

University of Georgia

Managing glyphosate-resistant Palmer amaranth in RR Flex cotton.

Trial ID: C9-07

Study Dir.: Stanley Culpepper

Location: Macon County

Investigator: Stanley Culpepper

Reps: 3

Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1575)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep		
										1	2	3
1	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	101	206	309
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	8 If	E	16.89 ml/mx			
	VALOR SX	51	%	WG	0.064	LB A/A	8 If PD	E	1.524 g/mx			
	MSMA	6	#/G	SC	1.0	LB A/A	8 If PD	E	16.89 ml/mx			
2	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	102	218	301
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	8 If PD	E	16.89 ml/mx			
	DIREX	4	#/G	SC	1.0	LB A/A	8 If PD	E	25.34 ml/mx			
	MSMA	6	#/G	SC	1.0	LB A/A	8 If PD	E	16.89 ml/mx			
3	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	103	204	306
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
4	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	104	203	307
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	6If-T-No	C	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	6If-T-No	C	12.67 ml/mx			
5	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	105	215	311
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	8 If OT	D	16.89 ml/mx			
	STAPLE LX	33.6	% AI	SL	0.065	LB A/A	8 If OT	D	2.346 ml/mx			
6	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	106	208	312
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	STAPLE LX	33.6	% AI	SL	0.065	LB A/A	2 If	B	2.346 ml/mx			
7	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	107	217	316
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 58425	7	#/G	EC	1.5	LB A/A	2 If	B	21.72 ml/mx			
8	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	108	212	304
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 69430	3.8	#/G	L	1.5	LB A/A	2 If	B	40.0 ml/mx			
9	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	109	210	302
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 69430	3.8	#/G	L	3.0	LB A/A	2 If	B	80.01 ml/mx			
10	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	110	211	320
	REFLEX	2	#/G	EC	0.375	LB A/A	PRE	A	19.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 69430	3.8	#/G	L	1.5	LB A/A	2 If	B	40.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	6If-T-No	C	16.89 ml/mx			
	MON 69430	3.8	#/G	L	1.5	LB A/A	6If-T-No	C	40.0 ml/mx			

University of Georgia

Reps: 3

Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1575)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Grow Unit	Grow Stg	Appl Code	Amt to Measure	Plot No. By Rep		
										1	2	3
11	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	111	205	314
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	8 If PD	E	16.89 ml/mx			
	VALOR SX	51	%	WG	0.064	LB A/A	8 If PD	E	1.524 g/mx			
	MSMA	6	#/G	SC	1.0	LB A/A	8 If PD	E	16.89 ml/mx			
12	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	112	213	315
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	8 If PD	E	16.89 ml/mx			
	DIREX	4	#/G	SC	1.0	LB A/A	8 If PD	E	25.34 ml/mx			
	MSMA	6	#/G	SC	1.0	LB A/A	8 If PD	E	16.89 ml/mx			
13	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	113	202	310
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
14	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	114	209	319
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	6lf-T-No	C	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	6lf-T-No	C	12.67 ml/mx			
15	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	115	219	305
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	DUAL MAGNUM	7.62	#/G	EC	0.5	QT/A	2 If	B	12.67 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	8 If OT	D	16.89 ml/mx			
	STAPLE LX	33.6	% Al	SL	0.065	LB A/A	8 If OT	D	2.346 ml/mx			
16	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	116	214	318
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	STAPLE LX	33.6	% Al	SL	0.095	LB A/A	2 If	B	3.429 ml/mx			
17	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	117	216	308
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 58425	7	#/G	EC	1.5	LB A/A	2 If	B	21.72 ml/mx			
18	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	118	207	303
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 69492	3.8	#/G	L	1.5	LB A/A	2 If	B	40.0 ml/mx			
19	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	119	220	317
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 69492	3.8	#/G	L	3.0	LB A/A	2 If	B	80.01 ml/mx			
20	PROWL H20	3.8	#/G	SC	1.0	LB A/A	PRE	A	26.67 ml/mx	120	201	313
	COTORAN 4	4	#/G	SC	1.0	LB A/A	PRE	A	25.34 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	2 If	B	16.89 ml/mx			
	MON 69492	3.8	#/G	L	1.5	LB A/A	2 If	B	40.0 ml/mx			
	ROUNDUP WEATHERMAX	4.5	#/G AE	SL	0.75	LB AE/A	6lf-T-No	C	16.89 ml/mx			
	MON 69492	3.8	#/G	L	1.5	LB A/A	6lf-T-No	C	40.0 ml/mx			

