Type							OPENBOLL	DEFOL	OPENBOLL	DEFOL
Rating Unit							PERCENT	PERCENT	PERCENT	PERCENT
Rating Date							10/17/01	10/17/01	10/19/01	10/19/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	FINISH	6	L	2	PT/A	70%OPEN	A	90 a	85 a	94 a	95 a
1	INDUCE		L	0.25	% V/V	70%OPEN	A				
2	FINISH	6	L	1	PT/A	70%OPEN	A	85 a	85 a	90 a	95 a
2	INDUCE		L	0.25	% V/V	70%OPEN	A				
3	NEW FINISH	6	EC	1	PT/A	70%OPEN	A	85 a	85 a	90 a	95 a
3	INDUCE		L	0.25	% V/V	70%OPEN	A				
4	FINISH	6	L	1	PT/A	70%OPEN	A	90 a	85 a	95 a	95 a
4	ETHEPHON	6	EC	0.5	PT/A	70%OPEN	A				
4	INDUCE		L	0.25	% V/V	70%OPEN	A				
LSD (P=.05)								18.37	0	12.93	0
Standard Deviation								5.77	0	4.06	0
CV								6.6	0	4.4	0

Means followed by same letter do not significantly differ (P=.05, LSD)

EVALUATION OF A NEW FINISH FORMULATION

AVENTIS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/22/01	COTTON DEFOL PERCENT 10/22/01
1	FINISH	6	L	2	PT/A	70%OPEN	A	100 a	98 a
1	INDUCE		L	0.25	% V/V	70%OPEN	A		
2	FINISH	6	L	1	PT/A	70%OPEN	A	100 a	98 a
2	INDUCE		L	0.25	% V/V	70%OPEN	A		
3	NEW FINISH	6	EC	1	PT/A	70%OPEN	A	100 a	98 a
3	INDUCE		L	0.25	% V/V	70%OPEN	A		
4	FINISH	6	L	1	PT/A	70%OPEN	A	100 a	98 a
4	ETHEPHON	6	EC	0.5	PT/A	70%OPEN	A		
4	INDUCE		L	0.25	% V/V	70%OPEN	A		
LSD (P=.05)								0	0
Standard Deviation								0	0
CV								0	0

Means followed by same letter do not significantly differ (P=.05, LSD)

APPLICATION DESCRIPTION	
	A
Application Date:	10/12/01
Time of Day:	10:00 AM
Application Method:	SPRAY
Application Timing:	70%OPEN
Applic. Placement:	BROADCAST
Air Temp., Unit:	72 F
% Relative Humidity:	18
Wind Velocity, Unit:	4 MPH
Soil Temp., Unit:	80 F
Soil Moisture:	DRY
% Cloud Cover:	0

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD 6500
Operating Pressure:	70 PSI
Nozzle Type:	HARDI FF
Nozzle Size:	4110-14
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	4 MPH
Carrier:	WATER

Spray Volume, Unit:	13 GPA

FINISH HARVEST AID PROGRAMS IN JACKSON COUNTY

OSU

TRIAL ID:	OSUHA0102	**LOCATION:**	Wallace Farm
VARIETY:	ST 4892 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	36r x 1320'	**REPLICATIONS:**	2

Project Summary:

A harvest aid demonstration was established on the Pat Wallace farm which highlighted the effectiveness of Finish harvest aid programs for irrigated cotton in Jackson County, Oklahoma. Seven days after application, there were no noticeable differences in defoliation, however, there was a an obvious difference in the percent open bolls. Plots where the higher rate (1.3 pt/a) of Finish was applied were noticeably more open. Random boll counts reflected the visual difference as well. Three boll counts were taken from each plot and then averaged. Differences in desiccation also existed at 7 days after treatment. Cotton leaves were more desiccated in the plots which received Finish plus Aim. Plots were harvested soon after the 7 day observation, thus no other data was collected.

Crop						COTTON	COTTON	COTTON
Rating Data Type						OPENBOLL	DEFOL	DESSIC
Rating Unit						PERCENT	PERCENT	PERCENT
Rating Date						10/1/01	10/1/01	10/1/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	FINISH	6	L	1	PT/A	70%OPEN	A	90 b	70 a	30 a
1	AIM	40	DF	0.67	OZ/A	70%OPEN	A			
1	COC		L	1	% V/V	70%OPEN	A			
2	FINISH	6	L	1	PT/A	70%OPEN	A	90 b	70 a	17.5 b
2	DEF	6	EC	1	PT/A	70%OPEN	A			
2	NIS (INDUCE)		L	0.5	% V/V	70%OPEN	A			
3	FINISH	6	L	1	PT/A	70%OPEN	A	90 b	70 a	15 b
3	GINSTAR	1.5	EC	6	OZ/A	70%OPEN	A			
3	ACCUQUEST		L	2	QT/100 GAL	70%OPEN	A			
4	FINISH	6	L	1.3	PT/A	70%OPEN	A	100 a	70 a	10 c
4	NIS (INDUCE)		L	0.5	% V/V	70%OPEN	A			
5	FINISH	6	L	1	PT/A	70%OPEN	A	90 b	70 a	10 c
5	GINSTAR	1.5	EC	4	OZ/A	70%OPEN	A			
LSD (P=.05)								0	0	4.07
Standard Deviation								0	0	1.58
CV								0	0	9.58
Means followed by same letter do not significantly differ (P=.05, LSD)										

FINISH HARVEST AID PROGRAMS IN JACKSON COUNTY

OSU

APPLICATION DESCRIPTION	
	A
Application Date:	9/24/01
Time of Day:	1:00 PM
Application Method:	SPRAY
Application Timing:	70%OPEN
Applic. Placement:	BROADCAST
Air Temp., Unit:	64 F
% Relative Humidity:	45
Wind Velocity, Unit:	5 MPH
Soil Temp., Unit:	80 F
% Cloud Cover:	0

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD 6500
Operating Pressure:	70 PSI
Nozzle Type:	HARDI FF
Nozzle Size:	4110-14
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Boom Length, Unit:	60 FT
Ground Speed, Unit:	5.5 MPH
Carrier:	WATER
Spray Volume, Unit:	12 GPA

AIM HARVEST AID DEMONSTRATION IN DRYLAND COTTON

OSU

TRIAL ID:	OSUHA0103	**LOCATION:**	Johnson Farm
VARIETY:	PM 2326 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	36r x 1100'		

Project Summary:

This dryland harvest aid demonstration was established to evlauate two popular dryland treatment options (Aim plus Cyclone Max vs. Cyclone Max alone) for Oklahoma cotton. An additional two treatments were added for comparison. Seven days after application, Cotton Quik plus Ginstar and Cyclone Max alone provided the greatest amount of defoliation. Open boll differences were slight. Two weeks after treatment, greater defoliation was provided by Cyclone Max alone compared to Aim plus Cyclone.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON DEFOL PERCENT 10/8/01	COTTON DESSIC PERCENT 10/8/01	COTTON OPENBOLL PERCENT 10/8/01
	Crop							COTTON	COTTON	COTTON
	Rating Data Type							DEFOL	DESSIC	OPENBOLL
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							10/8/01	10/8/01	10/8/01
1	COTTON QUIK	2.28	EC	3	PT/A	85% OPEN	A	85	10	80
1	GINSTAR	1.5	EC	3	OZ/A	85% OPEN	A			
1	INDUCE		L	0.25	% V/V	85% OPEN	A			
2	AIM	40	DF	0.67	OZ/A	85% OPEN	A	65	20	80
2	SUPER BOLL	6	EC	1	PT/A	85% OPEN	A			
2	CROP OIL CONCENTRATE		L	1	% V/V	85% OPEN	A			
3	AIM	40	DF	0.67	OZ/A	85% OPEN	A	35	35	70
3	CYCLONE MAX	3	EC	6	OZ/A	85% OPEN	A			
3	CROP OIL CONCENTRATE		L	1	% V/V	85% OPEN	A			
4	CYCLONE MAX	3	EC	21	OZ/A	85% OPEN	A	70	10	70
4	INDUCE		L	0.25	% V/V	85% OPEN	A			

AIM HARVEST AID DEMONSTRATION IN DRYLAND COTTON

OSU

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON DEFOL PERCENT 10/15/01	COTTON DESSIC PERCENT 10/15/01	COTTON OPENBOLL PERCENT 10/15/01
	Crop							COTTON	COTTON	COTTON
	Rating Data Type							DEFOL	DESSIC	OPENBOLL
	Rating Unit							PERCENT	PERCENT	PERCENT
	Rating Date							10/15/01	10/15/01	10/15/01
1	COTTON QUIK	2.28	EC	3	PT/A	85% OPEN	A	90	10	90
1	GINSTAR	1.5	EC	3	OZ/A	85% OPEN	A			
1	INDUCE		L	0.25	% V/V	85% OPEN	A			
2	AIM	40	DF	0.67	OZ/A	85% OPEN	A	70	15	90
2	SUPER BOLL	6	EC	1	PT/A	85% OPEN	A			
2	CROP OIL CONCENTRATE		L	1	% V/V	85% OPEN	A			
3	AIM	40	DF	0.67	OZ/A	85% OPEN	A	60	20	80
3	CYCLONE MAX	3	EC	6	OZ/A	85% OPEN	A			
3	CROP OIL CONCENTRATE		L	1	% V/V	85% OPEN	A			
4	CYCLONE MAX	3	EC	21	OZ/A	85% OPEN	A	80	10	80
4	INDUCE		L	0.25	% V/V	85% OPEN	A			

APPLICATION DESCRIPTION	
	A
Application Date:	10/2/01
Time of Day:	1:00 PM
Application Method:	SPRAY
Application Timing:	80%OPEN
Applic. Placement:	BROADCAST
Air Temp., Unit:	76 F
% Relative Humidity:	28
Wind Velocity, Unit:	8 MPH
Soil Temp., Unit:	80 F
Soil Moisture:	DRY
% Cloud Cover:	0

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	JD 6500
Operating Pressure:	70 PSI
Nozzle Type:	HARDI FF
Nozzle Size:	4110-14
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	4 MPH
Carrier:	WATER
Spray Volume, Unit:	13 GPA

LINTPLUS HARVEST AID EVALUATION

UNIROYAL

TRIAL ID:	UNIHA0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
RATE:	12 lbs/acre	**SOIL TYPE:**	Tillman Hollister Clay Loam
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3

Project Summary:

The objective of this trial was to evaluate the effectiveness of LintPlus for harvest aid performance in Oklahoma cotton. LintPlus was applied between 10-30% open bolls and then followed up with Finish, Leafless, or Cyclone Max at 55% open bolls in comparison to the standard Def plus Prep treatment applied at 65% open bolls. The manufacturer suggested use rate is 20 oz/acre. Due to an error in data entry, 30 oz/acre was applied instead of the normal use rate. Approximately one week after the last application, only combinations of LintPlus with Finish or Cyclone Max improved boll opening compared to the untreated. Similarly, these two treatments provided the greatest amount of defoliation observed at this time. This trend continued through the later observation as well. Little difference was observed in regrowth between any treatments.

