

# DETERMINE IF ADDITION OF PYROXASULFONE WHEN MIXED AT A 1.6:1 RATIO OF LACTOFEN TO PYROXASULFONE FOR LAYBY CONTROL. PRE CONTROL OF PALMER, SIDA & ANNUAL GRASSES COMPARED TO COBRA ALONE.

## General Trial Information

Study Director: VALENT  
Investigator: Donnie Miller

## Trial Location

City: ST. JOSEPH  
State/Prov.: LA  
Postal Code: 71366

## Crop Description

Crop 1: GOSHI Gossypium hirsutum American upland cotton  
Variety: FM 1740B2F  
BBCH Scale: BCOT Planting Date: Apr-26-2011  
Seed Bed: COMPAC compacted  
Harvested Width, Unit: 6.67 FT Harvested Length, Unit: 25 FT

## Pest Description

Pest 1 Type: W Code: ECHCG Echinochloa crus-galli  
Common Name: Common barnyardgrass

Pest 2 Type: W Code: SEBEX Sesbania exaltata  
Common Name: Hemp sesbania

Pest 3 Type: W Code: IPOLA Ipomoea lacunosa  
Common Name: Pitted morningglory

Pest 4 Type: W Code: IPOHG Ipomoea hederacea integruscul  
Common Name: Entireleaf morningglory

Pest 5 Type: W Code: AMARE Amaranthus retroflexus  
Common Name: Redroot pigweed

Pest 6 Type: W Code: CASOB Cassia obtusifolia  
Common Name: Sickie pod

Pest 7 Type: W Code: ELEIN Eleusine indica  
Common Name: Goosegrass

## Site and Design

Plot Width, Unit: 6.67 FT  
Plot Length, Unit: 25 FT  
Plot Area, Unit: 166.75 FT2  
Replications: 4 Study Design: RACOB L Randomized Complete Block (RCB)

## Soil Description

Description Name: SOUTH TRACTOR CUT  
% Sand: 50 % OM: 0.5 Texture: SIL silt loam  
% Silt: 28 pH: 6.8  
% Clay: 22 CEC: 12.8

## Application Description

**A**  
Application Date: Aug-15-2011  
Time of Day: 3:15 PM  
Application Method: SPRAY  
Application Timing: LAYBY  
Application Placement: BRODIR  
Applied By: MILLER  
Air Temperature, Unit: 93 F  
% Relative Humidity: 39  
Wind Velocity, Unit: 3.6 MPH  
Dew Presence (Y/N): N no  
Soil Temperature, Unit: 89 F  
% Cloud Cover: 0

## Crop Stage At Each Application

**A**  
Crop 1 Code, BBCH Scale: GOSHI BCOT  
Stage Scale Used: 14-16 NOD

## Pest Stage At Each Application

**A**  
Pest 1 Code, Type, Scale: ECHCG W  
"  
Height Minimum, Maximum: 6 8  
Pest 2 Code, Type, Scale: SEBEX W  
"  
Height Minimum, Maximum: 1 3  
Pest 3 Code, Type, Scale: IPOLA W  
"  
Height Minimum, Maximum: 1 3  
Pest 4 Code, Type, Scale: IPOHG W  
"  
Height Minimum, Maximum: 1 3  
Pest 5 Code, Type, Scale: AMARE W  
"  
Height Minimum, Maximum: 1 3  
Pest 6 Code, Type, Scale: CASOB W  
"  
Height Minimum, Maximum: 1  
Pest 7 Code, Type, Scale: ELEIN W  
"  
Height Minimum, Maximum: 6 8

## Application Equipment

**A**  
Appl. Equipment: TRACTOR  
Operation Pressure, Unit: 28 PSI  
Nozzle Type: TK  
Nozzle Size: 2.5  
Nozzle Spacing, Unit: 40 IN  
Nozzles/Row: 1  
Ground Speed, Unit: 3.2 MPH  
Spray Volume, Unit: 15 gal/ac  
Mix Size, Unit: 1 gallons