Sort Order: Treatment

University of Georgia

Reps: 3 Plots: 12 by 25 feet
 Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min 1.1575)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Form Unit	Rate Stg	Grow Code	Appl to Measure	Amt Product 1	Plot No. 2	By Rep 3
---------	----------------	-----------	-----------	-----------	-----------	-----------	----------	-----------	-----------------	---------------	------------	----------

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
666.715	ml	PROWL H20	3.8	SC	
237.517	ml	REFLEX	2	EC	
633.379	ml	ROUNDUP WEATHERMAX	4.5	SL	
190.014	ml	DUAL MAGNUM	7.62	EC	
3.810	g	VALOR SX	51	WG	
84.451	ml	MSMA	6	SC	
63.338	ml	DIREX	4	SC	
13.086	ml	STAPLE LX	33.6	SL	
54.290	ml	MON 58425	7	EC	988759
250.018	ml	MON 69430	3.8	L	967022
316.690	ml	COTORAN 4	4	SC	
250.018	ml	MON 69492	3.8	L	967022

* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1.5 liters (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine the most effective program to control glyphosate-resistant Palmer amaranth in RR Flex.

Cotton Response:

1. Rainfall did not occur until 17 DAT; thus, soil applied herbicides caused no cotton injury.
2. At 3 d after the 2 If topical applications, cotton necrosis and spotting with glyphosate plus Dual was typical with injury ranging from 10 to 15%. Injury from Staple was also typical necrosis with about 15% injury. Injury by glyphosate plus Mon 58425 was similar to that of glyphosate plus Dual or Staple but injury by glyphosate plus Mon 69430 or 69492 tended to be less especially with the 69492.
3. Six leaf applications of glyphosate plus Dual, Mon 69430, or Mon 69942 caused similar and minor speckling (7-8%).
4. It appeared that cotton recovered from all herbicide treatments but this was hard to determine because of the lack of pigweed control.

Palmer response:

1. Rainfall did not occur until 17 d after planting; thus, the initial flush was never controlled by the residual herbicides and these residual herbicides provided very poor control at 24 DAT.
2. POST applications including Staple tended to improve control but control was still poor because of Palmer size at time of applications plus there is some ALS-resistance noted in this same glyphosate-resistant Palmer amaranth population.
3. Residual activity from POST applied herbicide could not be measured because the initial flush of pigweed was never controlled for the entire season.
4. Layby applications including Valor or Direx never had a chance because of the lack of weed coverage and the Palmer size at time of application.
5. Late-season control was a disaster with all treatments.

Morningglory control:

1. All programs provided excellent season long control of pitted morningglory.

University of Georgia

Managing glyphosate-resistant Palmer amaranth in RR Flex cotton.