Crop							COTTON	COTTON	COTTON
Rating Data Type							OPENBOLL	DEFOL	DESSIC
Rating Unit							PERCENT	PERCENT	PERCENT
Rating Date							10/4/01	10/4/01	10/4/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	UNTREATED CHECK							54.5 b	0 e	0 c
2	LINTPLUS		L	30	OZ/A	15% OPEN	A	77 a	82.5 b	2.5 bc
2	FINISH	6	L	32	OZ/A	55% OPEN	B			
3	LINTPLUS		L	30	OZ/A	15% OPEN	A	65.5 ab	37.5 c	5 ab
3	LEAFLESS		L	8	OZ/A	55% OPEN	B			
4	DEF	6	EC	16	OZ/A	65% OPEN	C	65.5 ab	31.3 d	0 c
4	PREP	6	EC	16	OZ/A	65% OPEN	C			
5	LINTPLUS		L	30	OZ/A	15% OPEN	A	74.5 a	87.5 a	7.5 a
5	CYCLONE MAX	3	EC	13	OZ/A	55% OPEN	B			
LSD (P=.05)								15.08	3.72	2.81
Standard Deviation								9.79	2.42	1.83
CV								14.52	5.06	60.86
Means followed by same letter do not significantly differ (P=.05, LSD)										

LINTPLUS HARVEST AID EVALUATION

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT 10/12/01	COTTON DEFOL PERCENT 10/12/01	COTTON DESSIC PERCENT 10/12/01
1	UNTREATED CHECK							68.5 b	1.3 d	0 b
2	LINTPLUS		L	30	OZ/A	15% OPEN	A	85.5 a	87.5 a	7.5 a
2	FINISH	6	L	32	OZ/A	55% OPEN	B			
3	LINTPLUS		L	30	OZ/A	15% OPEN	A	75.5 b	57.5 c	1.3 ab
3	LEAFLESS		L	8	OZ/A	55% OPEN	B			
4	DEF	6	EC	16	OZ/A	65% OPEN	C	72.5 b	68.8 b	0 b
4	PREP	6	EC	16	OZ/A	65% OPEN	C			
5	LINTPLUS		L	30	OZ/A	15% OPEN	A	86.5 a	90 a	5 ab
5	CYCLONE MAX	3	EC	13	OZ/A	55% OPEN	B			
LSD (P=.05)								8.84	4.61	6.45
Standard Deviation								5.74	2.99	4.18
CV								7.39	4.91	152.12

Means followed by same letter do not significantly differ (P=.05, LSD)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	TERM. REGR. 1-5 SCAL 10/19/01	BASAL REGR. 1-5 SCAL 10/19/01
1	UNTREATED CHECK							0 a	0 c
2	LINTPLUS		L	30	OZ/A	15% OPEN	A	0 a	2.5 a
2	FINISH	6	L	32	OZ/A	55% OPEN	B		
3	LINTPLUS		L	30	OZ/A	15% OPEN	A	0 a	1.5 b
3	LEAFLESS		L	8	OZ/A	55% OPEN	B		
4	DEF	6	EC	16	OZ/A	65% OPEN	C	0 a	2 ab
4	PREP	6	EC	16	OZ/A	65% OPEN	C		
5	LINTPLUS		L	30	OZ/A	15% OPEN	A	0 a	2 ab
5	CYCLONE MAX	3	EC	13	OZ/A	55% OPEN	B		
LSD (P=.05)								0	0.56
Standard Deviation								0	0.37
CV								0	22.82

Means followed by same letter do not significantly differ (P=.05, LSD)

LINTPLUS HARVEST AID EVALUATION

UNIROYAL

APPLICATION DESCRIPTION			
	A	**B**	**C**
Application Date:	9/17/01	9/25/01	9/28/01
Time of Day:	10:30 AM	10:45 AM	10:30 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	30% OPEN	50% OPEN	60% OPEN
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	77 F	65 F	70 D
% Relative Humidity:	67	38	40
Wind Velocity, Unit:	6.4 MPH	2 MPH	8 MPH
Soil Temp., Unit:	74 F	63 F	78 F
Soil Moisture:	GOOD	ADEQUATE	MARGINAL
% Cloud Cover:	98	0	0

APPLICATION EQUIPMENT			
	A	**B**	**C**
Appl. Equipment:	JD 6000	JD 6000	JD 6000
Operating Pressure:	58 PSI	58 PSI	58 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	2	2	2
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA
Propellant:	CO2	CO2	CO2

EFFECTS OF TEMIK ON GROWTH AND DEVELOPMENT OF COTTON

AVENTIS

TRIAL ID:	AVEIF0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 16TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 1100'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to determine the agronomic benefits of applying Temik insecticide in-furrow at planting. Temik is used primarily for early-season thrips control in cotton, however, enhanced growth, development and maturity are observed at times. No differences were observed in stand, vigor, or # blooms/meter. Lint yields from plots treated with 4 lbs/acre were equal to the untreated and greater than those produced by the plots which received 8 lbs/acre. There were no differences between treatments in micronaire,strength, or uniformity, however, fiber length was greater from plots treated with the 8 lb/acre rate of Temik compared to the untreated.

Crop							COTTON	COTTON	COTTON	SEEDCOTN
Rating Data Type							STAND CT	VIGOR	BLOOM CT	YIELD
Rating Unit							#/METER	1-10 SCA	#/METER	LBS/ACRE
Rating Date							6/7/01		7/26/01	10/19/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED							14 a	4.3 a	23 a	3120 a
2	TEMIK	15	G	4	LB/A	ATPLANT	A	16.3 a	4.3 a	24.3 a	3165 a
3	TEMIK	15	G	8	LB/A	ATPLANT	A	15 a	4.7 a	24 a	3190 a
LSD (P=.05)								7.72	1.51	4.5	91.7
Standard Deviation								3.41	0.67	1.99	40.5
CV								22.55	15	8.35	1.28
Means followed by same letter do not significantly differ (P=.05, LSD)											

Crop							GIN	LINT	FIBER	FIBER
Rating Data Type							TURNOUT	YIELD	DATA	DATA
Rating Unit							PERCENT	LBS/ACRE	MIC	LENGTH
Rating Date							10/19/01	10/19/01	1/10/01	1/10/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED							38.43 a	1199 a	4.5 a	1.193 b
2	TEMIK	15	G	4	LB/A	ATPLANT	A	38.23 a	1210 a	4.6 a	1.203 ab
3	TEMIK	15	G	8	LB/A	ATPLANT	A	36.27 b	1157 b	4.3 a	1.22 a
LSD (P=.05)								1.726	34.8	0.358	0.0239
Standard Deviation								0.761	15.4	0.158	0.0106
CV								2.02	1.29	3.54	0.88
Means followed by same letter do not significantly differ (P=.05, LSD)											

EFFECTS OF TEMIK ON GROWTH AND DEVELOPMENT OF COTTON

AVENTIS

Crop							FIBER	FIBER
Rating Data Type							DATA	DATA
Rating Unit							STRENGTH	UNIFORM
Rating Date							1/10/01	1/10/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	UNTREATED							30.73 a 83.43 a
2	TEMIK	15	G	4	LB/A	ATPLANT	A	30.87 a 84.43 a
3	TEMIK	15	G	8	LB/A	ATPLANT	A	31.47 a 83.77 a
LSD (P=.05)								1.491 1.349
Standard Deviation								0.658 0.595
CV								2.12 0.71

Means followed by same letter do not significantly differ (P=.05, LSD)

CROP TOLERANCE OF PROWL VS. TREFLAN

BASF

TRIAL ID:	BASCT0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 17TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to determine the differential tolerance of cotton to Prowl versus Treflan herbicides. Both herbicides were applied at manufacturer suggest use rates as well as 1.5 and 2 times the normal rate of each. Stand counts, cotton height measurements, stem diameters, lint yields, and fiber quality analysis reflected no differences between treatments of Prowl and Treflan herbicides.

