

University of Georgia

WEED STAGE AT EACH APPLICATION						
	A	B	C	D	E	F
Weed 1 ACHNI 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:	. .	. .	3 ydsq	. .	. .	. .
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	. .	. .	. .
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:	. .	. .	5 ydsq	. .	. .	. .
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:	. .	. .	12 ydsq	. .	. .	. .
Weed 5 IAQTA 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:	. .	. .	3 ydsq	. .	. .	. .
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
Density, Unit:	. .	. .	1 ydsq	. .	. .	. .

APPLICATION EQUIPMENT						
	A	B	C	D	E	F
Appl. Equipment:	backpack	backpack	backpack	backpack	backpack	backpack
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	11002	11002	11002	11002	11002
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:	water	water	water	water	water	water
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

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Weed Code			GOSHI	ACHNI	ACHNI	AMAPA	AMAPA	DEDTO	DEDTO	PANTE	
Crop Code			injury	control	control	control	control	control	control	control	
Rating Data Type			percent	percent	percent	percent	percent	percent	percent	percent	
Rating Unit			percent	percent	percent	percent	percent	percent	percent	percent	
Rating 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-Eval Interval			-6199 DA								
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
18	Roundup Ready Overtop two	21.3	fl oz/a	1.5	97.5	99.0	97.5	99.0	98.0	99.0	90.8
	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
Standard 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
Bartlett's X2				7.611	38.77	0.0	15.232	0.0	22.651	0.0	15.844
P(Bartlett'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)

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Weed Code Crop Code Rating Data Type Rating Unit Rating Date Trt-Eval Interval				PANTE control percent Jul-25-03	IAQTA control percent Jul-03-03	IAQTA control percent Sep-02-03	CASOB control percent Jul-03-03	CASOB control percent Sep-02-03
Trt No.	Treatment Name	Rate	Unit	9	10	11	12	13
1	Liberty Link Untreated			0.0	0.0	0.0	0.0	0.0
2	Liberty Link Overtop one Overtop two Caparol MSMA 6.6 Surfac 820	32 32 2.0 2.4 0.25	fl oz/a fl oz/a pt/a pt/a % v/v	92.5	99.0	99.0	99.0	99.0
3	Liberty Link Prowl Overtop one Overtop two Caparol MSMA 6.6 Surfac 820	2.4 32 32 2.0 2.4 0.25	pt/a fl oz/a fl oz/a pt/a pt/a % v/v	99.0	97.5	99.0	99.0	99.0
4	Liberty Link Overtop one Overtop two Dual Magnum Caparol MSMA 6.6 Surfac 820	32 32 1.33 2.0 2.4 0.25	fl oz/a fl oz/a pt/a pt/a pt/a % v/v	95.8	97.0	97.0	98.0	99.0
5	Liberty Link Overtop one Overtop two Staple Caparol MSMA 6.6 Surfac 820	32 32 0.6 2.0 2.4 0.25	fl oz/a fl oz/a oz/a pt/a pt/a % v/v	93.5	93.0	99.0	98.5	99.0
6	Liberty Link Overtop two Caparol MSMA 6.6 Surfac 820	32 2.0 2.4 0.25	fl oz/a pt/a pt/a % v/v	72.5	83.3	91.5	87.0	98.8
7	Liberty Link Prowl Overtop two Caparol MSMA 6.6 Surfac 820	2.4 32 2.0 2.4 0.25	pt/a fl oz/a pt/a pt/a % v/v	89.8	92.8	99.0	91.5	99.0
8	Liberty Link Prowl Cotoran Overtop two Caparol MSMA 6.6 Surfac 820	2.4 1.0 32 2.0 2.4 0.25	pt/a qt/a fl oz/a pt/a pt/a % v/v	97.5	97.8	99.0	99.0	99.0
9	Liberty Link Overtop two Staple Caparol MSMA 6.6 Surfac 820	32 0.6 2.0 2.4 0.25	fl oz/a oz/a pt/a pt/a % v/v	81.8	88.8	99.0	93.3	99.0
10	Roundup Ready Untreated			0.0	0.0	0.0	0.0	0.0

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Weed Code Crop Code Rating Data Type Rating Unit Rating Date Trt-Eval Interval				PANTE	IAQTA	IAQTA	CASOB	CASOB
				control percent Jul-25-03	control percent Jul-03-03	control percent Sep-02-03	control percent Jul-03-03	control percent Sep-02-03
Trt No.	Treatment Name	Rate	Unit	9	10	11	12	13
11	Roundup Ready			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			99.0	98.5	99.0	97.3	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					
	Surfac 820	0.25	% v/v					
13	Roundup Ready			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			99.0	97.3	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			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			99.0	83.3	87.5	86.0	99.0
	Prowl	2.4	pt/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					
17	Roundup Ready			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					
18	Roundup Ready			99.0	98.0	99.0	98.0	99.0
	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					
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)

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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.