

University of Georgia

Cinch use in Roundup Ready cotton.

Trial ID: C30-03
Location: Attapulcus

Study Dir.: Culpepper
Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Culpepper **Title:** ext.weed science
Affiliation: University of Georgia **Postal Code:** 31794
Investigator: Stanley Culpepper **Title:** ext. weed science
Affiliation: University of Georgia **Postal Code:** 31794

Trial Status: completed **Initiation Date:** May-28-03 **Country:** U.S.A.
City: Attapulcus **State/Prov.:** GA **Postal Code:** 31794
Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

CROP AND PEST DESCRIPTION

Weed 1: CASOB sicklepod **2:** DEDTO Florida beggarweed
Weed 3: ACHNI bristly starbur **4:** AMAPA Palmer amaranth
Weed 5: RCHSC Florida pusley **6:** IAQTA Smallflower morningglory

Crop 1: GOSHI cotton **Variety:** DP 451 B/RR **Planting Date:** May-28-03
Planting Method: conventional **Rate:** 3 seed/ft **Depth:** 0.5 in
Row Spacing: 36 inch **Seed Bed:** bedded
Soil Temperature: 82 F **Soil Moisture:** moist **Emergence Date:** Jun-04-03

Plot Width, Unit: 12 FT **Plot Length, Unit:** 22 FT **Reps:** 4
Site Type: FIELD
Tillage Type: CONVENTIONAL-TILL **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

Texture: loamy sand **% OM:** 1.3 **% Sand:** 84 **% Silt:** 8 **% Clay:** 8
pH: 5.9

Overall Moisture Conditions: wet

APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	May-28-03	Jun-05-03	Jun-20-03	Jun-30-03		
Time of Day:	1:00pm	10:00am	9:00am	8:00am		
Application Method:	Broadcast	Broadcast	Broadcast	Broadcast		
Application Timing:	PRE	1-leaf	5-leaf	7-leaf		
Applic. Placement:	on soil	overtop	overtop	overtop		
Air Temp., Unit:	83 F	82 F	77 F	75 F		
% Relative Humidity:	40	49	80	70		
Wind Velocity, Unit:	2 mph	3 mph	3 mph	2 mph		
Dew Presence (Y/N):	n	n	n	n		
Soil Temp., Unit:	85 F	82 F	80 F	75 F		
Soil Moisture:	moist	moist	moist	wet		
% Cloud Cover:	0	0	100	100		

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Crop 1 GOSHI Stage:	PRE	1-leaf	5-leaf	7-leaf		
Stage Scale:	.	V0-V1	V4-V5	V6-V7		
Height, Unit:	0. .	1 inch	4 inch	8 inch		

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WEED STAGE AT EACH APPLICATION						
	A	B	C	D	E	F
Weed 1 CASOB Stage:	PRE	1-leaf	5-leaf	7-leaf		
Stage Scale:	.	<1 inch	<3 inch	4-8 inch		
Density, Unit:	. .	3 ydsq	. .	. .
Weed 2 DEDTO Stage:	PRE	1-leaf	5-leaf	7-leaf		
Stage Scale:	.	<1 inch	<2 inch	4-7 inch		
Density, Unit:	. .	6 ydsq	. .	. .
Weed 3 ACHNI Stage:	PRE	PRE	5-leaf	7-leaf		
Stage Scale:	.	.	<2 inch	2-5 inch		
Density, Unit:	. .	. .	2 ydsq	. .		
Weed 4 AMAPA Stage:	PRE	1-leaf	5-leaf	7-leaf		
Stage Scale:	.	<2 inch	<2 inch	4-8 inch		
Density, Unit:	. .	18 ydsq	. .	. .
Weed 5 RCHSC Stage:	PRE	PRE	5-leaf	7-leaf		
Stage Scale:	.	.	<0.5"	1"		
Density, Unit:	. .	. .	12 ydsq	. .		
Weed 6 IAQTA Stage:	PRE	1-leaf	5-leaf	7-leaf		
Stage Scale:	.	<0.5"	<1"	2-5 inch		
Density, Unit:	. .	4 ydsq	. .	. .

APPLICATION EQUIPMENT						
	A	B	C	D	E	F
Appl. Equipment:	backpack	backpack	backpack	backpack		
Operating Pressure:	22	22	22	22		
Nozzle Type:	flat fan	flat fan	flat fan	flat fan		
Nozzle Size:	11002	11002	11002	11002		
Nozzle Spacing, Unit:	18 inch	18 inch	18 inch	18 inch		
Nozzles/Row:	2	2	2	2		
Boom Length, Unit:	4.5 feet	4.5 feet	4.5 feet	4.5 feet		
Boom Height, Unit:	15 inch	15 inch	15 inch	15 inch		
Ground Speed, Unit:	3 mph	3 mph	3 mph	3 mph		
Carrier:	water	water	water	water		
Spray Volume, Unit:	14.8 GPA	14.8 GPA	14.8 GPA	14.8 GPA		
Propellant:	CO2	CO2	CO2	CO2		
Tank Mix (Y/N):	Y	Y	Y	Y		

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Trial ID: C30-03

Study Dir.: Culpepper

Location: Attapulcus

Investigator: Stanley Culpepper

Weed Code			GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	IAQTA	IAQTA
Crop Code			injury	injury	injury	injury	injury	control	control
Rating Data Type			percent	percent	percent	percent	percent	percent	percent
Rating Unit									
Rating Date			Jun-05-03	Jun-10-03	Jun-30-03	Jul-11-03	Jul-27-03	Jun-10-03	Jun-30-03
Trt-Eval Interval			2 DA-A		33 DA-A	44 DA-A			
Trt	Treatment	Rate	Rate						
No.	Name	Unit	1	2	3	4	5	6	7
1	Cinch	1 pt/a	10.0	8.5	4.8	2.0	0.0	98.0	99.0
	Staple	0.03 lb ai/a							
	Staple	0.02 lb ai/a							
	Roundup WeatherMax	0.75 pt/a							
	Staple	0.02 lb ai/a							
	Roundup WeatherMax	0.75 pt/a							
2	Cinch	1 pt/a	11.0	10.5	6.3	6.0	0.0	96.5	99.0
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	0.75 pt/a							
	Staple	0.02 lb ai/a							
	Roundup WeatherMax	0.75 pt/a							
3	Cinch	1 pt/a	11.0	11.3	4.3	7.5	0.0	96.5	99.0
	Staple	0.04 lb ai/a							
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	1 pt/a							
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	1 pt/a							
4	Cinch	1 pt/a	12.0	10.0	7.3	8.0	0.0	95.3	99.0
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	1 pt/a							
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	1 pt/a							
5	Cinch	1 pt/a	10.3	11.0	5.0	2.0	0.0	97.3	92.3
	Staple	0.04 lb ai/a							
	Staple	0.02 lb ai/a							
	Roundup WeatherMax	0.75 pt/a							
6	Cinch	1 pt/a	10.5	9.8	5.3	3.0	0.0	97.3	86.3
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	0.75 pt/a							
7	Staple	0.03 lb ai/a	0.0	5.8	0.8	0.0	0.0	95.8	99.0
	Roundup WeatherMax	1 pt/a							
	Staple	0.03 lb ai/a							
	Roundup WeatherMax	1 pt/a							
8	Roundup WeatherMax	21.3 oz/a	0.0	0.0	1.5	0.0	0.0	92.3	95.0
	Roundup WeatherMax	21.3 oz/a							
9	Touchdown	1.5 pt/a	0.8	0.0	0.0	16.3	0.0	88.8	52.5
	Envoke	0.007 lb ai/a							
	NIS	0.25 % v/v							
10	Touchdown	1.5 pt/a	0.0	0.0	0.0	12.0	0.0	91.5	80.0
	Dual Mag.	1 pt/a							
	Envoke	0.0047 lb ai/a							
	NIS	0.25 % v/v							
11	Touchdown	1.5 pt/a	0.0	0.0	0.0	15.8	0.0	93.8	78.8
	Dual Mag.	1 pt/a							
	Envoke	0.007 lb ai/a							
	NIS	0.25 % v/v							
12	Touchdown	1.5 pt/a	0.0	0.0	0.0	0.0	0.0	90.8	79.5
	Cinch	1 pt/a							
13	Roundup WeatherMax	21.3 oz/a	0.0	0.0	0.0	0.0	0.0	92.8	82.0
	Cinch	1 pt/a							

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Weed Code			GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	IAQTA	IAQTA	
Crop Code			injury	injury	injury	injury	injury	control	control	
Rating Data Type			percent	percent	percent	percent	percent	percent	percent	
Rating Unit			Jun-05-03	Jun-10-03	Jun-30-03	Jul-11-03	Jul-27-03	Jun-10-03	Jun-30-03	
Rating Date										
Trt-Eval Interval			2 DA-A	33 DA-A	44 DA-A					
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7
14	non-treated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LSD (P=.05)			1.86	4.14	2.56	4.15	0.00	3.91	7.96
	Standard Deviation			1.30	2.89	1.79	2.90	0.00	2.74	5.57
	CV			27.84	60.7	71.71	56.07	0.0	3.12	6.84
	Bartlett's X2			5.116	4.376	4.78	25.726	0.0	19.222	9.147
	P(Bartlett's X2)			0.402	0.626	0.687	0.001*	.	0.083	0.242

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code				IAQTA	IAQTA	IAQTA	RCHSC	RCHSC	PANTE	PANTE
Crop Code										
Rating Data Type				control	control	control	control	control	control	control
Rating Unit				percent	percent	percent	percent	percent	percent	percent
Rating Date				Jul-11-03	Jul-27-03	Oct-02-03	Jun-30-03	Jul-27-03	Jun-10-03	Jun-30-03
Trt-Eval Interval										
Trt No.	Treatment Name	Rate	Unit	8	9	10	11	12	13	14
1	Cinch	1	pt/a	98.0	92.8	94.8	99.0	86.3	99.0	98.3
	Staple	0.03	lb ai/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
2	Cinch	1	pt/a	97.5	90.8	52.3	99.0	87.5	98.5	99.0
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
3	Cinch	1	pt/a	98.3	94.0	79.5	99.0	89.8	99.0	99.0
	Staple	0.04	lb ai/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
4	Cinch	1	pt/a	98.0	88.8	79.5	99.0	86.0	99.0	99.0
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
5	Cinch	1	pt/a	85.0	50.0	72.8	97.8	47.5	98.8	82.5
	Staple	0.04	lb ai/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
6	Cinch	1	pt/a	82.5	43.8	62.3	95.8	43.8	99.0	82.3
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
7	Staple	0.03	lb ai/a	97.3	88.8	88.0	99.0	81.3	99.0	97.8
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
8	Roundup WeatherMax	21.3	oz/a	95.3	81.3	72.5	99.0	76.3	94.3	98.5
	Roundup WeatherMax	21.3	oz/a							
9	Touchdown	1.5	pt/a	80.0	45.0	62.5	50.0	48.8	92.3	59.8
	Envoke	0.007	lb ai/a							
	NIS	0.25	% v/v							
10	Touchdown	1.5	pt/a	83.0	52.5	62.5	95.5	78.8	97.5	83.3
	Dual Mag.	1	pt/a							
	Envoke	0.0047	lb ai/a							
	NIS	0.25	% v/v							
11	Touchdown	1.5	pt/a	85.3	67.5	67.5	97.8	88.8	98.5	83.0
	Dual Mag.	1	pt/a							
	Envoke	0.007	lb ai/a							
	NIS	0.25	% v/v							
12	Touchdown	1.5	pt/a	71.3	21.3	21.3	94.3	20.0	95.8	82.5
	Cinch	1	pt/a							
13	Roundup WeatherMax	21.3	oz/a	72.5	28.8	20.0	97.5	27.5	95.8	84.5
	Cinch	1	pt/a							
14	non-treated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)				8.35	14.14	19.89	7.57	20.76	3.37	6.39
Standard Deviation				5.84	9.90	13.92	5.30	14.53	2.35	4.47
CV				7.15	16.4	23.33	6.07	23.6	2.6	5.45
Bartlett's X2				45.834	38.309	44.871	15.597	31.492	19.843	34.654
P(Bartlett's X2)				0.001*	0.001*	0.001*	0.016*	0.001*	0.006*	0.001*

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Weed Code	IAQTA	IAQTA	IAQTA	RCHSC	RCHSC	PANTE	PANTE
Crop Code							
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	Jul-11-03	Jul-27-03	Oct-02-03	Jun-30-03	Jul-27-03	Jun-10-03	Jun-30-03
Trt-Eval Interval							