Crop							COTTON	COTTON	COTTON	SEEDCOTN	GIN
Rating Data Type							STAND CT	AVG HT	STEM DIA	YIELD	TURNOUT
Rating Unit							#/METER	INCHES	1/10 IN.	LBS/ACRE	PERCENT
Rating Date							6/7/01	7/10/01	7/10/01	10/29/01	12/7/02
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	PROWL	3.3	EC	2.4	PT/A	PPI	A	13 a	14.47 a	0.73 a	2904 a	33.77 ab
2	PROWL	3.3	EC	3.6	PT/A	PPI	A	10.3 a	15.27 a	0.8 a	3093 a	34.1 a
3	PROWL	3.3	EC	4.8	PT/A	PPI	A	9.7 a	14.93 a	0.77 a	2798 a	33.1 b
4	TREFLAN	4	L	2	PT/A	PPI	A	10.3 a	15.07 a	0.73 a	2866 a	33.57 ab
5	TREFLAN	4	L	3	PT/A	PPI	A	12.7 a	15.6 a	0.73 a	3220 a	34.1 a
6	TREFLAN	4	L	4	PT/A	PPI	A	11 a	15.7 a	0.77 a	3032 a	33.47 ab
7	UNTREATED							10.7 a	14.73 a	0.73 a	2804 a	33.27 b
LSD (P=.05)								5.3	1.414	0.188	663.908	0.709
Standard Deviation								2.98	0.795	0.105	373.219	0.398
CV								26.87	5.26	14.01	12.55	1.18

Means followed by same letter do not significantly differ (P=.05, LSD)

CROP TOLERANCE OF PROWL VS. TREFLAN

BASF

Crop							LINT	FIBER	FIBER	FIBER	FIBER
Rating Data Type							YIELD	DATA	DATA	DATA	DATA
Rating Unit							LBS/ACRE	MIC	LENGTH	STRENGTH	UNIFORM
Rating Date							12/7/02	1/10/02	1/10/02	1/10/02	1/10/02
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	PROWL	3.3	EC	2.4	PT/A	PPI	A	981 a	4.57 a	1.187 a	29.53 a	84 a
2	PROWL	3.3	EC	3.6	PT/A	PPI	A	1055 a	4.83 a	1.193 a	29.43 a	83.9 a
3	PROWL	3.3	EC	4.8	PT/A	PPI	A	926 a	4.9 a	1.19 a	29.3 a	83.67 a
4	TREFLAN	4	L	2	PT/A	PPI	A	962 a	4.7 a	1.177 a	29.6 a	83.4 a
5	TREFLAN	4	L	3	PT/A	PPI	A	1098 a	4.8 a	1.193 a	29.37 a	83.77 a
6	TREFLAN	4	L	4	PT/A	PPI	A	1052 a	4.83 a	1.2 a	29.87 a	84.43 a
7	UNTREATED							933 a	4.83 a	1.18 a	30 a	83.97 a
LSD (P=.05)								233.5	0.372	0.0275	1.547	1.622
Standard Deviation								131.3	0.209	0.0155	0.87	0.912
CV								13.11	4.38	1.3	2.94	1.09

Means followed by same letter do not significantly differ (P=.05, LSD)

CROP TOLERANCE OF PROWL VS. TREFLAN

BASF

APPLICATION DESCRIPTION	
	A
Application Date:	4/3/01
Time of Day:	10:15 AM
Application Method:	SPRAY
Application Timing:	PPI
Applic. Placement:	BROADCAST
Air Temp., Unit:	73 F
% Relative Humidity:	60
Wind Velocity, Unit:	5 MPH
Soil Temp., Unit:	65 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	80

APPLICATION EQUIPMENT	
	A
Appl. Equipment:	B-BUGGY
Operating Pressure:	30
Nozzle Type:	TJFLATFAN
Nozzle Size:	80015 VS
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	4 MPH
Incorporation Equip.:	RC*
Hours to Incorp.:	0.5
Incorp. Depth, Unit:	2 IN
Carrier:	WATER
Spray Volume, Unit:	10 GPA
Propellant:	CO2

OUTLOOK HERBICIDE TOLERANCE IN IRRIGATED COTTON

BASF

TRIAL ID:	BASCT0102	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 17TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

Outlook is a newly emerging herbicide to be marketed by BASF for use in cotton. The objective of this trial was to determine the tolerance of cotton to preemergence and postemergence applications of Outlook herbicide in a Roundup Ready cotton system. Although some differences existed in cotton stand counts, no logical trends were identified. Injury ratings were taken 4 times throughout the season following applications. No cotton injury was experienced after the application of any treatment. Likewise, there were no differences in cotton lint yield, or fiber data analysis from untreated and treated plots.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON STAND CT #/METER 6/7/01	COTTON INJURY PERCENT 6/8/01	COTTON INJURY PERCENT 6/15/01
1	OUTLOOK	6	EC	0.5	LB A/A	PRE	A	10.3 ab	0 a	0 a
2	OUTLOOK	6	EC	0.75	LB A/A	PRE	A	9.3 b	0 a	0 a
3	OUTLOOK	6	EC	1	LB A/A	PRE	A	9 b	0 a	0 a
4	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	11.7 ab	0 a	0 a
5	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	11 ab	0 a	0 a
5	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
6	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	11 ab	0 a	0 a
7	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	11 ab	0 a	0 a
7	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
8	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	10 b	0 a	0 a
9	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	10 b	0 a	0 a
9	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
10	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	10.3 ab	0 a	0 a
11	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	8.7 b	0 a	0 a
11	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
12	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	10.3 ab	0 a	0 a

Means followed by same letter do not significantly differ (P=.05, LSD)

OUTLOOK HERBICIDE TOLERANCE IN IRRIGATED COTTON

BASF

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON STAND CT #/METER 6/7/01	COTTON INJURY PERCENT 6/8/01	COTTON INJURY PERCENT 6/15/01
13	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	13.7 a	0 a	0 a
13	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
14	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	11 ab	0 a	0 a
15	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	10 b	0 a	0 a
15	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
16	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	11.7 ab	0 a	0 a
16	STAPLE	85	WP	1.2	OZ/A	EP-3-4LF	C			
17	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	10 b	0 a	0 a
17	DUAL II MAGNUM	7.6	EC	1	LB A/A	EP-3-4LF	C			
18	UNTREATED							9.3 b	0 a	0 a
LSD (P=.05)								3.66	0	0
Standard Deviation								2.2	0	0
CV								21	0	0

Means followed by same letter do not significantly differ (P=.05, LSD)

Crop							COTTON	COTTON	SEEDCOTN
Rating Data Type							INJURY	INJURY	YIELD
Rating Unit							PERCENT	PERCENT	LBS/PLOT
Rating Date							6/29/01	7/9/01	10/29/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	OUTLOOK	6	EC	0.5	LB A/A	PRE	A	0 a	0 a	18.23 a
2	OUTLOOK	6	EC	0.75	LB A/A	PRE	A	0 a	0 a	19.63 a
3	OUTLOOK	6	EC	1	LB A/A	PRE	A	0 a	0 a	20.7 a
4	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	0 a	0 a	19.47 a
5	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	0 a	0 a	21.17 a
5	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
6	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	0 a	0 a	20.4 a
7	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	0 a	0 a	18.1 a
7	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
8	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	0 a	0 a	18.63 a
9	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	0 a	0 a	20.57 a
9	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
10	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	0 a	0 a	21.63 a
11	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	0 a	0 a	20.1 a
11	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
12	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	0 a	0 a	21.13 a
13	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	0 a	0 a	19.37 a
13	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
14	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	0 a	0 a	18.57 a
15	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	0 a	0 a	19.97 a
15	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
16	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	0 a	0 a	19.6 a
16	STAPLE	85	WP	1.2	OZ/A	EP-3-4LF	C			
17	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	0 a	0 a	19.83 a
17	DUAL II MAGNUM	7.6	EC	1	LB A/A	EP-3-4LF	C			
18	UNTREATED							0 a	0 a	20.93 a
LSD (P=.05)								0	0	3.807
Standard Deviation								0	0	2.284
CV								0	0	11.48
Means followed by same letter do not significantly differ (P=.05, LSD)										

Crop							GIN	LINT	FIBER
Rating Data Type							TURNOUT	YIELD	DATA
Rating Unit							PERCENT	LBS/ACRE	MIC
Rating Date							10/29/01	12/7/01	1/10/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	OUTLOOK	6	EC	0.5	LB A/A	PRE	A	32.7 k	781 a	4.9
2	OUTLOOK	6	EC	0.75	LB A/A	PRE	A	33.4 hi	859 a	4.9
3	OUTLOOK	6	EC	1	LB A/A	PRE	A	33.4 hi	906 a	4.8
4	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	33.6 fg	857 a	5.2
5	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	33.9 cd	940 a	5.5
5	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
6	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	34 c	909 a	5.3
7	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	34 c	806 a	5
7	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
8	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	33.9 cd	827 a	5
9	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	34.33 a	925 a	5.2
9	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
10	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	33.3 ij	944 a	5
11	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	33.5 gh	882 a	5.1
11	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
12	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	33.9 cd	939 a	5.1
13	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	33.4 hi	847 a	5.3
13	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
14	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	33.2 j	808 a	5.1
15	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	34.2 b	895 a	5
15	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
16	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	33.7 ef	865 a	5.2
16	STAPLE	85	WP	1.2	OZ/A	EP-3-4LF	C			
17	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	33.8 de	878 a	4.7
17	DUAL II MAGNUM	7.6	EC	1	LB A/A	EP-3-4LF	C			
18	UNTREATED							34.4 a	943 a	5.2
LSD (P=.05)								0.115	167.4	.
Standard Deviation								0.069	100.4	.
CV								0.2	11.43	.
Means followed by same letter do not significantly differ (P=.05, LSD)										

Crop							FIBER	FIBER	FIBER
Rating Data Type							DATA	DATA	DATA
Rating Unit							LENGTH	STRENGTH	UNIFORM
Rating Date							1/10/01	1/10/01	1/10/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	OUTLOOK	6	EC	0.5	LB A/A	PRE	A	1.17	28.7	82.5
2	OUTLOOK	6	EC	0.75	LB A/A	PRE	A	1.19	29.3	83.3
3	OUTLOOK	6	EC	1	LB A/A	PRE	A	1.2	29	85.2
4	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	1.19	29.5	85.6
5	OUTLOOK	6	EC	0.5	LB A/A	EP-COTYL	B	1.2	30.5	84.5
5	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
6	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	1.2	28.2	83.3
7	OUTLOOK	6	EC	0.75	LB A/A	EP-COTYL	B	1.18	29.4	83
7	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
8	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	1.19	29.2	82.5
9	OUTLOOK	6	EC	1	LB A/A	EP-COTYL	B	1.17	29.2	84.3
9	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-COTYL	B			
10	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	1.17	29.3	82.4
11	OUTLOOK	6	EC	0.5	LB A/A	EP-3-4LF	C	1.18	29.3	83.6
11	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
12	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	1.2	30.3	84.4
13	OUTLOOK	6	EC	0.75	LB A/A	EP-3-4LF	C	1.17	29	83.8
13	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
14	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	1.19	29.6	85
15	OUTLOOK	6	EC	1	LB A/A	EP-3-4LF	C	1.21	30.9	84.2
15	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C			
16	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	1.18	28.9	83.4
16	STAPLE	85	WP	1.2	OZ/A	EP-3-4LF	C			
17	ROUNDUP ULTRAMAX	3.7	SL	26	OZ/A	EP-3-4LF	C	1.18	28.7	82.2
17	DUAL II MAGNUM	7.6	EC	1	LB A/A	EP-3-4LF	C			
18	UNTREATED							1.18	29.2	85.4
LSD (P=.05)								.	.	.
Standard Deviation								.	.	.
CV								.	.	.
Means followed by same letter do not significantly differ (P=.05, LSD)										

OUTLOOK HERBICIDE TOLERANCE IN IRRIGATED COTTON

BASF

	APPLICATION DESCRIPTION		
	A	**B**	**C**
Application Date:	5/17/01	6/6/01	6/15/01
Time of Day:	11:00 AM	11:45 AM	6:30 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREEMERGE	EP C-1LF	EP 3-4LF
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	81 F	95 F	91 F
% Relative Humidity:	75	50	15
Wind Velocity, Unit:	9 MPH	7 MPH	7 MPH
Soil Moisture:	GOOD	MARGINAL	DRY
% Cloud Cover:	70	13	0

	APPLICATION EQUIPMENT		
	A	**B**	**C**
Appl. Equipment:	JD HI-BOY	JD HI-BOY	JD HI-BOY
Operating Pressure:	28 PSI	28 PSI	28 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015 VS	80015 VS	80015 VS
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	2		
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	10 GPA
Propellant:	CO2	CO2	CO2

COMPARISON OF NEW GROWTH REGULATOR TO PIX PLUS

BASF

TRIAL ID:	BASCT0102	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 17TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 300'	**REPLICATIONS:**	2
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to compare the effectiveness of BAS 130 (a new growth regulator) to Pix Plus. Early-season open boll counts were taken to identify any differences in maturity that may exist after treatment. Virtually no differences were observed in open boll percentages. The highest yields were produced from plots receiving sequential 8 oz/acre applications of Pix Plus or BAS 130 applied at 4 oz/acre followed by 8 oz/acre. No real differences were observed in fiber quality.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON OPENBOLL PERCENT	COTTON SEEDCOTN LBS/ACRE	GIN TURNOUT PERCENT	LINT YIELD LBS/ACRE
	Crop										
	Rating Data Type										
	Rating Unit										
	Rating Date							9/18/01	10/17/01	10/17/01	12/4/01
1	UNTREATED							19 ab	2853 c	38.25 a	1091 b
2	PIX PLUS	L		4	OZ/A	MATCH	A	33 a	3038 bc	38.2 ab	1160 ab
2	PIIX PLUS	L		8	OZ/A	14 DAIT	B				
3	PIX PLUS	L		6	OZ/A	MATCH	A	18 b	3263 ab	36.95 c	1205 ab
3	PIIX PLUS	L		8	OZ/A	14 DAIT	B				
4	PIX PLUS	L		8	OZ/A	MATCH	A	24 ab	3398 a	37.2 abc	1264 a
4	PIIX PLUS	L		8	OZ/A	14 DAIT	B				
5	BAS 130	L		4	OZ/A	MATCH	A	26 ab	3308 ab	37.3 abc	1234 a
5	BAS 130	L		8	OZ/A	14 DAIT	B				
6	BAS 130	L		6	OZ/A	MATCH	A	20 ab	3195 ab	37.55 abc	1199 ab
6	BAS 130	L		8	OZ/A	14 DAIT	B				
7	BAS 130	L		8	OZ/A	MATCH	A	21 ab	3218 ab	37.1 bc	1194 ab
7	BAS 130	L		8	OZ/A	14 DAIT	B				
	LSD (P=.05)							14.72	337.9	1.14	115.6
	Standard Deviation							6.38	146.5	0.494	50.1
	CV							27.75	4.61	1.32	4.21

Means followed by same letter do not significantly differ (P=.05, LSD)

COMPARISON OF NEW GROWTH REGULATOR TO PIX PLUS

BASF

Crop							FIBER	FIBER	FIBER	FIBER
Rating Data Type							DATA	DATA	DATA	DATA
Rating Unit							MIC	LENGTH	STRENGTH	UNIFORM
Rating Date							1/10/02	1/10/02	1/10/02	1/10/02
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED							4.9 a	1.185 a	32.85 cd	85.1 a
2	PIX PLUS	L		4	OZ/A	MATCH	A	4.85 a	1.18 a	34.15 ab	84.15 a
2	PIIX PLUS	L		8	OZ/A	14 DAIT	B				
3	PIX PLUS	L		6	OZ/A	MATCH	A	4.55 a	1.195 a	35.05 a	84.9 a
3	PIIX PLUS	L		8	OZ/A	14 DAIT	B				
4	PIX PLUS	L		8	OZ/A	MATCH	A	4.65 a	1.19 a	32.35 d	84.25 a
4	PIIX PLUS	L		8	OZ/A	14 DAIT	B				
5	BAS 130	L		4	OZ/A	MATCH	A	4.75 a	1.18 a	34.15 ab	84.1 a
5	BAS 130	L		8	OZ/A	14 DAIT	B				
6	BAS 130	L		6	OZ/A	MATCH	A	4.65 a	1.195 a	33.65 bc	84.15 a
6	BAS 130	L		8	OZ/A	14 DAIT	B				
7	BAS 130	L		8	OZ/A	MATCH	A	4.9 a	1.195 a	33.4 bcd	84.95 a
7	BAS 130	L		8	OZ/A	14 DAIT	B				
LSD (P=.05)								0.506	0.0416	1.244	1.101
Standard Deviation								0.219	0.018	0.54	0.477
CV								4.62	1.52	1.6	0.56

Means followed by same letter do not significantly differ (P=.05, LSD)

COMPARISON OF NEW GROWTH REGULATOR (BAS 130) TO PIX PLUS

BASF

APPLICATION DESCRIPTION		
	A	**B**
Application Date:	7/24/01	8/21/01
Time of Day:	12:00 PM	7:40 AM
Application Method:	SPRAY	SPRAY
Application Timing:	MIDBLOOM	LATEBLOOM
Applic. Placement:	BROADCAST	BROADCAST
Air Temp., Unit:	103 F	78 F
% Relative Humidity:	23	66
Wind Velocity, Unit:	3 MPH	4 MPH
Soil Temp., Unit:	103 F	80 F
Soil Moisture:	ADEQUATE	GOOD
% Cloud Cover:	5	40

APPLICATION EQUIPMENT		
	A	**B**
Appl. Equipment:	JD HIBOY	JD HIBOY
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
Nozzle Size:	80015 VS	80015 VS
Nozzle Spacing, Unit:	20 INCH	20 INCH
Nozzles/Row:	2	2
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA
Propellant:	CO2	CO2

EVALUATION OF MESSENGER FOR YIELD ENHANCEMENT

EDEN BIOSCIENCES

TRIAL ID:	EDEGR0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 17TH	**RATE:**	12 lbs/acre
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

A demonstration was initiated to determine the benefits of applications of Messenger postemergence over the top of irrigated cotton at the pinhead square stage and again at ½ grown boll stage. Yield and fiber quality analysis revealed no benefit from the applications of Messenger.

Crop						LINT	FIBER	FIBER	FIBER	FIBER
Rating Data Type						YIELD	DATA	DATA	DATA	DATA
Rating Unit						LBS/ACRE	MIC	LENGTH	STRENGTH	UNIFORM
Rating Date						12/12/01	1/10/01	1/10/01	1/10/01	1/10/01
Trt No.	Treatment Name	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED						883	5.5	1.17	28.9	84
2	MESSENGER	WP	2.25	OZ/A	PIN SQ	A	841	5.1	1.17	29.2	83.5
2	MESSENGER	WP	2.25	OZ/A	1/2 BOLL	B					

APPLICATION DESCRIPTION

	A	B
Application Date:	6/25/01	8/6/01
Time of Day:	2:30 PM	1:OO PM
Application Method:	SPRAY	SPRAY
Application Timing:	PINHEADSQ	1/2 BOLLS
Applic. Placement:	13"BAND	13"BAND
Air Temp., Unit:	93 F	101 F
% Relative Humidity:	31	31
Wind Velocity, Unit:	6 MPH	2 MPH
Soil Temp., Unit:	114 F	103 F
Soil Moisture:	DRY	ADEEQATE
% Cloud Cover:	30	5

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	JD HI-BOY	JD HI-BOY
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN
Nozzle Size:	8001EVS	8001EVS
Nozzle Spacing, Unit:	40 IN	40 IN
Nozzles/Row:	1	1
Band Width, Unit:	13 IN	13 IN
Ground Speed, Unit:	4 MPH	4 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA
Propellant:	CO2	CO2

IN-SEASON FERTILITY MANAGEMENT WITH FOLIAR APPLICATIONS OF CORON (HM 9826, 9870, 9309)

HELENA

TRIAL ID:	EDEGR0101	**LOCATION:**	OSUREC
VARIETY:	DP 451 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 17TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	4
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to determine the benefit of managing nitrogen and potassium levels in-season with foliar applications of Coron liquid fertilizer solutions. Weekly petiole samples were collected from each plot. Upon crushing, these samples were tested for petiole nitrates and potassium levels using Cardy meters. Applications of coron materials or feed grade urea were made based on predetermined cardy meter threshold levels. No statistical differences were observed between the nitrate or potassium readings taken from treated and untreated plots. Likewise there were no differences among the micronaire and uniformity readings from fiber analysis. However, fiber length was greatest from plots treated with Solubor at pinhead square followed by feed grade urea as needed according to cardy meter readings. Fiber strength was greater when plots were treated with foliar applications of Coron.

