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Cotton and weed response to trifloxysulfuron and prometryn applied in the previous fall.

Trial ID: C1-06

Study Dir.: Stanley Culpepper

Location: Ponder farm

Investigator: Stanley Culpepper

Reps: 4

Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 2 liters (min 1.5434)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
									1	2	3	4
1	Non-treated								101	202	301	403
2	Envoke	75	WG	0.00235	LB A/A	fall app	A	.05074 g/mx	102	210	309	411
3	Envoke	75	WG	0.0047	LB A/A	fall app	A	0.1015 g/mx	103	204	302	401
4	Envoke	75	WG	0.0094	LB A/A	fall app	A	0.2029 g/mx	104	209	311	409
5	Suprend	80	WG	0.25	LB A/A	fall app	A	5.06 g/mx	105	201	312	406
6	Suprend	80	WG	0.5	LB A/A	fall app	A	10.12 g/mx	106	212	305	410
7	Suprend	80	WG	1	LB A/A	fall app	A	20.24 g/mx	107	211	306	412
8	Caparol	4	L	0.25	LB A/A	fall app	A	8.445 ml/mx	108	206	310	407
	Envoke	75	WG	0.00235	LB A/A	fall app	A	.05074 g/mx				
9	Caparol	4	L	0.5	LB A/A	fall app	A	16.89 ml/mx	109	205	307	408
	Envoke	75	WG	0.0047	LB A/A	fall app	A	0.1015 g/mx				
10	Caparol	4	L	1	LB A/A	fall app	A	33.78 ml/mx	110	208	303	405
	Envoke	75	WG	0.0094	LB A/A	fall app	A	0.2029 g/mx				
11	Reflex	2	L	0.25	LB A/A	fall app	A	16.89 ml/mx	111	203	308	404
12	Reflex	2	L	0.25	LB A/A	fall app	A	16.89 ml/mx	112	207	304	402
	Direx	4	L	1	LB A/A	fall app	A	33.78 ml/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
0.888	g	Envoke	75	WG	
44.277	g	Suprend	80	WG	
73.894	ml	Caparol	4	L	
42.225	ml	Reflex	2	L	
42.225	ml	Direx	4	L	

* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine impact of fall Envoke applications to the following cotton crop.

VISUAL INJURY:

1. No visual crop injury was noted throughout the trial.

COTTON STAND COUNTS:

1. Cotton stand was not impacted by herbicide treatments.

SEED COTTON YIELD:

1. Yield was not impacted by treatments.

WEED RESPONSE:

1. Envoke, Suprend, and Reflex plus Direx provided good to excellent control of chickweed during mid-winter. Reflex alone provided poor control.
2. During mid-winter, swinecress control was excellent with Envoke (0.047 and >), Suprend (0.5 lb and >), and Reflex plus Direx.
3. Morningglory and sicklepod control was essentially non-existent in the cotton crop.

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GENERAL COMMENTS:

1. Nov. 17, 2005 land prepared conventionally.
2. April 15, 2006 WeatherMax applied for burndown.
3. April 24, 2006 Prowl applied PRE.
4. May 21, 2006 WeatherMax applied topically.
5. June 9, 2006 WeatherMax + Direx directed.

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Study Dir.: Stanley Culpepper

Location: Ponder farm

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Weed Code	GOSHI	GOSHI	GOSHI	GOSHI	STEME	COPSS	IPOLA	IPOLA		
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI		
Rating Data Type	injury	injury	injury	injury	control	control	control	control		
Rating Unit	%	%	%	%	%	%	%	%		
Rating Date	May-12-06	May-16-06	May-21-06	Aug-28-06	Feb-15-06	Feb-15-06	May-12-06	May-21-06		
Assessed By	SC	AD	SC		SC	SC	SC	SC		
Trt-Eval Interval	176 DA-A	180 DA-A	185 DA-A	282 DA-A	90 DA-A	90 DA-A	176 DA-A	185 DA-A		
ARM Action Codes										
# Subsamples, Dec.										
Trt Treatment	Rate									
No. Name	Rate	Unit	1	2	3	4	5	6	7	8
1 Non-treated			0 a	0 a	0 a	0 a	0 e	0 c	0 a	0 e
2 Envoke	0.00235	LB A/A	0 a	0 a	0 a	0 a	87 bc	78 b	0 a	16 cde
3 Envoke	0.0047	LB A/A	0 a	3 a	0 a	0 a	97 a	97 a	0 a	0 e
4 Envoke	0.0094	LB A/A	0 a	0 a	0 a	0 a	99 a	97 a	0 a	50 a
5 Suprend	0.25	LB A/A	0 a	0 a	0 a	0 a	93 ab	80 b	0 a	3 e
6 Suprend	0.5	LB A/A	0 a	0 a	0 a	0 a	93 ab	90 ab	0 a	10 de
7 Suprend	1	LB A/A	0 a	0 a	0 a	0 a	98 a	98 a	0 a	34 abc
8 Caparol	0.25	LB A/A	0 a	1 a	0 a	0 a	92 ab	79 b	0 a	0 e
Envoke	0.00235	LB A/A								
9 Caparol	0.5	LB A/A	0 a	0 a	0 a	0 a	96 a	94 a	0 a	24 bcd
Envoke	0.0047	LB A/A								
10 Caparol	1	LB A/A	0 a	1 a	0 a	0 a	98 a	98 a	0 a	39 ab
Envoke	0.0094	LB A/A								
11 Reflex	0.25	LB A/A	0 a	1 a	0 a	0 a	28 d	86 ab	0 a	0 e
12 Reflex	0.25	LB A/A	0 a	0 a	0 a	0 a	83 c	93 a	0 a	5 de
Direx	1	LB A/A								
LSD (P=.05)			0.0	2.8	0.0	0.0	6.7	11.3	0.0	17.6
Standard Deviation			0.0	2.0	0.0	0.0	4.7	7.8	0.0	12.2
CV			0.0	374.46	0.0	0.0	5.82	9.49	0.0	81.24
Bartlett's X2			0.0	2.471	0.0	0.0	29.685	18.651	0.0	13.456
P(Bartlett's X2)			.	0.481	.	.	0.001*	0.045*	.	0.062