Trial ID: C9-07

Study Dir.: Stanley Culpepper

Location: Macon County

Investigator: Stanley Culpepper

Weed Code		COTTON	COTTON	COTTON	AMAPA	AMAPA	AMAPA	AMAPA		
Crop Code		COTTON	COTTON	COTTON	AMAPA	AMAPA	AMAPA	AMAPA		
Rating Data Type		%	%	%	%	%	%	%		
Rating Unit		injury	injury	injury	control	control	control	control		
Rating Date		May-11-07	May-15-07	Jun-03-07	May-11-07	May-15-07	Jun-19-07	Jul-10-07		
Trt-Eval Interval		24 DA-A	3 DA-B	4 DA-C	24 DA-A	3 DA-B	12 DA-E	33 DA-E		
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7
1	PROWL H20	1.0	LB A/A	0 a	13 abc	0 b	52 a-d	42 b	65 a	62 a
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DUAL MAGNUM	0.5	QT/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	VALOR SX	0.064	LB A/A							
	MSMA	1.0	LB A/A							
2	PROWL H20	1.0	LB A/A	0 a	13 abc	0 b	52 a-d	38 b	57 a	55 ab
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DUAL MAGNUM	0.5	QT/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DIREX	1.0	LB A/A							
	MSMA	1.0	LB A/A							
3	PROWL H20	1.0	LB A/A	0 a	10 a-d	0 b	53 abc	30 b	27 cd	25 def
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DUAL MAGNUM	0.5	QT/A							
4	PROWL H20	1.0	LB A/A	0 a	16 ab	7 a	53 abc	32 b	27 cd	25 def
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DUAL MAGNUM	0.5	QT/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DUAL MAGNUM	0.5	QT/A							
5	PROWL H20	1.0	LB A/A	0 a	12 abc	0 b	55 abc	43 b	58 a	52 ab
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	DUAL MAGNUM	0.5	QT/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	STAPLE LX	0.065	LB A/A							
6	PROWL H20	1.0	LB A/A	0 a	15 abc	0 b	58 abc	75 a	44 b	42 bc
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	STAPLE LX	0.065	LB A/A							
7	PROWL H20	1.0	LB A/A	0 a	16 ab	0 b	60 ab	47 b	30 cd	30 c-f
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	MON 58425	1.5	LB A/A							
8	PROWL H20	1.0	LB A/A	0 a	7 cde	0 b	63 a	46 b	32 bcd	32 cde
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	MON 69430	1.5	LB A/A							
9	PROWL H20	1.0	LB A/A	0 a	8 b-e	0 b	53 abc	33 b	27 cd	25 def
	REFLEX	0.375	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	MON 69430	3.0	LB A/A							

University of Georgia

Weed Code			COTTON	COTTON	COTTON	AMAPA	AMAPA	AMAPA	AMAPA
Crop Code			%	%	%	%	%	%	%
Rating Data Type			injury	injury	injury	control	control	control	control
Rating Unit									
Rating Date			May-11-07	May-15-07	Jun-03-07	May-11-07	May-15-07	Jun-19-07	Jul-10-07
Trt-Eval Interval			24 DA-A	3 DA-B	4 DA-C	24 DA-A	3 DA-B	12 DA-E	33 DA-E
Trt No.	Treatment Name	Rate Rate Unit	1	2	3	4	5	6	7
10	PROWL H20	1.0 LB A/A	0 a	8 a-e	7 a	48 a-d	35 b	35 bcd	33 cde
	REFLEX	0.375 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	MON 69430	1.5 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	MON 69430	1.5 LB A/A							
11	PROWL H20	1.0 LB A/A	0 a	13 abc	0 b	33 d	32 b	62 a	43 bc
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DUAL MAGNUM	0.5 QT/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	VALOR SX	0.064 LB A/A							
	MSMA	1.0 LB A/A							
12	PROWL H20	1.0 LB A/A	0 a	17 a	0 b	40 cd	30 b	69 a	52 ab
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DUAL MAGNUM	0.5 QT/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DIREX	1.0 LB A/A							
	MSMA	1.0 LB A/A							
13	PROWL H20	1.0 LB A/A	0 a	14 abc	0 b	42 bcd	35 b	23 d	20 ef
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DUAL MAGNUM	0.5 QT/A							
14	PROWL H20	1.0 LB A/A	0 a	11 abc	8 a	45 a-d	40 b	37 bcd	33 cde
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DUAL MAGNUM	0.5 QT/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DUAL MAGNUM	0.5 QT/A							
15	PROWL H20	1.0 LB A/A	0 a	11 a-d	0 b	40 cd	42 b	68 a	64 a
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	DUAL MAGNUM	0.5 QT/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	STAPLE LX	0.065 LB A/A							
16	PROWL H20	1.0 LB A/A	0 a	12 abc	0 b	43 bcd	69 a	40 bc	37 cd
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	STAPLE LX	0.095 LB A/A							
17	PROWL H20	1.0 LB A/A	0 a	11 abc	0 b	55 abc	47 b	32 bcd	27 def
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	MON 58425	1.5 LB A/A							
18	PROWL H20	1.0 LB A/A	0 a	2 e	0 b	57 abc	37 b	28 cd	22 ef
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	MON 69492	1.5 LB A/A							
19	PROWL H20	1.0 LB A/A	0 a	2 e	0 b	55 abc	32 b	25 d	17 f
	COTORAN 4	1.0 LB A/A							
	ROUNDUP WEATHERMAX	0.75 LB AE/A							
	MON 69492	3.0 LB A/A							

University of Georgia

Weed Code			COTTON	COTTON	COTTON	AMAPA	AMAPA	AMAPA	AMAPA	
Crop Code			COTTON	COTTON	COTTON	AMAPA	AMAPA	AMAPA	AMAPA	
Rating Data Type			%	%	%	%	%	%	%	
Rating Unit			injury	injury	injury	control	control	control	control	
Rating Date			May-11-07	May-15-07	Jun-03-07	May-11-07	May-15-07	Jun-19-07	Jul-10-07	
Trt-Eval Interval			24 DA-A	3 DA-B	4 DA-C	24 DA-A	3 DA-B	12 DA-E	33 DA-E	
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7
20	PROWL H20	1.0	LB A/A	0 a	3 de	7 a	42 bcd	33 b	33 bcd	22 ef
	COTORAN 4	1.0	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	MON 69492	1.5	LB A/A							
	ROUNDUP WEATHERMAX	0.75	LB AE/A							
	MON 69492	1.5	LB A/A							
LSD (P=.05)				0.0	7.3	1.4	16.0	15.8	11.9	12.6
Standard Deviation				0.0	4.4	0.9	9.7	9.6	7.2	7.6
CV				0.0	41.53	60.14	19.35	23.49	17.57	21.29
Bartlett's X2				0.0	30.689	0.452	15.699	24.947	13.204	15.735
P(Bartlett's X2)				.	0.031*	0.929	0.545	0.126	0.779	0.675

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

University of Georgia

Weed Code			IPOLA	IPOLA
Crop Code				
Rating Data Type			%	%
Rating Unit			control	control
Rating Date			Jun-19-07	Jul-10-07
Trt-Eval Interval			12 DA-E	33 DA-E
Trt No.	Treatment Name	Rate Rate Unit	8	9
1	PROWL H20	1.0 LB A/A	98 a	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DUAL MAGNUM	0.5 QT/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	VALOR SX	0.064 LB A/A		
	MSMA	1.0 LB A/A		
2	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DUAL MAGNUM	0.5 QT/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DIREX	1.0 LB A/A		
	MSMA	1.0 LB A/A		
3	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DUAL MAGNUM	0.5 QT/A		
4	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DUAL MAGNUM	0.5 QT/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DUAL MAGNUM	0.5 QT/A		
5	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	DUAL MAGNUM	0.5 QT/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	STAPLE LX	0.065 LB A/A		
6	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	STAPLE LX	0.065 LB A/A		
7	PROWL H20	1.0 LB A/A	93 ab	95 b
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	MON 58425	1.5 LB A/A		
8	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	MON 69430	1.5 LB A/A		
9	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	MON 69430	3.0 LB A/A		
10	PROWL H20	1.0 LB A/A	96 ab	100 a
	REFLEX	0.375 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	MON 69430	1.5 LB A/A		
	ROUNDUP WEATHERMAX	0.75 LB AE/A		
	MON 69430	1.5 LB A/A		