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code				PANTE	PANTE	PANTE	AMAPA	AMAPA	AMAPA	AMAPA
Crop Code										
Rating Data Type				control	control	control	control	control	control	control
Rating Unit				percent	percent	percent	percent	percent	percent	percent
Rating Date				Jul-11-03	Jul-27-03	Oct-02-03	Jun-10-03	Jun-30-03	Jul-11-03	Jul-27-03
Trt-Eval Interval										60 DA-A
Trt No.	Treatment Name	Rate	Unit	15	16	17	18	19	20	21
1	Cinch	1	pt/a	94.5	85.3	84.8	99.0	99.0	98.0	96.8
	Staple	0.03	lb ai/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
2	Cinch	1	pt/a	94.5	83.3	82.0	98.5	99.0	98.0	94.8
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
3	Cinch	1	pt/a	96.3	86.0	85.3	99.0	99.0	97.3	96.3
	Staple	0.04	lb ai/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
4	Cinch	1	pt/a	94.3	85.3	85.5	99.0	99.0	98.0	93.5
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
5	Cinch	1	pt/a	78.8	22.5	37.5	98.8	99.0	86.5	47.5
	Staple	0.04	lb ai/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
6	Cinch	1	pt/a	71.5	27.5	31.3	99.0	99.0	84.8	38.8
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
7	Staple	0.03	lb ai/a	91.5	78.3	92.3	99.0	99.0	99.0	94.8
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
8	Roundup WeatherMax	21.3	oz/a	91.0	78.3	88.0	94.3	99.0	92.8	77.5
	Roundup WeatherMax	21.3	oz/a							
9	Touchdown	1.5	pt/a	69.0	22.5	40.8	92.3	37.5	91.8	51.3
	Envoke	0.007	lb ai/a							
	NIS	0.25	% v/v							
10	Touchdown	1.5	pt/a	85.0	67.0	65.8	97.5	99.0	97.0	94.0
	Dual Mag.	1	pt/a							
	Envoke	0.0047	lb ai/a							
	NIS	0.25	% v/v							
11	Touchdown	1.5	pt/a	84.0	70.0	75.5	98.5	96.8	97.0	92.0
	Dual Mag.	1	pt/a							
	Envoke	0.007	lb ai/a							
	NIS	0.25	% v/v							
12	Touchdown	1.5	pt/a	70.8	20.0	62.5	95.8	99.0	81.8	35.0
	Cinch	1	pt/a							
13	Roundup WeatherMax	21.3	oz/a	69.3	21.3	40.0	95.8	99.0	86.3	27.0
	Cinch	1	pt/a							
14	non-treated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)				8.04	12.37	19.68	3.37	2.60	11.81	23.48
Standard Deviation				5.63	8.65	13.77	2.35	1.82	8.26	16.43
CV				7.23	16.22	22.13	2.6	2.08	9.58	24.5
Bartlett's X2				52.484	29.566	22.133	19.843	0.033	60.172	55.611
P(Bartlett's X2)				0.001*	0.002*	0.036*	0.006*	0.856	0.001*	0.001*

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Weed Code	PANTE	PANTE	PANTE	AMAPA	AMAPA	AMAPA	AMAPA
Crop Code							
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	Jul-11-03	Jul-27-03	Oct-02-03	Jun-10-03	Jun-30-03	Jul-11-03	Jul-27-03
Trt-Eval Interval							60 DA-A

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code		AMAPA	ACNHI	ACHNI	DEDTO	DEDTO	DEDTO	CASOB		
Crop Code										
Rating Data Type		control	control	control	control	control	control	control		
Rating Unit		percent	percent	percent	percent	percent	percent	percent		
Rating Date		Oct-02-03	Jun-30-03	Jul-11-03	Jun-30-03	Jul-11-03	Jul-27-03	Jun-10-03		
Trt-Eval Interval		60 DA-A								
Trt No.	Treatment Name	Rate	Unit	22	23	24	25	26	27	28
1	Cinch	1	pt/a	98.0	99.0	98.0	99.0	98.0	94.3	98.0
	Staple	0.03	lb ai/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
2	Cinch	1	pt/a	98.0	99.0	97.5	99.0	97.5	93.5	96.5
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
3	Cinch	1	pt/a	98.0	99.0	98.3	99.0	98.3	96.3	96.5
	Staple	0.04	lb ai/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
4	Cinch	1	pt/a	98.5	99.0	98.0	99.0	98.0	92.0	94.8
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
5	Cinch	1	pt/a	88.0	89.8	82.8	93.3	82.8	47.5	97.3
	Staple	0.04	lb ai/a							
	Staple	0.02	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
6	Cinch	1	pt/a	52.5	88.5	77.5	88.5	77.5	43.8	97.3
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	0.75	pt/a							
7	Staple	0.03	lb ai/a	98.0	99.0	97.3	99.0	97.3	93.8	95.8
	Roundup WeatherMax	1	pt/a							
	Staple	0.03	lb ai/a							
	Roundup WeatherMax	1	pt/a							
8	Roundup WeatherMax	21.3	oz/a	79.3	99.0	95.3	99.0	95.3	88.3	90.5
	Roundup WeatherMax	21.3	oz/a							
9	Touchdown	1.5	pt/a	89.0	52.5	96.0	52.5	96.5	62.5	88.8
	Envoke	0.007	lb ai/a							
	NIS	0.25	% v/v							
10	Touchdown	1.5	pt/a	98.0	89.8	96.0	84.5	96.0	91.3	91.5
	Dual Mag.	1	pt/a							
	Envoke	0.0047	lb ai/a							
	NIS	0.25	% v/v							
11	Touchdown	1.5	pt/a	98.5	92.0	96.0	82.5	96.0	89.5	93.8
	Dual Mag.	1	pt/a							
	Envoke	0.007	lb ai/a							
	NIS	0.25	% v/v							
12	Touchdown	1.5	pt/a	94.8	84.8	70.5	81.3	70.5	20.0	90.8
	Cinch	1	pt/a							
13	Roundup WeatherMax	21.3	oz/a	95.5	92.8	73.8	84.0	73.8	27.5	92.8
	Cinch	1	pt/a							
14	non-treated			0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)				13.60	9.46	6.95	7.85	7.00	21.88	4.45
Standard Deviation				9.52	6.62	4.86	5.49	4.90	15.31	3.11
CV				11.24	7.83	5.78	6.63	5.83	22.81	3.56
Bartlett's X2				75.822	3.811	55.52	13.696	53.016	64.155	22.282
P(Bartlett's X2)				0.001*	0.702	0.001*	0.033*	0.001*	0.001*	0.034*

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Weed Code	AMAPA	ACNHI	ACHNI	DEDTO	DEDTO	DEDTO	CASOB
Crop Code							
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	Oct-02-03	Jun-30-03	Jul-11-03	Jun-30-03	Jul-11-03	Jul-27-03	Jun-10-03
Trt-Eval Interval	60 DA-A						

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

University of Georgia

Weed Code				CASOB	CASOB	CASOB	CASOB
Crop Code							
Rating Data Type				control	control	control	control
Rating Unit				percent	percent	percent	percent
Rating Date				Jun-30-03	Jul-11-03	Jul-27-03	Oct-02-03
Trt-Eval Interval							
Trt No.	Treatment Name	Rate	Unit	29	30	31	32
1	Cinch	1	pt/a	99.0	98.0	90.3	89.3
	Staple	0.03	lb ai/a				
	Staple	0.02	lb ai/a				
	Roundup WeatherMax	0.75	pt/a				
	Staple	0.02	lb ai/a				
	Roundup WeatherMax	0.75	pt/a				
2	Cinch	1	pt/a	98.5	97.0	88.8	89.8
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	0.75	pt/a				
	Staple	0.02	lb ai/a				
	Roundup WeatherMax	0.75	pt/a				
3	Cinch	1	pt/a	99.0	98.3	94.0	96.0
	Staple	0.04	lb ai/a				
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	1	pt/a				
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	1	pt/a				
4	Cinch	1	pt/a	99.0	98.0	92.0	93.5
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	1	pt/a				
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	1	pt/a				
5	Cinch	1	pt/a	88.3	83.8	57.5	56.3
	Staple	0.04	lb ai/a				
	Staple	0.02	lb ai/a				
	Roundup WeatherMax	0.75	pt/a				
6	Cinch	1	pt/a	90.0	78.8	30.0	48.8
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	0.75	pt/a				
7	Staple	0.03	lb ai/a	98.8	97.3	91.3	92.0
	Roundup WeatherMax	1	pt/a				
	Staple	0.03	lb ai/a				
	Roundup WeatherMax	1	pt/a				
8	Roundup WeatherMax	21.3	oz/a	96.0	95.3	82.5	85.8
	Roundup WeatherMax	21.3	oz/a				
9	Touchdown	1.5	pt/a	52.5	97.5	90.0	96.5
	Envoke	0.007	lb ai/a				
	NIS	0.25	% v/v				
10	Touchdown	1.5	pt/a	81.3	96.0	87.0	93.5
	Dual Mag.	1	pt/a				
	Envoke	0.0047	lb ai/a				
	NIS	0.25	% v/v				
11	Touchdown	1.5	pt/a	83.8	97.0	89.5	98.5
	Dual Mag.	1	pt/a				
	Envoke	0.007	lb ai/a				
	NIS	0.25	% v/v				
12	Touchdown	1.5	pt/a	80.0	72.3	20.0	7.5
	Cinch	1	pt/a				
13	Roundup WeatherMax	21.3	oz/a	83.3	75.0	20.0	7.5
	Cinch	1	pt/a				
14	non-treated			0.0	0.0	0.0	0.0
LSD (P=.05)				6.78	7.67	6.66	9.51
Standard Deviation				4.74	5.37	4.66	6.65
CV				5.78	6.35	6.99	9.76
Bartlett's X2				33.331	54.501	21.968	27.988
P(Bartlett's X2)				0.001*	0.001*	0.009*	0.006*

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Weed Code	CASOB	CASOB	CASOB	CASOB
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jun-30-03	Jul-11-03	Jul-27-03	Oct-02-03
Trt-Eval Interval				

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

Trial Comments

OBJECTIVE: Evaluate Cinch/Staple systems in RR cotton.

Crop Response:

1. Cotton stunting from Cinch ranged from 10 to 12% at 5 d after emergence. After a couple of weeks, cotton began to recover. Staple mixed with Cinch did not appear to impact cotton growth.
2. Little to no injury from Staple plus glyphosate or s-metolachlor plus glyphosate applied topically was noted at this location.
3. Cotton chlorosis and stunting was noted with Envoke (12-16%) as normally observed.

Weed Response:

Smallflower morningglory.

- 1) Excellent control was noted with all 1 leaf applications. At 12 DAP, Control with Staple in the system was at least 96%. Control without Staple in the system ranged from 89 to 94%.
- 2) By 32 DAP, programs with at least 0.6 oz of Staple in the system provided excellent control. Two applications of glyphosate also provided excellent control.
- 3) By mid to late-season, control was poor in most systems do to no layby and several treatments not receiving an application past the 1st leaf stage. Greater than 80% control at late-season was noted only when sequential Staple plus glyphosate applications were made.
- 4) Envoke provided poor control.
- 5) When comparing sequential glyphosate applications to sequential glyphosate + Staple applications, Staple in the system did not statistically improve control but a 8 to 16% numerical increase in control was noted at mid- or late-season.

Florida pusley:

- 1) At 32 DAP, control was excellent in all systems except when Touchdown was applied alone. Following Envoke with Touchdown did not improve control.
- 2) Greater than 75% control at mid-season was only noted in systems that contained both a 1- and 5-leaf application or Touchdown plus Dual topical at 1-leaf.
- 3) Pusley could not be rated at late-season because it was too wooly.
- 4) When comparing sequential glyphosate applications to sequential glyphosate + Staple applications, Staple in the system did not improve control.

Texas panicum:

- 1) All 1-leaf and 5-leaf applications provided excellent control.
- 2) Envoke POST provided little control.
- 3) Greater than 90% mid-season control was noted with only systems containing 5-leaf glyphosate applications.
- 4) Late-season control was unacceptable in all plots, as expected without a layby. Again greatest control was noted in systems with 5-leaf glyphosate applications.
- 5) When comparing sequential glyphosate applications to sequential glyphosate + Staple applications, Staple in the system did not improve control.

Palmer amaranth:

- 1) Excellent early season control was noted with all systems.
- 2) Touchdown followed by Envoke was the least effective system. Palmer that emerged after the Touchdown applications was 4 to 8 inches tall and too large to control with Envoke. Putting Dual in with the Touchdown at 1-leaf provided residual control and pigweed was 1 inch or less when treated with Envoke where excellent control was noted.
- 3) At late-season, trends for greater control were noted with the more S-metolachlor or Staple in the system. Also, those systems that received a 1- and 5-leaf application were generally more effective than a single POT application.
- 4) When comparing sequential glyphosate applications to sequential glyphosate + Staple applications, Staple in the system improved control 19% at late-season.

Bristly Starbur:

- 1) Excellent control was noted when both a 1- and 5-leaf application or a 1- and 7-leaf application were made.
- 2) Mid-season control was only unacceptable when plots were not treated after the 1st leaf.

Florida beggarweed:

- 1) Early and mid-season control was excellent when 1- and 5-leaf applications were made.

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2) By late-season control was poor when plots were not treated after the 1-leaf stage and in the Envoke system that did not contain Dual. It appears the beggarweed emerged after the Touchdown fb Envoke treatments were made.

Sicklepod:

- 1) Early-season control was at least 89%.
- 2) Envoke and glyphosate mixtures provided excellent control.
- 3) Sicklepod did continue to emerge over the season.
- 4) Late-season control was greatest in systems containing sequential POT applications.

Trial could not be harvested because of SEVERE weed infestation.