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

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Weed Code	CASOB	stand ct	stand ct	stand ct	plant 1	plant 2	plant 3	plant 4	
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Rating Data Type	control	# row 1	# row 2	#	ht	ht	ht	ht	
Rating Unit	%	6ft/plot	6ft/plot	12 rowft	cm	cm	cm	cm	
Rating Date	May-12-06	May-12-06	May-12-06	May-12-06	May-16-06	May-16-06	May-16-06	May-16-06	
Assessed By	SC								
Trt-Eval Interval	176 DA-A	176 DA-A	176 DA-A	176 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	
ARM Action Codes				T2					
# Subsamples, Dec.				1					
Trt Treatment	Rate								
No. Name	Rate Unit	9	10	11	12	13	14	15	16
1 Non-treated		0 a	15 a	15 a	30.0 a	6 ab	6 ab	7 a	6 a
2 Envoke	0.00235 LB A/A	0 a	16 a	16 a	31.3 a	6 ab	5 ab	7 ab	6 a
3 Envoke	0.0047 LB A/A	0 a	15 a	16 a	31.0 a	4 ab	6 ab	6 ab	4 a
4 Envoke	0.0094 LB A/A	0 a	17 a	17 a	33.8 a	6 ab	5 ab	6 ab	4 a
5 Suprend	0.25 LB A/A	0 a	17 a	15 a	31.5 a	5 ab	7 a	5 b	5 a
6 Suprend	0.5 LB A/A	0 a	18 a	17 a	34.5 a	6 ab	5 ab	6 ab	5 a
7 Suprend	1 LB A/A	0 a	18 a	14 a	31.8 a	4 b	4 b	5 ab	6 a
8 Caparol	0.25 LB A/A	0 a	19 a	15 a	33.8 a	6 ab	6 ab	6 ab	5 a
Envoke	0.00235 LB A/A								
9 Caparol	0.5 LB A/A	0 a	17 a	18 a	34.8 a	4 ab	4 b	6 ab	6 a
Envoke	0.0047 LB A/A								
10 Caparol	1 LB A/A	0 a	16 a	19 a	34.5 a	6 ab	7 a	5 ab	6 a
Envoke	0.0094 LB A/A								
11 Reflex	0.25 LB A/A	0 a	17 a	15 a	32.5 a	7 a	5 ab	7 ab	6 a
12 Reflex	0.25 LB A/A	0 a	15 a	16 a	31.3 a	6 ab	6 ab	7 ab	4 a
Direx	1 LB A/A								
LSD (P=.05)		0.0	4.4	4.4	6.45	2.6	2.1	2.1	2.6
Standard Deviation		0.0	3.0	3.0	4.46	1.8	1.4	1.4	1.8
CV		0.0	18.3	18.9	13.72	33.76	25.81	23.93	34.85
Bartlett's X2		0.0	10.262	7.186	10.569	14.585	7.188	16.062	16.951
P(Bartlett's X2)		.	0.507	0.784	0.48	0.202	0.784	0.139	0.109

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

Column 12: T2 = [C10]+[C11]

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Weed Code	plant 5	plant 6	plant 7	plant 8	plant 9	plant 10	Avg.10pl	Seed Yld
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	ht	ht	ht	ht	ht	ht	ht	wt/plot
Rating Unit	cm	cm	cm	cm	cm	cm	cm	lb
Rating Date	May-16-06	May-16-06	May-16-06	May-16-06	May-16-06	May-16-06	May-16-06	Sep-05-06
Assessed By	180 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	290 DA-A
Trt-Eval Interval	180 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	180 DA-A	290 DA-A
ARM Action Codes							T1	
# Subsamples, Dec.							1	
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit
	17	18	19	20	21	22	23	24
1 Non-treated	6 a	7 a	6 a	6 a	6 abc	5 ab	6.1 a	13 a
2 Envoke 0.00235 LB A/A	5 a	7 a	6 a	6 a	4 cd	6 ab	5.8 ab	14 a
3 Envoke 0.0047 LB A/A	4 a	6 ab	4 a	6 a	5 bcd	5 ab	5.0 ab	13 a
4 Envoke 0.0094 LB A/A	5 a	5 ab	4 a	5 a	6 abc	5 b	5.0 ab	13 a
5 Suprend 0.25 LB A/A	6 a	5 ab	7 a	6 a	6 abc	6 ab	5.7 ab	13 a
6 Suprend 0.5 LB A/A	7 a	6 ab	5 a	5 a	6 abc	6 ab	5.7 ab	14 a
7 Suprend 1 LB A/A	4 a	4 b	5 a	6 a	6 abc	5 ab	4.8 b	14 a
8 Caparol 0.25 LB A/A	4 a	5 ab	6 a	5 a	5 a-d	5 ab	5.1 ab	13 a
Envoke 0.00235 LB A/A								
9 Caparol 0.5 LB A/A	5 a	4 b	6 a	5 a	5 bcd	5 ab	5.0 ab	13 a
Envoke 0.0047 LB A/A								
10 Caparol 1 LB A/A	6 a	5 ab	4 a	4 a	4 d	4 b	5.0 ab	13 a
Envoke 0.0094 LB A/A								
11 Reflex 0.25 LB A/A	4 a	5 ab	7 a	7 a	7 a	7 a	6.0 a	14 a
12 Reflex 0.25 LB A/A	5 a	6 ab	7 a	6 a	6 ab	5 ab	5.8 ab	13 a
Direx 1 LB A/A								
LSD (P=.05)	2.7	2.0	2.3	2.2	1.7	1.8	1.01	1.6
Standard Deviation	1.9	1.4	1.6	1.5	1.2	1.3	0.70	1.1
CV	37.04	26.09	29.19	27.11	21.44	24.13	12.88	8.36
Bartlett's X2	4.529	8.152	16.174	12.273	11.834	8.414	15.335	9.422
P(Bartlett's X2)	0.952	0.70	0.135	0.343	0.376	0.676	0.168	0.583

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

Column 23: T1 = @AVG([C13].[C22])

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Weed Code		Seed Yld	
Crop Code		GOSHI	
Rating Data Type		YIELD	
Rating Unit		LB/A	
Rating Date		Sep-05-06	
Assessed By			
Trt-Eval Interval		290 DA-A	
ARM Action Codes		TY3	
# Subsamples, Dec.		1	
Trt No.	Treatment Name	Rate	Unit
			25
1	Non-treated		3919.7 a
2	Envoke	0.00235 LB A/A	3933.5 a
3	Envoke	0.0047 LB A/A	3839.1 a
4	Envoke	0.0094 LB A/A	3842.0 a
5	Suprend	0.25 LB A/A	3762.1 a
6	Suprend	0.5 LB A/A	3964.0 a
7	Suprend	1 LB A/A	4173.0 a
8	Caparol	0.25 LB A/A	3859.4 a
	Envoke	0.00235 LB A/A	
9	Caparol	0.5 LB A/A	3839.1 a
	Envoke	0.0047 LB A/A	
10	Caparol	1 LB A/A	3643.1 a
	Envoke	0.0094 LB A/A	
11	Reflex	0.25 LB A/A	4016.2 a
12	Reflex	0.25 LB A/A	3762.1 a
	Direx	1 LB A/A	
LSD (P=.05)			468.39
Standard Deviation			324.39
CV			8.36
Bartlett's X2			9.423
P(Bartlett's X2)			0.583

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

Column 25: TY3 = 290.4*[24]

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MAINTENANCE

Field Prep./Maintenance:

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

SOIL DESCRIPTION

% Sand: 94	% OM: 1.1	Texture: sand	
% Silt: 2	pH: 6.1	Soil Name: Tifton sandy loam	
% Clay: 4	CEC: _____	Fert. Level: _____	

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: irrigated

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A
Application Date:	Nov-19-05
Time of Day:	6 pm
Application Method:	broadcast
Application Timing:	fall app
Applic. Placement:	bare soil
Air Temp., Unit:	68 F
% Relative Humidity:	38
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	64 F
Soil Moisture:	moist
% Cloud Cover:	75

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI fall app
Stage Scale:	not up
Height, Unit:	0 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	COPSS fall app
Stage Scale:	not up
Density, Unit:	10 ydsq
Weed 2 Code, Stage:	STEME fall app
Stage Scale:	not up
Density, Unit:	5 ydsq

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	2
Band Width, Unit:	
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	14.8 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment