Mar-02-04 (C41-03) Site Description Page 1 of 8

University of Georgia

Weed management systems in LL and RR cotton

Trial ID: C41-03 Study Dir.: Stanley Culpepper Location: Ponder farm Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

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

Trial Status: completed City: TyTy Initiation Date: May-20-03 Country: USA State/Prov.: GA Postal Code: 31794

Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N

CROP AND PEST DESCRIPTION

Weed1.ACHNIBristly Starbur2.AMAPAPalmer amaranthWeed3.DEDTOFlorida beggarweed4.PANTETexas panicumWeed5.IAQTASmallflower mg6.CASOBSicklepod

Crop 1:GOSHI cotton Variety: various Planting Date: May-20-03
Planting Method: conventional Rate: 3 seed/ft Depth: 0.5 in Crop 1:GOSHI cotton Variety: various

Row Spacing: 36 inch Seed Bed: bedded

Soil Temperature: 76 F Soil Moisture: moist Emergence Date: May-24-03

Plot Width, Unit: 12 FT Plot Length, Unit: 20 FT Reps: 4

Site Type: Research station

Tillage Type: conventional Study Design: SPLIT-PLOT

SOIL DESCRIPTION

Texture: sand % OM: 1.1 % Sand: 94 % Silt: 2 % Clay: 4

APPLICATION DESCRIPTION

pH: 5.5

A B C D E Application Date: May-20-03 Jun-04-03 Jun-09-03 Jun-22-03 Jul-04-03 Jul-14-03 12 pm 6 pm 9 am 9 am 9 am Time of Day: Application Method: broadcast broadcast broadcast broadcast broadcast Application Timing: PRE POST1 POST2 POST3 PDIR1 PDIR2 Applic. Placement: on soil overtop overtop overtop directed directed Air Temp., Unit: 78 F 90 F 82 F 78 F 78 F 83 F % Relative Humidity: 63 40 65 70 70 56 Wind Velocity, Unit: 2 mph 0 mph 3 mph 2 mph 2 mph 2 mph

 Dew Presence (Y/N):
 n
 n
 y
 y

 Soil Temp., Unit:
 82
 Y
 92
 F
 80
 F
 82
 F

 75 F 83 F Soil Moisture: wet wet wet wet wet \$ Cloud Cover: 100 40 35 90 90 wet

CROP STAGE AT EACH APPLICATION E A B C D E POST1 POST2 POST3 Crop 1 GOSHI Stage: PRE PDIR FD-V13 POST1 POST2 POST3 PDIR V1-V2 V3 V8 V10 PDIR2 Stage Scale: Height, Unit: . V1-V2 V3 V8 V10 V13 0. 3 inch 6 inch 15 inch 25 inch 34 inch

50

Mar-02-04 (C41-03) Site Description Page 2 of 8

University of Georgia

Density, Unit:		WEED	STAGE AT EA	ACH APPLICA	TION		
Stage Scale: . <3 inch		A	В	С	D	E	F
Density, Unit:	Weed 1 ACHNI Stage:	PRE	POST1	POST 2	POST 3	PDIR 1	PDIR 2
Weed 2 AMAPA Stage: PRE POST1 POST 2 POST 3 PDIR 1 PDIR 2 Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit: . . 4 ydsq Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit: . . <5 ydsq Weed 4 PANTE Stage: PRE PRE PRE POST1 POST 2 POST 3 PDIR 1 PDIR 2 PDIR 2 PDIR 2 PDIR 3 PDIR 1 PDIR 2 PDIR 3 PDIR 3 PDIR 3	Stage Scale:		<3 inch	<6 inch	see comm	see comm	see comm
Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit: . . . 4 ydsq . <th>Density, Unit:</th> <th></th> <th></th> <th>3 ydsq</th> <th></th> <th></th> <th></th>	Density, Unit:			3 ydsq			
Density, Unit:	Weed 2 AMAPA Stage:	PRE	POST1	POST 2	POST 3	PDIR 1	PDIR 2
Weed 3 DEDTO Stage: PRE POST1 POST 2 POST 3 PDIR 1 PDIR 2 Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit: Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit: . . . 90ST 2 POST 3 PDIR 1 PDIR 2 Stage Scale: Density, Unit: . <td< th=""><th>Stage Scale:</th><th>•</th><th><3 inch</th><th><6 inch</th><th>see comm</th><th>see comm</th><th>see comm</th></td<>	Stage Scale:	•	<3 inch	<6 inch	see comm	see comm	see comm
Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit:	Density, Unit:			4 ydsq			
Density, Unit:	Weed 3 DEDTO Stage:	PRE	POST1	POST 2	POST 3	PDIR 1	PDIR 2
Weed 4 PANTE Stage: PRE POST1 POST 2 POST 3 PDIR 1 PDIR 2 Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit: . <th>Stage Scale:</th> <th>•</th> <th><3 inch</th> <th><6 inch</th> <th>see comm</th> <th>see comm</th> <th>see comm</th>	Stage Scale:	•	<3 inch	<6 inch	see comm	see comm	see comm
Stage Scale: . <3 inch <6 inch see comm see comm see comm Density, Unit:	Density, Unit:			5 ydsq			
Density, Unit:	Weed 4 PANTE Stage:	PRE	POST1	POST 2	POST 3	PDIR 1	PDIR 2
<pre>Weed 5 IAQTA Stage: PRE</pre>	Stage Scale:	•	<3 inch	<6 inch	see comm	see comm	see comm
Stage Scale: . <3 inch <6 inch see comm see comm Density, Unit:	Density, Unit:			12 ydsq			
Density, Unit:	Weed 5 IAQTA Stage:	PRE	POST1	POST 2	POST 3	PDIR 1	PDIR 2
	_			<6 inch	see comm	see comm	see comm
Weed 6 CASOB Stage: PRE POST1 POST 2 POST 3 PDIR 1 PDIR 2	Density, Unit:			3 ydsq			
1001 0 11001 1 1001 1 1001 0 11111 1 11111 1	Weed 6 CASOB Stage:	PRE	POST1	POST 2	POST 3	PDIR 1	PDIR 2
Stage Scale: . <3 inch <6 inch see comm see comm	_				see comm	see comm	see comm
Density, Unit: 1 ydsq	Density, Unit:			1 ydsq			

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	2	A	1	3	(2	I)	1	E	1	F
Appl. Equipment:	back	pack	backı	pack	backı	pack	backı	pack	backı	pack	back	pack
Operating Pressure:	22		22		22		22		19		19	
Nozzle Type:	flat	fan	flat	fan	flat	fan	flat	fan	flat	fan	flat	fan
Nozzle Size:	11002	2	11002	2	11002	2	11002	2	1100	2	1100	2
Nozzle Spacing, Unit	:18	inch	18	inch	18	inch	18	inch	12	inch	12	inch
Nozzles/Row:	2		2		2		2		3		3	
Boom Length, Unit:	4.5	feet	4.5	feet	4.5	feet	4.5	feet	2	feet	2	feet
Boom Height, Unit:	15	inch	15	inch	15	inch	15	inch	12	inch	12	inch
Ground Speed, Unit:	3	mph	3	mph	3	mph	3	mph	3	mph	3	mph
Carrier:	wate	_	wate	_	wate	_	wate	r	wate:	r	wate:	r
Spray Volume, Unit:	14.8	GPA	14.8	GPA	14.8	GPA	14.8	GPA	14.8	GPA	14.8	GPA
Propellant:	CO2		CO2		CO2		CO2		CO2		CO2	
Tank Mix (Y/N):	Y		Y		Y		Y		Y		Y	

University of Georgia Weed management systems in LL and RR cotton

Trial ID: C41-03 Study Dir.: Stanley Culpepper Investigator: Stanley Culpepper Location: Ponder farm

Loca	tion: Ponder	Larm	Invest	igator: S	Stanley Cu	ıpepper				
Wee	ed Code			ACHNI	ACHNI	AMAPA	AMAPA	DEDTO	DEDTO	PANTE
Crop	Code		GOSHI							
Rati	ng Data Type		injury	control	control	control	control	control	control	control
	ng Unit		percent	percent			percent	percent	percent	percent
	ng Date		Jul-03-03	Jul-03-03		Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03	Jul-03-03
	Eval Interval		-6199 DA	001 00 00	000 02 00	001 00 00	00p 02 00	001 00 00	00p 02 00	001 00 00
	Treatment	Rate	-0199 DA							
_			4	_	_	4	_	0	7	0
	Name	Rate Unit	1	2	3	4	5	6	7	8
1	Liberty Link		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Untreated									
2	Liberty Link		0.0	96.3	99.0	98.0	99.0	92.3	99.0	92.5
	Overtop one	32 fl oz/a								
	Overtop two	32 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
3	Liberty Link	0.20 /0	0.0	99.0	99.0	99.0	99.0	99.0	99.0	97.5
	Prowl	2.4 pt/a	0.0	00.0	00.0	00.0	00.0	00.0	00.0	01.0
	Overtop one	32 fl oz/a								
	Overtop two	32 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v				22 -				
4	Liberty Link		0.0	99.0	99.0	99.0	99.0	99.0	99.0	94.8
	Overtop one	32 fl oz/a								
	Overtop two	32 fl oz/a								
	Dual Magnum	1.33 pt/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
5	Liberty Link		0.0	98.0	99.0	98.0	99.0	95.8	99.0	90.3
	Overtop one	32 fl oz/a		00.0	00.0	00.0	00.0	00.0	00.0	00.0
	Overtop two	32 fl oz/a								
	Staple	0.6 oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
6	Liberty Link		0.0	87.0	99.0	89.8	93.8	96.8	98.8	57.5
	Overtop two	32 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
7	Liberty Link		0.0	89.3	99.0	95.5	99.0	99.0	99.0	89.0
	Prowl	2.4 pt/a				-	-			-
	Overtop two	32 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
0		U.ZU 70 V/V	0.0	00.0	00.0	00.0	00.0	00.0	00.0	07.0
8	Liberty Link	0.4 .44	0.0	99.0	99.0	99.0	99.0	99.0	99.0	97.0
	Prowl	2.4 pt/a								
	Cotoran	1.0 qt/a								
	Overtop two	32 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
9	Liberty Link		0.0	92.3	99.0	88.8	99.0	93.3	99.0	62.3
	Overtop two	32 fl oz/a								
	Staple	0.6 oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.0 pt/a 2.4 pt/a								
	Surfac 820	0.25 % v/v								

_					J					
	ed Code			ACHNI	ACHNI	AMAPA	AMAPA	DEDTO	DEDTO	PANTE
	o Code		GOSHI							
	ng Data Type		injury	control						
	ng Unit		percent							
	ng Date		Jul-03-03	Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03	Jul-03-03
	Eval Interval	Data	-6199 DA							
	Treatment	Rate	1	2	2	4	E	6	7	0
	Name Roundup Ready	Rate Unit	0.0	0.0	0.0	0.0	5 0.0	6 0.0	7 0.0	8
10	Untreated		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Roundup Ready		0.8	99.0	99.0	99.0	99.0	99.0	99.0	97.5
''	Overtop one	21.3 fl oz/a	0.0	33.0	33.0	33.0	33.0	33.0	33.0	37.0
	Overtop two	21.3 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
12	Roundup Ready		0.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
	Prowl	2.4 pt/a								
	Overtop one	21.3 fl oz/a								
	Overtop two	21.3 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
40	Surfac 820	0.25 % v/v	44.5	00.0	00.0	00.0	00.0	00.0	00.0	00.5
13	Roundup Ready	04.0 fl a=/a	14.5	99.0	99.0	99.0	99.0	99.0	99.0	96.5
	Overtop one	21.3 fl oz/a 21.3 fl oz/a								
	Overtop two Dual Magnum	1.33 pt/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.0 pt/a 2.4 pt/a								
	Surfac 820	0.25 % v/v								
14	Roundup Ready	0.20 /0	2.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0
	Overtop one	21.3 fl oz/a								
	Overtop two	21.3 fl oz/a								
	Staple	0.6 oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
15	Roundup Ready	040 (1 /	0.8	93.3	99.0	98.0	99.0	97.0	99.0	87.0
	Overtop two	21.3 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6 Surfac 820	2.4 pt/a 0.25 % v/v								
16	Roundup Ready	U.2J /0 V/V	0.5	98.5	99.0	99.0	99.0	98.0	99.0	94.3
10	Prowl	2.4 pt/a	0.5	55.5	33.0	55.0	55.0	55.0	55.0	J . T.U
	Overtop two	21.3 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
17	Roundup Ready		0.0	98.5	99.0	98.5	99.0	98.5	99.0	93.3
	Prowl	2.4 pt/a								
	Cotoran	1.0 qt/a								
	Overtop two	21.3 fl oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								

			_		-	· · · · · · ·				
Wee	ed Code			ACHNI	ACHNI	AMAPA	AMAPA	DEDTO	DEDTO	PANTE
Cro	o Code		GOSHI							
Rati	ng Data Type		injury	control	control	control	control	control	control	control
Rati	ng Unit		percent	percent	percent	percent	percent	percent	percent	percent
Rati	ng Date		Jul-03-03	Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03	Jul-03-03
Trt-E	Eval Interval		-6199 DA							
Trt	Treatment	Rate								
No.	Name	Rate Unit	1	2	3	4	5	6	7	8
18	Roundup Ready		1.5	97.5	99.0	97.5	99.0	98.0	99.0	90.8
	Overtop two	21.3 fl oz/a	1							
	Staple	0.6 oz/a								
	Caparol	2.0 pt/a								
	MSMA 6.6	2.4 pt/a								
	Surfac 820	0.25 % v/v								
LSD	(P=.05)		1.95	8.94	0.00	3.35	3.28	5.16	0.17	7.22
Star	ndard Deviation		1.38	6.32	0.00	2.37	2.32	3.65	0.12	5.11
CV			124.01	7.37	0.0	2.74	2.65	4.21	0.13	6.39
Bart	lett's X2		7.611	38.77	0.0	15.232	0.0	22.651	0.0	15.844
P(Ba	artlett's X2)		0.179	0.001*		0.033*	-	0.002*	-	0.258

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

		0111	70101	Ly Oi C	,co.g.	u
Weed Code		PANTE	IAQTA	IAQTA	CASOB	CASOB
Crop Code		a a mtmal	a a mtmal	a a matura l	a a mtmal	
Rating Data Type Rating Unit		control percent	control percent	control percent	control percent	control percent
Rating Date		Jul-25-03	Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03
Trt-Eval Interval		00 20 00		000 02 00		000 02 00
Trt Treatment	Rate					
No. Name	Rate Unit	9	10	11	12	13
1 Liberty Link		0.0	0.0	0.0	0.0	0.0
Untreated 2 Liberty Link		92.5	99.0	99.0	99.0	99.0
Overtop one	32 fl oz/a	92.5	99.0	99.0	99.0	99.0
Overtop two	32 fl oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v	00.0	07.5	00.0	00.0	00.0
3 Liberty Link Prowl	2.4 pt/a	99.0	97.5	99.0	99.0	99.0
Overtop one	32 fl oz/a					
Overtop two	32 fl oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v	05.0	07.0	07.0	20.0	
4 Liberty Link Overtop one	32 fl oz/a	95.8	97.0	97.0	98.0	99.0
Overtop two	32 fl oz/a					
Dual Magnum	1.33 pt/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
5 Liberty Link	22 fl 07/0	93.5	93.0	99.0	98.5	99.0
Overtop one Overtop two	32 fl oz/a 32 fl oz/a					
Staple	0.6 oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v	70.5	00.0	04.5	07.0	00.0
6 Liberty Link Overtop two	32 fl oz/a	72.5	83.3	91.5	87.0	98.8
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
7 Liberty Link		89.8	92.8	99.0	91.5	99.0
Prowl	2.4 pt/a					
Overtop two Caparol	32 fl oz/a 2.0 pt/a					
MSMA 6.6	2.0 pt/a 2.4 pt/a					
Surfac 820	0.25 % v/v					
8 Liberty Link		97.5	97.8	99.0	99.0	99.0
Prowl	2.4 pt/a					
Cotoran	1.0 qt/a					
Overtop two Caparol	32 fl oz/a 2.0 pt/a					
MSMA 6.6	2.0 pt/a 2.4 pt/a					
Surfac 820	0.25 % v/v					
9 Liberty Link		81.8	88.8	99.0	93.3	99.0
Overtop two	32 fl oz/a					
Staple	0.6 oz/a					
Caparol	2.0 pt/a					
MSMA 6.6 Surfac 820	2.4 pt/a 0.25 % v/v					
10 Roundup Ready		0.0	0.0	0.0	0.0	0.0
Untreated						

		OIII	V CI 31	Ly Oi C	,coigi	u
Weed Code		PANTE	IAQTA	IAQTA	CASOB	CASOB
Crop Code						
Rating Data Type		control	control	control	control	control
Rating Unit		percent Jul-25-03	percent	percent	percent	percent
Rating Date Trt-Eval Interval		Jui-25-03	Jul-03-03	Sep-02-03	Jul-03-03	Sep-02-03
Trt Treatment	Rate					
No. Name	Rate Unit	9	10	11	12	13
11 Roundup Ready	rate one	99.0	90.8	99.0	96.8	99.0
Overtop one	21.3 fl oz/a					
Overtop two	21.3 fl oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
12 Roundup Ready	0.4	99.0	98.5	99.0	97.3	99.0
Prowl	2.4 pt/a					
Overtop one	21.3 fl oz/a 21.3 fl oz/a					
Overtop two Caparol	21.3 11 02/a 2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
13 Roundup Ready	2.20 /0 1/4	99.0	99.0	99.0	96.8	99.0
Overtop one	21.3 fl oz/a					
Overtop two	21.3 fl oz/a					
Dual Magnum	1.33 pt/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
14 Roundup Ready	04.0 ft/-	99.0	97.3	99.0	99.0	99.0
Overtop one	21.3 fl oz/a					
Overtop two Staple	21.3 fl oz/a 0.6 oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
15 Roundup Ready		96.8	90.5	99.0	94.5	99.0
Overtop two	21.3 fl oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
16 Roundup Ready	0.4 .4/.	99.0	83.3	87.5	86.0	99.0
Prowl	2.4 pt/a					
Overtop two Caparol	21.3 fl oz/a					
MSMA 6.6	2.0 pt/a 2.4 pt/a					
Surfac 820	0.25 % v/v					
17 Roundup Ready	0.20 /0 1/1	99.0	98.5	99.0	98.5	99.0
Prowl	2.4 pt/a					
Cotoran	1.0 qt/a					
Overtop two	21.3 fl oz/a					
Caparol	2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v	00.0	00.0	00.0	00.0	00.0
18 Roundup Ready	21 2 fl ==/=	99.0	98.0	99.0	98.0	99.0
Overtop two Staple	21.3 fl oz/a 0.6 oz/a					
Caparol	0.6 02/a 2.0 pt/a					
MSMA 6.6	2.4 pt/a					
Surfac 820	0.25 % v/v					
LSD (P=.05)		5.72	11.79	5.20	7.32	0.17
Standard Deviation		4.05	8.33	3.68	5.18	0.12
CV		4.82	9.97	4.24	6.08	0.13
Bartlett's X2		9.81	60.014	5.639	34.39	0.0
P(Bartlett's X2)		0.20	0.001*	0.06	0.001*	-

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

Mar-02-04 (C41-03) Trial Comments Page 8 of 8

University of Georgia

Weed management systems in LL and RR cotton

Trial ID: C41-03 Study Dir.: Stanley Culpepper Location: Ponder farm Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Compare weed management systems in LL and RR flex cotton.

VISUAL CROP RESPONSE:

1. At 11 d after POST 3, injury from mixing Dual with glyphosate was 14%. Injury from all other treatments was less than 5%.

WEED RESPONSE:

Bristly Starbur:

- 1. Early-season control (prior to directed applications) was greater than 90% except in LL systems when no PRE or Prowl PRE were followed with Liberty at POST 2.
- 2. By late-season, control was 99% in all systems.

Palmer Amaranth:

- 1. Early season control (prior to directed applications) was greater than 98% except in LL systems when no PRE or Prowl PRE were followed with Liberty at POST 2.
- 2. By late-season, control was 99% except when no PRE was used and the initial Liberty application was the POST 2 timing.

Florid Beggarweed:

- 1. Early season control (prior to directed applications) was greater than 90% in all systems.
- 2. Late-season control was 99% in all systems.

Texas Panicum:

- 1. Early season control (prior to directed applications) was greater than 90% in all RR systems except when only the POST 2 application had been applied.
- 2. Early season control (prior to directed applications) was greater than 90% in five LL systems. ALL of these LL systems included two applications of Liberty or Prowl + Cotoran fb Liberty. Less control was noted with a single POST 2 application of Liberty (58% control), Prowl fb POST 2 application of Liberty (89% control), and a POST 2 application of Liberty + Staple (62%).
- 3. Late-season control followed early season trends. Delaying a timely application of Liberty provided unacceptable control.

Smallflower mg:

- 1.Early season control (prior to directed applications) was excellent except with a single POST 2 application of Liberty or Roundup.
- 2. Late-season control followed the same trends as noted at early season.

Sicklepod

- 1. Early season control (prior to directed applications) was excellent except with a single POST 2 application of Liberty or Roundup.
- 2. Late-season control was excellent in all systems.

SEED COTTON YIELD:

- 1. Comparing LL cotton only: Yields were similar when a POST 1 application or Cotoran were included in the system. Yields from Liberty POST 2 fb the layby were 30% less than two applications of Liberty plus the Layby. Similarly, yields from Prowl PRE fb Liberty POST 2 fb the layby were 18% lower than the system containing Prowl PRE fb two Liberty POST fb a layby.
- 2. Comparing only RR cotton: No differences in yield were detected.
- 3. Yield values of LL cotton are available for Bayer and RR cotton for Monsanto upon request.

GENERAL COMMENTS:

- 1. POST 3 on June 22 weed sizes: Behind PRE, all weeds were up to 12 inches tall. Behind prior POST, weeds were all less than 3 inches.
- 2. PDIR on July 4 weed sizes: When 2 early POST, all weeds less than 3 inches. When only 1 early POST, weeds up to 8 inches.
- 3. PDIR on July 14 weed sizes: All weeds less than 4 inch except in some Liberty plots where grass was up to 12 inches.