Crop							COTTON	COTTON	COTTON
Part Rated							PETIOL	PETIOL	PETIOL
Rating Data Type							NO3	K+	NO3
Rating Unit							PPM	PPM	PPM
Rating Date							6/26/01	6/26/01	7/2/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	2775 a	4725 b	3125 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	2600 a	4775 b	3000 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	2650 a	4725 b	3160 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	2775 a	5200 ab	3225 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							2500 a	5350 a	3042.5 a
LSD (P=.05)								345.96	561.74	296.01
Standard Deviation								224.54	364.58	192.12
CV								8.44	7.36	6.18

Means followed by same letter do not significantly differ (P=.05, LSD)

IN-SEASON FERTILITY MANAGEMENT WITH FOLIAR CORON

Crop							COTTON	COTTON	COTTON
Part Rated							PETIOL	PETIOL	PETIOL
Rating Data Type							K+	NO3	K+
Rating Unit							PPM	PPM	PPM
Rating Date							7/2/01	7/10/01	7/10/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	4082.5 b	3187.5 a	4865 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	4125 ab	3012.5 a	4847.5 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	4235 ab	3292.5 a	4730 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	4207.5 ab	3365 a	4887.5 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							4340 a	3130 a	4722.5 a
LSD (P=.05)								218.66	444.98	302.54
Standard Deviation								141.91	288.8	196.36
CV								3.38	9.03	4.08

Means followed by same letter do not significantly differ (P=.05, LSD)

Crop							COTTON	COTTON	COTTON
Part Rated							PETIOL	PETIOL	PETIOL
Rating Data Type							NO3	K+	NO3
Rating Unit							PPM	PPM	PPM
Rating Date							7/17/01	7/17/01	7/24/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	3392.5 ab	5472.5 a	1442.5 ab
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	3015 b	5357.5 a	1287.5 b
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	3227.5 ab	5422.5 a	1387.5 ab
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	3517.5 a	5295 a	1375 ab
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							3390 ab	5685 a	1490 a
LSD (P=.05)								498.94	401.57	184.8
Standard Deviation								323.82	260.63	119.94
CV								9.79	4.79	8.59

Means followed by same letter do not significantly differ (P=.05, LSD)

IN-SEASON FERTILITY MANAGEMENT WITH FOLIAR CORON

Crop							COTTON	COTTON	COTTON
Part Rated							PETIOL	PETIOL	PETIOL
Rating Data Type							K+	NO3	K+
Rating Unit							PPM	PPM	PPM
Rating Date							7/24/01	8/1/01	8/1/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	4445 a	2380 a	5150 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	4460 a	2090 a	5282.5 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	4307.5 a	2412.5 a	5182.5 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	4295 a	2597.5 a	5265 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							4307.5 a	2097.5 a	5217.5 a
LSD (P=.05)								351.06	893.52	756.39
Standard Deviation								227.85	579.91	490.91
CV								5.22	25.04	9.41

Means followed by same letter do not significantly differ (P=.05, LSD)

Crop							COTTON	COTTON	COTTON
Part Rated							PETIOL	PETIOL	PETIOL
Rating Data Type							NO3	K+	NO3
Rating Unit							PPM	PPM	PPM
Rating Date							8/7/01	8/7/01	8/15/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	1482.5 a	5962.5 a	1755 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	1265 a	5652.5 a	1500 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	1490 a	5282.5 a	1680 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	1750 a	5527.5 a	1880 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							1237.5 a	5907.5 a	1212.5 a
LSD (P=.05)								664.02	1169.79	919.51
Standard Deviation								430.96	759.21	596.78
CV								29.82	13.4	37.17

Means followed by same letter do not significantly differ (P=.05, LSD)

IN-SEASON FERTILITY MANAGEMENT WITH FOLIAR CORON

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON K+ PPM 8/15/01	SEEDCOTN YIELDS LBS/PLOT 10/30/01	SEEDCOTN YIELDS LBS/ACRE 10/30/01
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	4887.5 a	27.22 a	3566 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	5150 a	28.38 a	3717 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	5000 a	27.8 a	3642 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	4750 a	27.7 a	3629 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							5150 a	27.58 a	3612 a
LSD (P=.05)								747.52	1.679	220
Standard Deviation								485.15	1.09	142.8
CV								9.73	3.93	3.93

Means followed by same letter do not significantly differ (P=.05, LSD)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	GIN TURNOUT PERCENT 10/30/01	LINT YIELD LBS/ACRE 10/30/01	FIBER DATA MIC 12/14/01
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	36.32 a	1295 a	4 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	36.8 a	1368 a	3.97 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	36.8 a	1340 a	3.95 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	36.38 a	1320 a	3.92 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							36.9 a	1332 a	4.13 a
LSD (P=.05)								0.979	87.4	0.501
Standard Deviation								0.635	56.7	0.325
CV								1.73	4.26	8.15

Means followed by same letter do not significantly differ (P=.05, LSD)

IN-SEASON FERTILITY MANAGEMENT WITH FOLIAR CORON

Crop							FIBER	FIBER	FIBER
Rating Data Type							DATA	DATA	DATA
Rating Unit							LENGTH	STRENGTH	UNIFORM
Rating Date							12/14/01	12/14/01	12/14/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	1.205 ab	30.97 b	83.35 a
2	SOLUBOR	20	DF	0.2	LB/A	PINHEAD	A	1.22 a	31.42 ab	83.2 a
2	FEED GRADE UREA	46	DG	10	LB A/A	ASNEEDED	BCE			
3	HM9826-A(12-0-0-.5)	10.4	L	1	QT/A	PINHEAD	A	1.19 b	32.15 a	83.73 a
3	HM9870 (PHOS-CAL)		L	2	QT/A	MIDBLOOM	D			
3	HM9309 (25-0-0-.5)	10.1	L	1	GAL/A	ASNEEDED	BCD			
4	SOLUBOR	20	DF	1	LB/A	PINHEAD	A	1.185 b	31.03 b	83.05 a
4	WATER		L			ALL TIME	ABCDE			
5	UNTREATED							1.202 ab	31.08 b	83.68 a
LSD (P=.05)								0.0275	1.028	1.118
Standard Deviation								0.0179	0.667	0.726
CV								1.49	2.13	0.87

Means followed by same letter do not significantly differ (P=.05, LSD)

APPLICATION DESCRIPTION

	A	B	C	D	E
Application Date:	6/27/01	7/2/01	7/11/01	7/26/01	8/9/01
Time of Day:	10:35 AM	4:00 PM	9:00 AM	9:15 AM	8:30 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PINHEADSQ	MP 12 LF	EARLBLOOM	MIDBLOOM	LATEBLOOM
Applic. Placement:	13"BAND	13" BAND	13"BAND	13"BAND	13"BAND
Air Temp., Unit:	89 F	91 F	86.3 F	87 F	85.7 F
% Relative Humidity:	42	35	50	53	50
Wind Velocity, Unit:	9.2 MPH	4.7 MPH	4.5 MPH	3 MPH	2 MPH
Soil Temp., Unit:	100 F	87 F	92 F	85 F	88 F
Soil Moisture:	DRY	DRY	ADEQUATE	ADEQUATE	ADEQUATE
% Cloud Cover:	0	30	0	0	0

APPLICATION EQUIPMENT

	A	B	C	D	E
Appl. Equipment:	JD HI-BOY	JD HI-BOY	JD HI-BOY	JD HI-BOY	JD HI-BOY
Operating Pressure:	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	8001EVS	8001EVS	8001EVS	8001EVS	8001EVS
Nozzle Spacing, Unit:	40 IN	40 IN	40 IN	40 IN	40 IN
Nozzles/Row:	1	1	1	1	1
Band Width, Unit:	13 IN	13 IN	13 IN	13 IN	13 IN
Ground Speed, Unit:	4 MPH	4 MPH	4 MPH	4 MPH	4 MPH
Carrier:	WATER	WATER	WATER	WATER	WATER
Spray Volume, Unit:	10 GPA	10 GPA	10 GPA	10 GPA	10 GPA
Propellant:	C02	CO2	CO2	CO2	CO2

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE ON CONVENTIONAL COTTON

OSU

TRIAL ID:	OSUCT0101	**LOCATION:**	OSUREC
VARIETY:	DP 237 B	**ROW SPACING:**	40 inches
PLANTING DATE:	May 16TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	4
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

Roundup Ready cotton varieties are planted all across the cotton belt. In fact, over half of the cotton acreage planted in 2000 in the U.S. was Roundup Ready. Although the Roundup Ready system is excellent for weed control, the potential for drift onto non-Roundup Ready cotton varieties exists. The objective of this trial was to determine the effects of low rates of Glyphosate (simulated drift) on non-Roundup Ready cotton growth and yield. Five different rates of glyphosate (12.8 oz/a, 6.4 oz/a, 3.2 oz/a, 1.6 oz/a, and 0.8 oz/a which correspond to 0.5-0.03125 lb a/a) were applied at 4 different timings (cotyl-1 leaf, 4 leaf, pinhead square, and early bloom). This project was initiated at two locations in Texas as well as here in Altus, Oklahoma. Results of each location varied. The Oklahoma data is presented below. Visual injury ratings and plant heights were taken approximately 2 weeks after each application. The highest three rates applied at the 1 leaf and 4 leaf stages and the highest two rates applied at pinhead square caused visible injury. However, no application made at the early-bloom stage caused visible injury. Plants from each plot were mapped to determine the effects of each application on fruit retention. The amount of environmental stress sustained by this years crop made it difficult to determine the effects of each treatment on fruit retention. Thus, percent retention varied across rates and timings. Yield results did not correspond with visual injury ratings taken early in the season. The two center rows of each plot were harvested and fiber analysis was performed. Only the lowest and highest rates applied at the 1 leaf stage reduced lint yields significantly. Similarly, only the highest rate at the pinhead square application, and the highest two rates at the early-bloom timings reduced cotton lint yield compared to the untreated. Fiber analysis results showed a consistent reduction in micronaire compared to the untreated when the highest rate of glyphosate was applied at each cotton stage. No real differences were observed in length, strength or uniformity between treatments.

Crop								COTTON	COTTON	COTTON	COTTON
Rating Data Type								INJURY	PLANT HT	INJURY	PLANT HT
Rating Unit								PERCENT	CM	PERCENT	CM
Rating Date								6/20/01	6/20/01	6/28/01	6/28/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	UNTREATED							0 e	11.9 a-d	0 e	16.2 a-e
2	GLYPHOSATE	5	SL	0.03125	LB A/A	C-l LF	A	2.5 e	10.6 cde	5 e	14.3 e
3	GLYPHOSATE	5	SL	0.0625	LB A/A	C-l LF	A	3.8 e	10.8 b-e	10 e	14.7 de
4	GLYPHOSATE	5	SL	0.125	LB A/A	C-l LF	A	37.5 c	8.3 fgh	51.3 c	10.5 f
5	GLYPHOSATE	5	SL	0.25	LB A/A	C-l LF	A	70 b	7.35 gh	86.8 a	8.55 fg
6	GLYPHOSATE	5	SL	0.5	LB A/A	C-l LF	A	86.8 a	6.4 h	95.8 a	6.75 g
7	GLYPHOSATE	5	SL	0.03125	LB A/A	4LF	B	0 e	11.4 a-d	1.3 e	17.7 ab
8	GLYPHOSATE	5	SL	0.0625	LB A/A	4LF	B	1.3 e	11.1 a-e	7.5 e	14.6 de
9	GLYPHOSATE	5	SL	0.125	LB A/A	4LF	B	1.3 e	11.1 a-e	27.5 d	14.5 e

Means followed by same letter do not significantly differ (P=.05, LSD)

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE

Crop Code							COTTON	COTTON	COTTON	COTTON
Rating Data Type							INJURY	PLANT HT	INJURY	PLANT HT
Rating Unit							PERCENT	CM	PERCENT	CM
Rating Date							6/20/01	6/20/01	6/28/01	6/28/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
10	GLYPHOSATE	5	SL	0.25	LB A/A	4LF	B	13.8 d	10.1 def	70.8 b	9.85 f
11	GLYPHOSATE	5	SL	0.5	LB A/A	4LF	B	15 d	9.1 efg	60 bc	10.1 f
12	GLYPHOSATE	5	SL	0.03125	LB A/A	PIN SQ	C	0 e	12.7 abc	0 e	14.9 cde
13	GLYPHOSATE	5	SL	0.0625	LB A/A	PIN SQ	C	0 e	11.6 a-d	0 e	17.3 abc
14	GLYPHOSATE	5	SL	0.125	LB A/A	PIN SQ	C	0 e	12.3 abc	0 e	16.6 a-e
15	GLYPHOSATE	5	SL	0.25	LB A/A	PIN SQ	C	0 e	11.6 a-d	0 e	18.2 a
16	GLYPHOSATE	5	SL	0.5	LB A/A	PIN SQ	C	0 e	11.6 a-d	0 e	15.5 b-e
17	GLYPHOSATE	5	SL	0.03125	LB A/A	EARL BLM	D	0 e	12.3 abc	0 e	16.1 a-e
18	GLYPHOSATE	5	SL	0.0625	LB A/A	EARL BLM	D	0 e	12.7 ab	0 e	17.1 a-d
19	GLYPHOSATE	5	SL	0.125	LB A/A	EARL BLM	D	0 e	11.3 a-d	0 e	17.9 ab
20	GLYPHOSATE	5	SL	0.25	LB A/A	EARL BLM	D	0 e	12.2 a-d	0 e	18.4 a
21	GLYPHOSATE	5	SL	0.5	LB A/A	EARL BLM	D	0 e	13 a	0 e	17.3 abc
LSD (P=.05)								6.85	2.121	12.71	2.549
Standard Deviation								4.84	1.5	8.99	1.802
CV								43.89	13.75	45.41	12.35
Means followed by same letter do not significantly differ (P=.05, LSD)											

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON INJURY PERCENT 7/18/01	COTTON PLANT HT INCHES 7/18/01	COTTON INJURY PERCENT 8/1/01	COTTON PLANT HT INCHES 8/1/01
1	UNTREATED							0 g	18.3 abc	0 c	20.8 a-d
2	GLYPHOSATE	5	SL	0.03125	LB A/A	C-l LF	A	5 fg	16.6 cd	2.5 c	19.4 c-f
3	GLYPHOSATE	5	SL	0.0625	LB A/A	C-l LF	A	5 fg	17.3 bcd	0 c	21.1 ab
4	GLYPHOSATE	5	SL	0.125	LB A/A	C-l LF	A	16.3 de	16.8 cd	0.8 c	20.1 a-f
5	GLYPHOSATE	5	SL	0.25	LB A/A	C-l LF	A	36.3 c	15.6 de	1.3 c	19.2 def
6	GLYPHOSATE	5	SL	0.5	LB A/A	C-l LF	A	73.8 a	11.6 g	26.3 a	16.7 hi
7	GLYPHOSATE	5	SL	0.03125	LB A/A	4LF	B	2.5 g	16.6 cd	0 c	20 a-f
8	GLYPHOSATE	5	SL	0.0625	LB A/A	4LF	B	6.3 fg	18 abc	1.3 c	19.3 c-f
9	GLYPHOSATE	5	SL	0.125	LB A/A	4LF	B	18.8 d	16.9 cd	0 c	18.8 efg
10	GLYPHOSATE	5	SL	0.25	LB A/A	4LF	B	47.5 b	14.2 ef	8.8 bc	18.4 fgh
11	GLYPHOSATE	5	SL	0.5	LB A/A	4LF	B	56.3 b	14 ef	18 ab	17.2 ghi
12	GLYPHOSATE	5	SL	0.03125	LB A/A	PIN SQ	C	2.5 g	17.8 abc	0 c	20.1 a-f
13	GLYPHOSATE	5	SL	0.0625	LB A/A	PIN SQ	C	0 g	19 ab	0 c	21 abc
14	GLYPHOSATE	5	SL	0.125	LB A/A	PIN SQ	C	7.5 efg	16.8 cd	1.3 c	20.3 a-e
15	GLYPHOSATE	5	SL	0.25	LB A/A	PIN SQ	C	13.8 def	18.6 abc	1.3 c	20.5 a-e
16	GLYPHOSATE	5	SL	0.5	LB A/A	PIN SQ	C	51.3 b	12.7 fg	26 a	16.1 i
17	GLYPHOSATE	5	SL	0.03125	LB A/A	EARL BLM	D	0 g	17.9 abc	1.3 c	20 a-f
18	GLYPHOSATE	5	SL	0.0625	LB A/A	EARL BLM	D	0 g	19.5 a	0 c	21.5 a
19	GLYPHOSATE	5	SL	0.125	LB A/A	EARL BLM	D	0 g	18.5 abc	3.8 c	20 a-f
20	GLYPHOSATE	5	SL	0.25	LB A/A	EARL BLM	D	0 g	19.5 a	8.3 bc	21.1 ab
21	GLYPHOSATE	5	SL	0.5	LB A/A	EARL BLM	D	0 g	17.7 abc	9.3 bc	19.6 b-f
LSD (P=.05)								9.5	2.0518	11.3	1.7566
Standard Deviation								6.72	1.4509	7.99	1.2421
CV								41.19	8.62	152.84	6.35

Means followed by same letter do not significantly differ (P=.05, LSD)

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON INJURY PERCENT 8/15/01	COTTON PLANT HT INCHES 8/15/01	COTTON INJURY PERCENT 9/15/01	COTTON PLANT HT INCHES 9/19/01
1	UNTREATED							0 b	23.3 f-i	0 b	26.4 ghi
2	GLYPHOSATE	5	SL	0.03125	LB A/A	C-l LF	A	0 b	20.3 i	0 b	23.1 i
3	GLYPHOSATE	5	SL	0.0625	LB A/A	C-l LF	A	0 b	23.2 ghi	0 b	28.3 e-h
4	GLYPHOSATE	5	SL	0.125	LB A/A	C-l LF	A	0 b	26.1 c-g	0 b	30.8 d-h
5	GLYPHOSATE	5	SL	0.25	LB A/A	C-l LF	A	0 b	29.3 bc	0 b	31.7 c-f
6	GLYPHOSATE	5	SL	0.5	LB A/A	C-l LF	A	5 ab	31.2 ab	0 b	37.6 ab
7	GLYPHOSATE	5	SL	0.03125	LB A/A	4LF	B	0 b	23.8 e-h	0 b	29 d-h
8	GLYPHOSATE	5	SL	0.0625	LB A/A	4LF	B	0 b	22.1 hi	0 b	26.3 hi
9	GLYPHOSATE	5	SL	0.125	LB A/A	4LF	B	0 b	22.7 ghi	0 b	27.1 f-i
10	GLYPHOSATE	5	SL	0.25	LB A/A	4LF	B	0 b	25.7 d-g	0 b	33.2 bcd
11	GLYPHOSATE	5	SL	0.5	LB A/A	4LF	B	2.5 b	33 a	0 b	37.5 ab
12	GLYPHOSATE	5	SL	0.03125	LB A/A	PIN SQ	C	0 b	24.3 d-h	0 b	31.3 c-g
13	GLYPHOSATE	5	SL	0.0625	LB A/A	PIN SQ	C	0 b	24.3 d-h	0 b	31.3 c-g
14	GLYPHOSATE	5	SL	0.125	LB A/A	PIN SQ	C	0 b	26 c-g	0 b	31.8 c-f
15	GLYPHOSATE	5	SL	0.25	LB A/A	PIN SQ	C	0 b	23.8 e-h	0 b	27.2 f-i
16	GLYPHOSATE	5	SL	0.5	LB A/A	PIN SQ	C	10 a	26.8 cde	6.3 a	32.9 b-e
17	GLYPHOSATE	5	SL	0.03125	LB A/A	EARL BLM	D	0 b	22.9 ghi	0 b	29.2 d-h
18	GLYPHOSATE	5	SL	0.0625	LB A/A	EARL BLM	D	0 b	26.7 c-f	0 b	31.5 c-f
19	GLYPHOSATE	5	SL	0.125	LB A/A	EARL BLM	D	0 b	24.7 d-h	0 b	31.4 c-f
20	GLYPHOSATE	5	SL	0.25	LB A/A	EARL BLM	D	0 b	27.7 cd	0 b	35.8 abc
21	GLYPHOSATE	5	SL	0.5	LB A/A	EARL BLM	D	0 b	31.2 ab	0 b	38.9 a
LSD (P=.05)								6.57	3.499	3.86	4.946
Standard Deviation								4.65	2.474	2.73	3.497
CV								557.55	9.65	916.52	11.27

Means followed by same letter do not significantly differ (P=.05, LSD)

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	SEEDCOTN YIELDS LBS/ACRE 10/30/01	GIN TURNOUT PERCENT 12/4/01	YIELD LINT LBS/ACRE 12/4/01
1	UNTREATED							2536 ab	34.8 bcd	882 ab
2	GLYPHOSATE	5	SL	0.03125	LB A/A	C-l LF	A	2188 bcd	34.3 d	748 cde
3	GLYPHOSATE	5	SL	0.0625	LB A/A	C-l LF	A	2561 ab	34.8 bcd	891 ab
4	GLYPHOSATE	5	SL	0.125	LB A/A	C-l LF	A	2577 a	35 bcd	903 a
5	GLYPHOSATE	5	SL	0.25	LB A/A	C-l LF	A	2509 ab	35 bcd	878 abc
6	GLYPHOSATE	5	SL	0.5	LB A/A	C-l LF	A	1877 de	35.5 ab	667 de
7	GLYPHOSATE	5	SL	0.03125	LB A/A	4LF	B	2407 abc	34.3 d	825 abc
8	GLYPHOSATE	5	SL	0.0625	LB A/A	4LF	B	2518 ab	34.8 bcd	875 abc
9	GLYPHOSATE	5	SL	0.125	LB A/A	4LF	B	2440 abc	35 bcd	853 abc
10	GLYPHOSATE	5	SL	0.25	LB A/A	4LF	B	2394 abc	35.3 abc	841 abc
11	GLYPHOSATE	5	SL	0.5	LB A/A	4LF	B	2119 cde	36 a	764 bcd
12	GLYPHOSATE	5	SL	0.03125	LB A/A	PIN SQ	C	2460 abc	34.5 cd	848 abc
13	GLYPHOSATE	5	SL	0.0625	LB A/A	PIN SQ	C	2509 ab	35 bcd	878 abc
14	GLYPHOSATE	5	SL	0.125	LB A/A	PIN SQ	C	2437 abc	34.5 cd	840 abc
15	GLYPHOSATE	5	SL	0.25	LB A/A	PIN SQ	C	2618 a	34.8 bcd	909 a
16	GLYPHOSATE	5	SL	0.5	LB A/A	PIN SQ	C	1795 e	35.3 abc	632 de
17	GLYPHOSATE	5	SL	0.03125	LB A/A	EARL BLM	D	2473 abc	35 bcd	866 abc
18	GLYPHOSATE	5	SL	0.0625	LB A/A	EARL BLM	D	2594 a	34.3 d	889 ab
19	GLYPHOSATE	5	SL	0.125	LB A/A	EARL BLM	D	2319 abc	34.8 bcd	806 abc
20	GLYPHOSATE	5	SL	0.25	LB A/A	EARL BLM	D	1762 e	35 bcd	617 e
21	GLYPHOSATE	5	SL	0.5	LB A/A	EARL BLM	D	897 f	35 bcd	314 f
LSD (P=.05)								377	0.9	132.7
Standard Deviation								266.6	0.63	93.8
CV								11.67	1.82	11.78

Means followed by same letter do not significantly differ (P=.05, LSD)

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	FIBER DATA MIC 12/14/01	FIBER DATA LENGTH 12/14/01	FIBER DATA UNIFORM 12/14/01	FIBER DATA STRENGTH 12/14/01
1	UNTREATED							5.18 ab	1.14 a	84.85 a	29.9 b-f
2	GLYPHOSATE	5	SL	0.03125	LB A/A	C-l LF	A	5.15 ab	1.14 a	84.8 a	31.3 a
3	GLYPHOSATE	5	SL	0.0625	LB A/A	C-l LF	A	5.05 abc	1.14 a	85.55 a	30.2 a-f
4	GLYPHOSATE	5	SL	0.125	LB A/A	C-l LF	A	4.57 fgh	1.14 a	84.9 a	29.8 c-f
5	GLYPHOSATE	5	SL	0.25	LB A/A	C-l LF	A	4.73 def	1.15 a	85.03 a	29.3 ef
6	GLYPHOSATE	5	SL	0.5	LB A/A	C-l LF	A	4.25 i	1.15 a	85.32 a	29.2 f
7	GLYPHOSATE	5	SL	0.03125	LB A/A	4LF	B	5.2 a	1.14 a	85.25 a	30.5 a-d
8	GLYPHOSATE	5	SL	0.0625	LB A/A	4LF	B	5 a-d	1.14 a	84.78 a	30.2 a-f
9	GLYPHOSATE	5	SL	0.125	LB A/A	4LF	B	4.93 a-e	1.16 a	85 a	31.3 a
10	GLYPHOSATE	5	SL	0.25	LB A/A	4LF	B	4.8 c-f	1.16 a	85.1 a	29.6 def
11	GLYPHOSATE	5	SL	0.5	LB A/A	4LF	B	4.35 hi	1.14 a	85 a	29.8 b-f
12	GLYPHOSATE	5	SL	0.03125	LB A/A	PIN SQ	C	5.07 abc	1.14 a	85.25 a	30.8 abc
13	GLYPHOSATE	5	SL	0.0625	LB A/A	PIN SQ	C	5.2 a	1.16 a	85.4 a	31.3 a
14	GLYPHOSATE	5	SL	0.125	LB A/A	PIN SQ	C	4.93 a-e	1.15 a	85.27 a	31 ab
15	GLYPHOSATE	5	SL	0.25	LB A/A	PIN SQ	C	4.95 a-e	1.15 a	85.3 a	30.4 a-e
16	GLYPHOSATE	5	SL	0.5	LB A/A	PIN SQ	C	4.43 ghi	1.16 a	85.28 a	30 b-f
17	GLYPHOSATE	5	SL	0.03125	LB A/A	EARL BLM	D	5.13 ab	1.15 a	84.93 a	30.8 a-d
18	GLYPHOSATE	5	SL	0.0625	LB A/A	EARL BLM	D	5 a-d	1.16 a	85.73 a	30.7 a-d
19	GLYPHOSATE	5	SL	0.125	LB A/A	EARL BLM	D	5.1 ab	1.16 a	85.35 a	30.5 a-e
20	GLYPHOSATE	5	SL	0.25	LB A/A	EARL BLM	D	4.9 b-e	1.15 a	85.3 a	31 abc
21	GLYPHOSATE	5	SL	0.5	LB A/A	EARL BLM	D	4.68 efg	1.14 a	85.6 a	30.7 a-d
LSD (P=.05)								0.295	0.0296	1.05	1.182
Standard Deviation								0.208	0.021	0.742	0.836
CV								4.26	1.83	0.87	2.75

Means followed by same letter do not significantly differ (P=.05, LSD)

SIMULATING DRIFT WITH LOW RATES OF GLYPHOSATE ON CONVENTIONAL COTTON

OSU

APPLICATION DESCRIPTION				
	A	**B**	**C**	**D**
Application Date:	6/6/01	6/14/01	6/27/01	7/17/01
Time of Day:	11:00 AM	11:00 AM	8:30 AM	11:00 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	2-3 LEAF	5-6 LEAF	PINHEADSQ	EARLBLOOM
Applic. Placement:	BROADCAST	BROADCAST	BROADCAST	BROADCAST
Air Temp., Unit:	93 F	84 F	78 F	96.5 F
% Relative Humidity:	50	45	59	42
Wind Velocity, Unit:	7 MPH	10 MPH	10 MPH	4 MPH
Soil Temp., Unit:	87 F	96 F	80 F	93 F
Soil Moisture:	ADEEQUATE	MARGINAL	DRY	DRY
% Cloud Cover:	15	40	10	5

APPLICATION EQUIPMENT				
	A	**B**	**C**	**D**
Appl. Equipment:	JD HI-BOY	JD HI-BOY	JD HI-BOY	JD HI-BOY
Operating Pressure:	28 PSI	28 PSI	28 PSI	28 PSI
Nozzle Type:	TJFLATFAN	TJFLATFAN	TJFLATFAN	TJFLATFAN
Nozzle Size:	110015VS	110015VS	110015VS	110015VS
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, Unit:	10 GPA	10 GPA	10 GPA	10 GPA
Propellant:	CO2	CO2	CO2	CO2

SEED TREATMENT EVALUATION

OSU

TRIAL ID:	OSUST0101	**LOCATION:**	OSUREC
VARIETY:	DP 458 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	May 16TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 50'	**REPLICATIONS:**	3
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

The objective of this trial was to determine the effectiveness of various seed treatments on stand establishment and seedling vigor of irrigated cotton in Oklahoma. Ten different seed treatments were applied by Dr. Terry Wheeler of TAES, to Deltapine 458 B/R and planted in mid-May. Baytan 30 and Systhane 40 (similar to Nuflow M) are considered thielaviopsis and Rhizoctonia solani materials. Maxim, Protégé, and Vitavax-PCNB are for Rhizoctonia solani, while Allegiance FL, and Apron FL are considered Pythium materials. Stand counts indicated that numerically, treatment 3 (Ascend 30 + Baytan 30 + Allegiance) produced the best stand, however, no treatments were different from the untreated. Likewise, no treatment improved seedling vigor compared to the untreated.

Crop Code								COTTON	COTTON
Rating Data Type								STAND CT	VIGOR
Rating Unit								#/METER	'1-10 SCAL
Rating Date								6/7/01	6/8/01
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	UNTREATED							15.7 ab	3 ab
2	RTU-BAYTAN-THIRAM		L	3	FL OZ/CWT	AT PLANT	A	12.3 ab	3.7 a
2	ALLEGIANCE		FL	0.75	FL OZ/CWT	AT PLANT	A		
3	ASCEND 30		L	1.5	FL OZ/CWT	AT PLANT	A	17.3 a	3 ab
3	BAYTAN 30		L	0.5	FL OZ/CWT	AT PLANT	A		
3	ALLEGIANCE		FL	0.75	FL OZ/CWT	AT PLANT	A		
4	SYSTHANE	40	WSP	0.9	FL OZ/CWT	AT PLANT	A	11 ab	2.7 ab
4	MAXIM	4	FS	0.08	FL OZ/CWT	AT PLANT	A		
4	APRON XL		L	0.32	FL OZ/CWT	AT PLANT	A		
5	SYSTHANE	40	WSP	1.3	FL OZ/CWT	AT PLANT	A	15.7 ab	3 ab
5	MAXIM	4	FS	0.08	FL OZ/CWT	AT PLANT	A		
5	APRON XL		L	0.32	FL OZ/CWT	AT PLANT	A		
6	SYSTHANE	40	WSP	1.3	FL OZ/CWT	AT PLANT	A	13.3 ab	3 ab
6	APRON XL		L	0.32	FL OZ/CWT	AT PLANT	A		
7	MAXIM	4	FS	0.08	FL OZ/CWT	AT PLANT	A	9 b	2.3 b
7	APRON XL		L	0.32	FL OZ/CWT	AT PLANT	A		

Means followed by same letter do not significantly differ (P=.05, LSD)

SEED TREATMENT EVALUATION

OSU

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	COTTON STAND CT #/METER 6/7/01	COTTON VIGOR '1-10 SCAL 6/8/01
8	VITAVAX-PCNB		L	6	FL OZ/CWT	AT PLANT	A	13.3 ab	2.7 ab
8	ALLEGIANCE		FL	0.75	FL OZ/CWT	AT PLANT	A		
9	PROTEGE		FL	0.2	FL OZ/CWT	AT PLANT	A	12.7 ab	3.3 ab
9	ASCEND 30		L	1.5	FL OZ/CWT	AT PLANT	A		
9	ALLEGIANCE		FL	0.75	FL OZ/CWT	AT PLANT	A		
10	PROTEGE		FL	0.2	FL OZ/CWT	AT PLANT	A	13.7 ab	3 ab
10	ASCEND 30		L	1.5	FL OZ/CWT	AT PLANT	A		
10	BAYTAN 30		L	0.25	FL OZ/CWT	AT PLANT	A		
10	ALLEGIANCE		FL	0.75	FL OZ/CWT	AT PLANT	A		
LSD (P=.05)								6.99	1.16
Standard Deviation								4.07	0.68
CV								30.4	22.84

Means followed by same letter do not significantly differ (P=.05, LSD)

EFFECTS OF THREE TILLAGE METHODS ON IRRIGATED COTTON YIELDS: ROME-PEGASUS, CONVENTIONAL, & LIMITED TILLAGE

OSU

TRIAL ID:	OSUTC0101	**LOCATION:**	WOSC
VARIETY:	PM 2280 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	June 18TH	**RATE:**	12 lbs/acre
PLOT SIZE:	4r x 530'	**REPLICATIONS:**	4
SOIL TYPE:	Tillman Hollister Clay Loam		

Project Summary:

This trials objective was to determine the effects of off-season tillage on growth and yield of cotton in Oklahoma. The Rhome-Pegasus one-pass plow was compared to conventional tillage methods here in Oklahoma, and a limited tillage system. The conventional tillage system consisted of shredding stalks after harvest, discing, running a ripper/bedder followed by a rolling cultivator. The limited tillage treatment consisted only of the prepmaster and rolling cultivator passes used to incorporate treflan and urea at the same time. However, two burndown applications of Roundup Ultramax were applied 3 weeks and 1 week prior to planting. All plots had Treflan and fertilizer incorporated in the same fashion.
Due to winter rainfall, the tillage operations did not take place until April of 2001. A driving rain following planting resulted in the uptake of Caparol herbicide by all treatments which gradually led to severe crop injury and death. Replanting occurred on June 18th. Typically, cotton is not planted this late in the season, however, above average heat unit accumulation experienced through the summer aided the development of the crop. No differences were observed in cotton stand establishment. The limited tillage plots produced more lint/acre than conventional tillage. However, conventional tillage and the Rhome Pegasus produced statistically the same amount of lint/acre. No differences were observed in fiber quality.

Crop	COTTON	SEEDCOTN	GIN	LINT	FIBER	FIBER	FIBER	FIBER
Rating Data Type	STAND CT	YIELD	TURNOUT	YIELD	DATA	DATA	DATA	DATA
Rating Unit	#/METER	LBS/PLOT	PERCENT	LBS/ACRE	MIC	LENGTH	STRENGTH	UNIFORM
Rating Date	7/3/01	11/5/01	12/6/01	12/6/01	1/10/01	1/10/01	1/10/01	1/10/01
Trt No. Treatment Name								
1 ROME PEGASUS	12.3 a	367.5 a	34.68 a	794 ab	3.65 a	1.173 a	29.75 a	84.13 a
2 CONVENTIONAL	12.3 a	361.3 a	33.78 a	763 b	3.43 a	1.185 a	30.15 a	84.32 a
3 LIMITED TILLAGE	12.3 a	395 a	33.97 a	839 a	3.35 a	1.195 a	29.62 a	84.23 a
LSD (P=.05)	2.71	43.57	1.554	68	0.593	0.0354	1.334	0.944
Standard Deviation	1.56	25.18	0.898	39.3	0.343	0.0205	0.771	0.545
CV	12.76	6.72	2.63	4.92	9.86	1.73	2.58	0.65

Means followed by same letter do not significantly differ (P=.05, LSD)

NO-TILL DRYLAND PLANT POPULATION DEMONSTRATION
WASHITA COUNTY
OSU

TRIAL ID:	OSUTC0102	**LOCATION:**	Johnson farm
VARIETY:	PM 2326 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	MAY 28TH	**PLOT SIZE:**	25 Acres

Project Summary:
The objective of this demonstration was to establish three different dryland plant populations into heavy crop residue. Rye was used as the residue at this demonstration site. Seven, nine and twelve lbs/acre were planted into large un-replicated plots in order to determine differences in yield due to plant population. The highest yield (373 lbs/acre) was produced from the 9 lb/acre planting rate. There were relatively no differences in fiber quality.

Crop	SEEDCOTN	GIN	LINT	FIBER	FIBER	FIBER	FIBER
Rating Data Type	YIELD	TURNOUT	YIELD	DATA	DATA	DATA	DATA
Rating Unit	LBS/PLOT	PERCENT	LBS/ACRE	MIC	LENGTH	STRENGTH	UNIFORM
Rating Date	11/6/01	12/7/01	12/7/01	1/10/02	1/10/02	1/10/02	1/10/02
Trt No. Treatment Name							
1 7 LBS/ACRE	640	36	346	4.9	1.04	31.6	83.2
2 9 LBS/ACRE	710	35	373	5.1	1.07	30.9	83.7
3 12 LBS/ACRE	660	35.5	351	5	1.04	29.6	83.2

NO-TILL PLANT POPULATION DEMONSTRATION
CUSTER COUNTY
OSU

TRIAL ID:	OSUTC0103	**LOCATION:**	Shephard farm
VARIETY:	PM 2326 B/R	**ROW SPACING:**	40 inches
PLANTING DATE:	June 4TH	**PLOT SIZE:**	4r x 1320'

Project Summary:
Another dryland no-till plant population demonstration was established in Custer County along Barnitz creek. This demonstration was established to compare populations of 7,9,&12 lbs/acre to conventional cotton planted in an adjacent plot. There was also a 7 lb/acre planting rate without Temik insecticide in order to show the benefits of applying Temik in-furrow. Unfortunately, virtually no thrips pressure at this location resulted in no yield difference between the Temik treated plot and the non-treated plot. The highest lint yield produced within this demonstrations came again from the 9 lb/acre planting rate, which was also greater than the conventional cotton yield.

Crop Code	SEEDCOTT	GIN	LINT	FIBER	FIBER	FIBER	FIBER
Rating Data Type	YIELD	TURNOUT	YIELD	DATA	DATA	DATA	DATA
Rating Unit	G/PLOT	PERCENT	LBS/ACRE	MIC	LENGTH	STRENGTH	UNIFORM
Rating Date	12/12/01	12/12/01	12/12/01	1/10/02	1/10/02	1/10/02	1/10/02
Trt No.	Treatment Name						
1	7 LBS/ACRE-NO TEMIK	499	16.7	367	5	1.04	32.4	81.9
2	7LBS/ACRE	519	16	366	4.7	1.1	28.7	83.6
3	9LBS/ACRE	651	21.6	619	5.2	1.04	28	83.1
4	12LBS/ACRE	650	17.8	510	5.3	1.08	31	84.3
5	CONVENTIONAL TILLAGE	674	16.8	499	4.6	1.14	30	82.9