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ECHCG	SEBEX	IPOLA	IPOHG	AMARE	CASOB	ELEIN
Pest Scientific Name	Echinochloa cr>	Sesbania exalt>	Ipomoea lacuno>	Ipomoea heder>	Amaranthus ret>	Cassia obtusif>	Eleusine indica
Pest Name	Common barnyar>	Hemp sesbania	Pitted morning>	Entireleaf mor>	Redroot pigweed	Sickle pod	Goosegrass
Crop Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	Aug-22-2011	Aug-31-2011	Aug-31-2011	Aug-31-2011	Aug-31-2011	Aug-31-2011	Aug-31-2011
Rating Type	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Rating Timing	7 DAT	16 DAT	16 DAT	16 DAT	16 DAT	16 DAT	16 DAT
Days After First/Last Applic.	7 7	16 16	16 16	16 16	16 16	16 16	16 16
Trt-Eval Interval	7 DA-A	16 DA-A	16 DA-A	16 DA-A	16 DA-A	16 DA-A	16 DA-A
Plant-Eval Interval	118 DP-1	127 DP-1	127 DP-1	127 DP-1	127 DP-1	127 DP-1	127 DP-1
ARM Action Codes							
Number of Decimals							

Trt No.	Treatment Name	Rate	Appl Unit	Code	1	2	3	4	5	6	7	8	9
1	COBRA	8	oz/a	A	0.0	a 66.3	bc 95.0	a 100.0	a 100.0	a 100.0	a 95.0	a 81.3	a 0.0
	COC	1	pt/a	A									a
2	COBRA	10	oz/a	A	0.0	a 75.0	abc 95.0	a 100.0	a 100.0	a 100.0	a 100.0	a 83.8	a 0.0
	COC	1	pt/a	A									a
3	COBRA	12	oz/a	A	0.0	a 78.8	ab 93.8	a 100.0	a 100.0	a 100.0	a 100.0	a 91.3	a 0.0
	COC	1	pt/a	A									a
4	COBRA	8	oz/a	A	0.0	a 61.3	bc 96.3	a 100.0	a 100.0	a 100.0	a 96.3	a 88.8	a 0.0
	V-10206	1.5	oz/a	A									a
	COC	1	pt/a	A									
5	COBRA	10	oz/a	A	0.0	a 75.0	abc 98.8	a 100.0	a 100.0	a 100.0	a 97.5	a 93.8	a 0.0
	V-10206	1.87	oz/a	A									a
	COC	1	pt/a	A									
6	COBRA	12	oz/a	A	0.0	a 71.3	abc 85.0	a 100.0	a 100.0	a 100.0	a 95.0	a 87.5	a 0.0
	V-10206	2.25	oz/a	A									a
	COC	1	pt/a	A									
7	PREFIX	1.5	oz/a	A	0.0	a 57.5	c 86.3	a 90.0	b 90.0	b 97.5	a 90.0	a 78.8	a 0.0
	COC	1	pt/a	A									a
8	VALOR	2	oz/a	A	0.0	a 88.8	a 95.0	a 100.0	a 100.0	a 100.0	a 100.0	a 95.0	a 0.0
	DIURON	1.5	pt/a	A									a
	MSMA	40	oz/a	A									
	NIS	0.25	% v/v	A									
9	FIERCE	3	oz/a	A	0.0	a 91.3	a 91.3	a 100.0	a 100.0	a 100.0	a 100.0	a 91.3	a 0.0
	DIURON	1.5	pt/a	A									a
	MSMA	40	oz/a	A									
	NIS	0.25	% v/v	A									
LSD (P=.05)					0.00	20.08	9.99	5.62	5.62	2.43	9.06	11.34	0.00
Standard Deviation					0.00	13.76	6.85	3.85	3.85	1.67	6.21	7.77	0.00
CV					0.0	18.62	7.37	3.89	3.89	1.67	6.39	8.84	0.0
Bartlett's X2					0.0	9.973	7.866	0.0	0.0	0.0	3.834	8.758	0.0
P(Bartlett's X2)					.	0.267	0.447	.	.	.	0.429	0.363	.
Replicate F					0.000	1.927	2.622	1.000	1.000	1.000	0.162	0.594	0.000
Replicate Prob(F)					1.0000	0.1521	0.0738	0.4098	0.4098	0.4098	0.9208	0.6247	1.0000
Treatment F					0.000	2.752	1.800	3.000	3.000	1.000	1.216	2.097	0.000
Treatment Prob(F)					1.0000	0.0261	0.1267	0.0176	0.0176	0.4613	0.3316	0.0769	1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed												
Pest Code	ECHCG	SEBEX	IPOLA	IPOHG	AMARE	CASOB	ELEIN	PANRA													
Pest Scientific Name	Echinochloa cr>	Sesbania exalt>	Ipomoea lacuno>	Ipomoea heder>	Amaranthus ret>	Cassia obtusif>	Eleusine indica	Panicum ramosum													
Pest Name	Common barnyar>	Hemp sesbania	Pitted morning>	Entireleaf mor>	Redroot pigweed	Sickle pod	Goosegrass	Browntop millet													
Crop Code																					
BBCH Scale																					
Crop Scientific Name																					
Crop Name																					
Rating Date	Sep-19-2011	Sep-19-2011	Sep-19-2011	Sep-19-2011	Sep-19-2011	Sep-19-2011	Sep-19-2011	Sep-19-2011	Sep-19-2011												
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY												
Rating Unit	%	%	%	%	%	%	%	%	%												
Number of Subsamples	1	1	1	1	1	1	1	1	1												
Rating Timing																					
Days After First/Last Applic.	35 35	35 35	35 35	35 35	35 35	35 35	35 35	35 35	35 35												
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A												
Plant-Eval Interval	146 DP-1	146 DP-1	146 DP-1	146 DP-1	146 DP-1	146 DP-1	146 DP-1	146 DP-1	146 DP-1												
ARM Action Codes																					
Number of Decimals																					
Trt Treatment																					
Rate Appl																					
No. Name	Rate	Unit	Code	10	11	12	13	14	15	16	17	18									
1 COBRA	8	oz/a	A	80.0	cd	97.5	a	100.0	a	100.0	a	92.5	ab	91.3	a	58.8	a	0.0	a		
COC	1	pt/a	A																		
2 COBRA	10	oz/a	A	90.0	abc	97.5	a	100.0	a	100.0	a	100.0	a	87.5	a	57.5	a	0.0	a		
COC	1	pt/a	A																		
3 COBRA	12	oz/a	A	83.8	bcd	100.0	a	100.0	a	100.0	a	98.8	a	92.5	a	87.5	a	0.0	a		
COC	1	pt/a	A																		
4 COBRA	8	oz/a	A	78.8	d	98.8	a	100.0	a	100.0	a	100.0	a	86.3	b	86.3	a	58.8	a	0.0	a
V-10206	1.5	oz/a	A																		
COC	1	pt/a	A																		
5 COBRA	10	oz/a	A	80.0	cd	97.5	a	98.8	a	100.0	a	100.0	a	97.5	a	97.5	a	72.5	a	0.0	a
V-10206	1.87	oz/a	A																		
COC	1	pt/a	A																		
6 COBRA	12	oz/a	A	88.8	a-d	96.3	a	100.0	a	100.0	a	97.5	a	96.3	a	95.0	a	73.8	a	0.0	a
V-10206	2.25	oz/a	A																		
COC	1	pt/a	A																		
7 PREFIX	1.5	oz/a	A	82.5	bcd	95.0	a	100.0	a	100.0	a	97.5	a	100.0	a	85.0	a	76.3	a	0.0	a
COC	1	pt/a	A																		
8 VALOR	2	oz/a	A	96.3	a	95.0	a	100.0	a	100.0	a	100.0	a	100.0	a	98.8	a	77.5	a	0.0	a
DIURON	1.5	pt/a	A																		
MSMA	40	oz/a	A																		
NIS	0.25	% v/vA																			
9 FIERCE	3	oz/a	A	91.3	ab	98.8	a	100.0	a	100.0	a	100.0	a	98.8	a	93.8	a	95.0	a	0.0	a
DIURON	1.5	pt/a	A																		
MSMA	40	oz/a	A																		
NIS	0.25	% v/vA																			
LSD (P=.05)				10.42		5.58		1.22		0.00		3.78		8.48		11.02		37.16		0.00	
Standard Deviation				7.14		3.83		0.83		0.00		2.59		5.81		7.55		25.46		0.00	
CV				8.33		3.93		0.83		0.0		2.61		6.0		8.22		34.85		0.0	
Bartlett's X2				16.796		10.999		0.0		0.0		1.52		5.935		9.87		9.685		0.0	
P(Bartlett's X2)				0.032*		0.139		.		.		0.468		0.204		0.274		0.268		.	
Replicate F				8.159		5.233		1.000		0.000		0.379		0.954		1.055		3.349		0.000	
Replicate Prob(F)				0.0006		0.0064		0.4098		1.0000		0.7688		0.4305		0.3866		0.0358		1.0000	
Treatment F				2.918		0.794		1.000		0.000		0.724		2.599		1.673		1.058		0.000	
Treatment Prob(F)				0.0200		0.6128		0.4613		1.0000		0.6689		0.0335		0.1567		0.4231		1.0000	

Means followed by same letter do not significantly differ (P=.05, LSD)  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Code	GOSHI	GOSHI	
BBCH Scale	BCOT	BCOT	
Crop Scientific Name	Gossypium hirs>	Gossypium hirs>	
Crop Name	American uplan>	American uplan>	
Rating Date	Oct-11-2011	Oct-11-2011	
Rating Type	YIELD	YIELD	
Rating Unit	LB	LB/A	
Number of Subsamples	1	1	
Rating Timing			
Days After First/Last Applic.	57 57	57 57	
Trt-Eval Interval	57 DA-A	57 DA-A	
Plant-Eval Interval	168 DP-1	168 DP-1	
ARM Action Codes			
Number of Decimals		1	
Trt	Treatment	Rate	Appl
No.	Name	Rate	Code
		Unit	
			19
			20
1	COBRA	8 oz/a	A
	COC	1 pt/a	A
2	COBRA	10 oz/a	A
	COC	1 pt/a	A
3	COBRA	12 oz/a	A
	COC	1 pt/a	A
4	COBRA	8 oz/a	A
	V-10206	1.5 oz/a	A
	COC	1 pt/a	A
5	COBRA	10 oz/a	A
	V-10206	1.87 oz/a	A
	COC	1 pt/a	A
6	COBRA	12 oz/a	A
	V-10206	2.25 oz/a	A
	COC	1 pt/a	A
7	PREFIX	1.5 oz/a	A
	COC	1 pt/a	A
8	VALOR	2 oz/a	A
	DIURON	1.5 pt/a	A
	MSMA	40 oz/a	A
	NIS	0.25 % v/vA	
9	FIERCE	3 oz/a	A
	DIURON	1.5 pt/a	A
	MSMA	40 oz/a	A
	NIS	0.25 % v/vA	
LSD (P=.05)		2.5285	660.52
Standard Deviation		1.7283	451.48
CV		36.66	36.66
Bartlett's X2		6.169	6.169
P(Bartlett's X2)		0.628	0.628
Replicate F		1.687	1.687
Replicate Prob(F)		0.1976	0.1976
Treatment F		1.368	1.368
Treatment Prob(F)		0.2619	0.2619

Means followed by same letter do not significantly differ (P=.05, LSD)  
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.