University of Georgia

Weed Code			IPOLA	IPOLA
Crop Code				
Rating Data Type			%	%
Rating Unit			control	control
Rating Date			Jun-19-07	Jul-10-07
Trt-Eval Interval			12 DA-E	33 DA-E
Trt No.	Treatment Name	Rate	Unit	
		Rate	Unit	
11	PROWL H20	1.0	LB A/A	96 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DUAL MAGNUM	0.5	QT/A	
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	VALOR SX	0.064	LB A/A	
	MSMA	1.0	LB A/A	
12	PROWL H20	1.0	LB A/A	96 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DUAL MAGNUM	0.5	QT/A	
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DIREX	1.0	LB A/A	
	MSMA	1.0	LB A/A	
13	PROWL H20	1.0	LB A/A	96 ab
	COTORAN 4	1.0	LB A/A	97 ab
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DUAL MAGNUM	0.5	QT/A	
14	PROWL H20	1.0	LB A/A	93 b
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DUAL MAGNUM	0.5	QT/A	
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DUAL MAGNUM	0.5	QT/A	
15	PROWL H20	1.0	LB A/A	93 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	DUAL MAGNUM	0.5	QT/A	
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	STAPLE LX	0.065	LB A/A	
16	PROWL H20	1.0	LB A/A	95 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	STAPLE LX	0.095	LB A/A	
17	PROWL H20	1.0	LB A/A	95 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	MON 58425	1.5	LB A/A	
18	PROWL H20	1.0	LB A/A	95 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	MON 69492	1.5	LB A/A	
19	PROWL H20	1.0	LB A/A	95 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	MON 69492	3.0	LB A/A	

University of Georgia

Weed Code			IPOLA	IPOLA
Crop Code				
Rating Data Type			%	%
Rating Unit			control	control
Rating Date			Jun-19-07	Jul-10-07
Trt-Eval Interval			12 DA-E	33 DA-E
Trt No.	Treatment Name	Rate	Unit	
			8	9
20	PROWL H20	1.0	LB A/A	95 ab
	COTORAN 4	1.0	LB A/A	100 a
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	MON 69492	1.5	LB A/A	
	ROUNDUP WEATHERMAX	0.75	LB AE/A	
	MON 69492	1.5	LB A/A	
LSD (P=.05)			3.6	3.7
Standard Deviation			2.2	2.3
CV			2.3	2.28
Bartlett's X2			7.426	0.316
P(Bartlett's X2)			0.917	0.574

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

University of Georgia

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 82	% OM: 6.3	Texture: loamy sand
% Silt: 14	pH: 2	Soil Name: _____
% Clay: 4	CEC: _____	Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: dry

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A	B	C	D	E
Application Date:	Apr-17-07	May-12-07	May-30-07	Jun-07-07	Jun-07-07
Time of Day:	7:00 pm	10:00 am	9:00 am	9:00 am	9:00 am
Application Method:	broadcast	broadcast	broadcast	broadcast	broadcast
Application Timing:	PRE	2 leaf	6 leaf	8 leaf	8 leaf
Applic. Placement:	on soil	overtop	overtop	overtop	directed
Air Temp., Unit:	78 F	85 F	76 F	81 F	81 F
% Relative Humidity:	42	41	59	54	54
Wind Velocity, Unit:	4 mph	0 mph	3 mph	5 mph	5 mph
Dew Presence (Y/N):	N	N	N	N	N
Water Hardness:					
Soil Temp., Unit:	78 F	82 F	84 F	84 F	84 F
Soil Moisture:	moist	fair	dry	moist	moist
% Cloud Cover:	20	100	0	0	0

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E
Crop 1 Code, Stage:	GOSHI PRE	GOSHI 2 leaf	GOSHI 6 leaf	GOSHI 8 leaf	GOSHI 8 leaf
Stage Scale:	not up	1.5 leaf	5 leaf	9 leaf	9 leaf
Height, Unit:	0 inch	1.5 in	5 in	10 in	10 in

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E
Weed 1 Code, Stage:	AMAPA PRE	AMAPA 2 leaf	AMAPA 6 leaf	AMAPA 8 leaf	AMAPA 8 leaf
Stage Scale:	not up	2-4 inch	1-10 inch	4-14 inch	4-14 inch
Density, Unit:	0 ydsq	2 ydsq	4 ydsq	10 ydsq	10 ydsq
Weed 2 Code, Stage:	IPOLA PRE	IPOLA 2 leaf	IPOLA 6 leaf	IPOLA 8 leaf	IPOLA 8 leaf
Stage Scale:	not up	2 inch	5 inch	4 inch	4-14 inch
Density, Unit:	0 ydsq	2 ydsq	3 ydsq	3 ydsq	10 ydsq

University of Georgia

APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment