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Managing GR Palmer amaranth in LL and RR cotton.

Trial ID: C36-10
Location: Macon County

Study Director: Stanley Culpepper
Investigator: Stanley Culpepper

Use 2 liters(s) per treatment mixture to spray 14.8 gal/ac

Plots: 12 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	Amt Product to Measure	Plot No.	By Rep	1	2	3	4
1	Non-treated								101	213	305	413		
2	LL Cotton								102	212	309	410		
	Ignite	280	L	22	oz/a	POST 1	B	23.22 ml/mx						
	Ignite	280	L	22	oz/a	POST 3	D	23.22 ml/mx						
	Ignite	280	L	22	oz/a	POST 4	E	23.22 ml/mx						
3	LL Cotton								103	211	304	409		
	Ignite	280	L	29	oz/a	POST 1	B	30.61 ml/mx						
	Ignite	280	L	29	oz/a	POST 3	D	30.61 ml/mx						
	Ignite	280	L	29	oz/a	POST 4	E	30.61 ml/mx						
4	LL Cotton								104	210	308	406		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Ignite	280	L	22	oz/a	POST 1	B	23.22 ml/mx						
	Ignite	280	L	22	oz/a	POST 3	D	23.22 ml/mx						
	Ignite	280	L	22	oz/a	POST 4	E	23.22 ml/mx						
5	LL Cotton								105	209	301	405		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Ignite	280	L	29	oz/a	POST 1	B	30.61 ml/mx						
	Ignite	280	L	29	oz/a	POST 3	D	30.61 ml/mx						
	Ignite	280	L	29	oz/a	POST 4	E	30.61 ml/mx						
6	LL Cotton								106	208	307	407		
	Ignite	280	L	43	oz/a	POST 1	B	45.39 ml/mx						
	Ignite	280	L	29	oz/a	POST 3	D	30.61 ml/mx						
7	LL Cotton								107	207	302	408		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Ignite	280	L	43	oz/a	POST 1	B	45.39 ml/mx						
	Ignite	280	L	29	oz/a	POST 3	D	30.61 ml/mx						
8	LL Cotton								108	206	306	411		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Ignite	280	L	29	oz/a	POST 2	C	30.61 ml/mx						
	Direx	4	L	1	qt/a	PD	E	33.78 ml/mx						
	MSMA	6	L	2.5	pt/a	PD	E	42.23 ml/mx						
	COC		L	1	% v/v	PD	E	20.0 ml/mx						
9	LL Cotton								109	205	303	412		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Ignite	280	L	29	oz/a	POST 2	C	30.61 ml/mx						
	Dual Magnum	7.64	L	16	oz/a	POST 2	C	16.89 ml/mx						
	Direx	4	L	1	qt/a	PD	E	33.78 ml/mx						
	MSMA	6	L	2.5	pt/a	PD	E	42.23 ml/mx						
	COC		L	1	% v/v	PD	E	20.0 ml/mx						
10	RR FLEX COTTON								110	204	310	402		
	Roundup WeatherMax	4.5	L	22	oz/a	POST 1	B	23.22 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 2	C	23.22 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 3	D	23.22 ml/mx						
11	RR FLEX COTTON								111	203	313	401		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 1	B	23.22 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 2	C	23.22 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 3	D	23.22 ml/mx						

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Use 2 liters(s) per treatment mixture to spray 14.8 gal/ac

Plots: 12 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	Amt Product to Measure	Plot No.	By Rep	1	2	3	4
12	RR FLEX COTTON								112	202	312	404		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 1	B	23.22 ml/mx						
	Staple	3.2	L	2.7	oz/a	POST 1	B	2.85 ml/mx						
	Direx	4	L	1	qt/a	PD	E	33.78 ml/mx						
	MSMA	6	L	2.5	pt/a	PD	E	42.23 ml/mx						
	COC		L	1	% v/v	PD	E	20.0 ml/mx						
13	RR FLEX COTTON								113	201	311	403		
	Prowl	3.8	L	2	pt/a	PRE	A	33.78 ml/mx						
	Reflex	2	L	1	pt/a	PRE	A	16.89 ml/mx						
	Staple	3.2	L	2	oz/a	PRE	A	2.111 ml/mx						
	Roundup WeatherMax	4.5	L	22	oz/a	POST 2	C	23.22 ml/mx						
	Dual Magnum	7.64	L	16	oz/a	POST 2	C	16.89 ml/mx						
	Direx	4	L	1	qt/a	PD	E	33.78 ml/mx						
	MSMA	6	L	2.5	pt/a	PD	E	42.23 ml/mx						
	COC		L	1	% v/v	PD	E	20.0 ml/mx						

Sort Order: Treatment

Trial Comments

OBJECTIVE: Compare the most effective RR and LL systems.

VISUAL INJURY:

- At 15 d, residual herbicide injury was not detected.
- At 19 d, Reflex and Prowl injury was ranging from 10 to 15%. Cotton was not injured from Ignite or Roundup. Roundup plus Staple following Reflex plus PRE injured cotton 16%.
- Ignite plus Dual caused minimal cotton injury on LL cotton.
- Roundup plus Dual following Prowl + Reflex + Staple injured cotton up to 18%.
- Layby applications of Direx plus MSMA caused up to 12% chlorosis on lower cotton leaves.

PALMER CONTROL:

- At 15 DAP, Prowl plus Reflex provided 68 to 74% control. The addition of Staple PRE in this study did not improve control at 15 d but did improve control by at least 13% by 19 DAT.
- Just prior to layby or POST 4 applications, control was greater than 94% with Prowl + Reflex followed Ignite applied sequentially and all rates as well as Prowl + Reflex followed by Ignite + Dual Magnum.
- During late season, control was at least 92% with Prowl + Reflex followed by three applications of Ignite at 22 or 29 oz/A as well as Prowl plus Reflex followed by Ignite or Ignite + Dual followed by Direx + MSMA.
- No RR system provided adequate control.

SEED COTTON YIELD:

- Greatest yields were noted with Prowl + Reflex followed by three applications of Ignite at 22 or 29 oz/A as well as Prowl plus Reflex followed by Ignite or Ignite + Dual followed by Direx + MSMA. The system of Prowl + Reflex followed by Ignite at 43 oz POST 1 and 29 oz POST 3 also provided similar control.

Rainfall for Macon County 2010

April 20: 0.6 in
 April 24: 1.25 in
 May 3: 3.2 in
 May 17: 0.4 in
 May 30: 1.0 in
 May 31: 3.0 in
 Jun 15: 3.0 in
 Jun 17: 0.7 in
 Jun 23: 0.4 in

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Jun 24: 0.3 in
Jun 26: 0.2 in
Jun 30: 0.25 in
Jul 6: 0.15 in
Jul 10: 0.3 in
Jul 11: 0.2 in
Jul 12: 0.75 in
Aug 1: 0.2 in
Aug 2: 0.1 in
Aug 3: 0.5 in
Aug 4: 0.7 in
Aug 14: 1.25 in
Aug 15: 1.25 in
No additional rain through Oct.

Managing GR Palmer amaranth in LL and RR cotton.

Study Director: Stanley Culpepper
Investigator: Stanley Culpepper

Pest Type								
Pest Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Crop Code								
BBCH Scale								
Rating Date	5/21/2010	5/25/2010	6/1/2010	6/8/2010	6/14/2010	6/22/2010	7/1/2010	8/3/2010
Rating Data Type	injury	injury	injury	injury	injury	injury	injury	injury
Rating Unit	%	%	%	%	%	%	%	%
Crop Stage	SC	SC	SC	JS	JS	JS	JS	JS
Days After Last Applic.	15	19	26	33	39	47	56	89
Trt-Eval Interval	15 DA-A	4 DA-B	5 DA-C	4 DA-D	10 DA-D	6 DA-E	15 DA-E	48 DA-E
ARM Action Codes								
Number of Decimals								

Trt		Treatment		Number of Decimals															
No.	Name	Rate	Unit	1	2		3		4		5		6		7		8		9
1	Non-treated			0.0	a	0.0	d	0.0	d	0.0	c	0.0	a	0.0	d	0.0	c	0.0	a
2	LL Cotton			0.0	a	0.0	d	0.0	d	0.0	c	0.0	a	0.0	d	0.0	c	0.0	a
	Ignite	22	oz/a																
	Ignite	22	oz/a																
	Ignite	22	oz/a																
3	LL Cotton			0.0	a	0.0	d	0.0	d	0.0	c	0.0	a	0.0	d	0.0	c	0.0	a
	Ignite	29	oz/a																
	Ignite	29	oz/a																
	Ignite	29	oz/a																
4	LL Cotton			0.0	a	11.3	bc	6.3	bcd	7.5	b	3.8	a	1.3	d	2.5	b	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	22	oz/a																
	Ignite	22	oz/a																
	Ignite	22	oz/a																
5	LL Cotton			0.0	a	10.0	c	8.8	bc	7.5	b	8.8	a	2.5	cd	2.5	b	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	29	oz/a																
	Ignite	29	oz/a																
	Ignite	29	oz/a																
6	LL Cotton			0.0	a	0.0	d	0.0	d	0.0	c	0.0	a	0.0	d	0.0	c	0.0	a
	Ignite	43	oz/a																
	Ignite	29	oz/a																
7	LL Cotton			0.0	a	10.0	c	3.8	cd	3.8	bc	7.5	a	2.5	cd	2.5	b	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	43	oz/a																
	Ignite	29	oz/a																
8	LL Cotton			0.0	a	10.0	c	7.5	bc	6.3	b	8.8	a	7.5	abc	6.3	a	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	29	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
9	LL Cotton			0.0	a	10.0	c	6.3	bcd	8.8	ab	10.0	a	11.3	a	5.0	a	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	29	oz/a																
	Dual Magnum	16	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
10	RR FLEX COTTON			0.0	a	0.0	d	0.0	d	0.0	c	0.0	a	0.0	d	0.0	c	0.0	a
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																

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Pest Type									
Pest Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Crop Code									
BBCH Scale									
Rating Date	5/21/2010	5/25/2010	6/1/2010	6/8/2010	6/14/2010	6/22/2010	7/1/2010	8/3/2010	
Rating Data Type	injury	injury	injury	injury	injury	injury	injury	injury	
Rating Unit	%	%	%	%	%	%	%	%	
Crop Stage	SC	SC	SC	JS	JS	JS	JS	JS	
Days After Last Applic.	15	19	26	33	39	47	56	89	
Trt-Eval Interval	15 DA-A	4 DA-B	5 DA-C	4 DA-D	10 DA-D	6 DA-E	15 DA-E	48 DA-E	
ARM Action Codes									
Number of Decimals									

Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8	9							
11	RR FLEX COTTON			0.0	a	15.0	ab	11.3	ab	0.0	c	8.8	a	1.3	d	0.0	c	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																
12	RR FLEX COTTON			0.0	a	16.3	a	16.3	a	13.8	a	10.0	a	8.8	ab	5.0	a	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Roundup WeatherMax	22	oz/a																
	Staple	2.7	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
13	RR FLEX COTTON			0.0	a	12.5	abc	17.5	a	3.8	bc	11.3	a	3.8	bcd	1.3	bc	0.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Staple	2	oz/a																
	Roundup WeatherMax	22	oz/a																
	Dual Magnum	16	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
LSD (P=.05)				0.00	4.16	6.42	5.62	9.73	5.02	2.39	0.00	.							
Standard Deviation				0.00	2.91	4.49	3.94	6.81	3.51	1.67	0.00	.							
CV				0.0	39.82	75.33	99.84	128.68	117.85	87.08	0.0	.							
Bartlett's X2				0.0	3.3	3.353	2.71	0.798	8.744	0.14	0.0	.							
P(Bartlett's X2)				.	0.856	0.851	0.844	0.997	0.272	0.998	.	.							
Replicate F				0.000	2.271	1.430	0.776	0.730	0.662	1.371	0.000								
Replicate Prob(F)				1.0000	0.0968	0.2499	0.5152	0.5408	0.5806	0.2671	1.0000								
Treatment F				0.000	18.804	7.601	5.234	1.893	4.688	7.286	0.000								
Treatment Prob(F)				1.0000	0.0001	0.0001	0.0001	0.0693	0.0001	0.0001	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
Pest Code	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA
Crop Code								
BBCH Scale								
Rating Date	5/21/2010	5/25/2010	6/1/2010	6/8/2010	6/14/2010	6/22/2010	7/1/2010	8/3/2010
Rating Data Type	control	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%	%
Crop Stage	SC	SC	SC	JS	JS	JS	JS	SC
Days After Last Applic.	15	19	26	33	39	47	56	89
Trt-Eval Interval	15 DA-A	4 DA-B	5 DA-C	4 DA-D	10 DA-D	6 DA-E	15 DA-E	48 DA-E
ARM Action Codes								
Number of Decimals								

Trt No.	Treatment Name	Rate	Unit	Rate															
				10	11		12		13		14		15		16		17		
1	Non-treated			0.0	c	0.0	e	0.0	i	0.0	f	0.0	e	0.0	e	0.0	c	0.0	e
2	LL Cotton			0.0	c	81.3	b	70.0	f	85.0	cd	78.8	c	86.3	ab	81.3	a	72.5	c
	Ignite	22	oz/a																
	Ignite	22	oz/a																
	Ignite	22	oz/a																
3	LL Cotton			0.0	c	81.3	b	81.3	de	88.8	bc	86.3	bc	89.8	a	87.5	a	82.5	b
	Ignite	29	oz/a																
	Ignite	29	oz/a																
	Ignite	29	oz/a																
4	LL Cotton			73.8	a	93.3	a	94.8	abc	96.3	ab	95.0	ab	95.3	a	88.8	a	94.8	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	22	oz/a																
	Ignite	22	oz/a																
	Ignite	22	oz/a																
5	LL Cotton			73.8	a	95.0	a	97.0	ab	99.0	a	98.0	ab	99.0	a	90.5	a	92.3	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	29	oz/a																
	Ignite	29	oz/a																
	Ignite	29	oz/a																
6	LL Cotton			0.0	c	81.3	b	88.3	cd	94.5	abc	89.3	abc	71.3	bc	52.5	b	42.5	d
	Ignite	43	oz/a																
	Ignite	29	oz/a																
7	LL Cotton			71.3	ab	95.0	a	99.0	a	99.0	a	99.0	a	91.0	a	88.8	a	81.3	bc
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	43	oz/a																
	Ignite	29	oz/a																
8	LL Cotton			70.0	ab	67.5	c	89.3	bc	87.8	bc	82.5	c	92.0	a	90.5	a	93.0	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	29	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
9	LL Cotton			70.5	ab	62.5	c	90.5	bc	94.0	abc	95.0	ab	94.8	a	91.8	a	94.5	a
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Ignite	29	oz/a																
	Dual Magnum	16	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
10	RR FLEX COTTON			0.0	c	25.0	d	20.0	h	5.0	f	7.5	e	0.0	e	0.0	c	0.0	e
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																
11	RR FLEX COTTON			70.0	ab	80.0	b	55.0	g	42.5	e	22.5	d	31.3	d	2.5	c	0.0	e
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																
	Roundup WeatherMax	22	oz/a																

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA
Crop Code								
BBCH Scale								
Rating Date	5/21/2010	5/25/2010	6/1/2010	6/8/2010	6/14/2010	6/22/2010	7/1/2010	8/3/2010
Rating Data Type	control	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%	%
Crop Stage	SC	SC	SC	JS	JS	JS	JS	SC
Days After Last Applic.	15	19	26	33	39	47	56	89
Trt-Eval Interval	15 DA-A	4 DA-B	5 DA-C	4 DA-D	10 DA-D	6 DA-E	15 DA-E	48 DA-E
ARM Action Codes								
Number of Decimals								

Trt No.	Treatment Name	Rate	Unit	10		11		12		13		14		15		16		17	
12	RR FLEX COTTON			67.5	b	83.8	b	80.0	e	77.5	d	77.5	c	83.8	ab	81.3	a	77.5	bc
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Roundup WeatherMax	22	oz/a																
	Staple	2.7	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
13	RR FLEX COTTON			67.5	b	80.0	b	47.5	g	42.5	e	32.5	d	57.5	c	52.5	b	7.5	e
	Prowl	2	pt/a																
	Reflex	1	pt/a																
	Staple	2	oz/a																
	Roundup WeatherMax	22	oz/a																
	Dual Magnum	16	oz/a																
	Direx	1	qt/a																
	MSMA	2.5	pt/a																
	COC	1	% v/v																
LSD (P=.05)				5.48		6.44		7.91		9.81		12.37		16.67		12.42		9.57	
Standard Deviation				3.84		4.51		5.53		6.86		8.66		11.66		8.69		6.70	
CV				8.84		6.33		7.88		9.79		13.03		17.0		13.99		11.79	
Bartlett's X2				6.514		11.9		21.693		17.02		30.95		61.477		34.411		14.4	
P(Bartlett's X2)				0.481		0.219		0.017*		0.03*		0.001*		0.001*		0.001*		0.109	
Replicate F				1.108		2.619		3.946		2.652		3.198		2.328		0.117		0.693	
Replicate Prob(F)				0.3584		0.0657		0.0157		0.0634		0.0348		0.0909		0.9496		0.5622	
Treatment F				347.299		156.192		126.957		107.096		71.614		37.467		73.822		146.200	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001		0.0001	

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.

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Pest Type
 Pest Code
 Crop Code
 BBCH Scale
 Rating Date
 Rating Data Type
 Rating Unit
 Crop Stage
 Days After Last Applic.
 Trt-Eval Interval
 ARM Action Codes
 Number of Decimals

GOSHI
 BCOT
 10/7/2010
 YIELD
 LB
 SC
 154
 139 DA-B
 TY1
 1

Trt No.	Treatment Name	Rate	Unit	
			20	
1	Non-treated			0.0 e
2	LL Cotton			566.3 c
	Ignite	22	oz/a	
	Ignite	22	oz/a	
	Ignite	22	oz/a	
3	LL Cotton			731.8 b
	Ignite	29	oz/a	
	Ignite	29	oz/a	
	Ignite	29	oz/a	
4	LL Cotton			823.3 ab
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Ignite	22	oz/a	
	Ignite	22	oz/a	
	Ignite	22	oz/a	
5	LL Cotton			859.6 ab
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Ignite	29	oz/a	
	Ignite	29	oz/a	
	Ignite	29	oz/a	
6	LL Cotton			335.4 d
	Ignite	43	oz/a	
	Ignite	29	oz/a	
7	LL Cotton			877.0 a
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Ignite	43	oz/a	
	Ignite	29	oz/a	
8	LL Cotton			878.5 a
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Ignite	29	oz/a	
	Direx	1	qt/a	
	MSMA	2.5	pt/a	
	COC	1	% v/v	
9	LL Cotton			949.6 a
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Ignite	29	oz/a	
	Dual Magnum	16	oz/a	
	Direx	1	qt/a	
	MSMA	2.5	pt/a	
	COC	1	% v/v	
10	RR FLEX COTTON			0.0 e
	Roundup WeatherMax	22	oz/a	
	Roundup WeatherMax	22	oz/a	
	Roundup WeatherMax	22	oz/a	
11	RR FLEX COTTON			0.0 e
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Roundup WeatherMax	22	oz/a	
	Roundup WeatherMax	22	oz/a	
	Roundup WeatherMax	22	oz/a	

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Pest Type
 Pest Code
 Crop Code GOSHI
 BBCH Scale BCOT
 Rating Date 10/7/2010
 Rating Data Type YIELD
 Rating Unit LB
 Crop Stage SC
 Days After Last Applic. 154
 Trt-Eval Interval 139 DA-B
 ARM Action Codes TY1
 Number of Decimals 1

Trt	Treatment	Rate	Unit	
No.	Name			
12	RR FLEX COTTON			20
	Prowl	2	pt/a	598.2 c
	Reflex	1	pt/a	
	Roundup WeatherMax	22	oz/a	
	Staple	2.7	oz/a	
	Direx	1	qt/a	
	MSMA	2.5	pt/a	
	COC	1	% v/v	
13	RR FLEX COTTON			0.0 e
	Prowl	2	pt/a	
	Reflex	1	pt/a	
	Staple	2	oz/a	
	Roundup WeatherMax	22	oz/a	
	Dual Magnum	16	oz/a	
	Direx	1	qt/a	
	MSMA	2.5	pt/a	
	COC	1	% v/v	

LSD (P=.05) 127.90
 Standard Deviation 89.50
 CV 17.58
 Bartlett's X2 12.587
 P(Bartlett's X2) 0.127

Replicate F 0.825
 Replicate Prob(F) 0.4887
 Treatment F 75.533
 Treatment Prob(F) 0.0001

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.

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Managing GR Palmer amaranth in LL and RR cotton.

Trial ID: C36-10 Study Director: Stanley Culpepper
 Location: Macon County Investigator: Stanley Culpepper

General Trial Information

Study Director: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31793
Investigator: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31793

Trial Location

City: Macon Co. **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** good
Initiation Date: 5/6/2010
Country: USA
Directions:

Objectives:

Conclusions:

Crop Description

Crop 1: GOSHI *Gossypium hirsutum* Cotton, American upland
Variety: PHY 375 WRF **Description:** RR cultivar planted
BBCH Scale: BCOT **Planting Date:** 5/6/2010
Planting Method: hill drop **Rate, Unit:** 2 8 inch
Depth, Unit: 0.5 in
Row Spacing, Unit: 36 inch **Spacing Within Row, Unit:** 8 in
Seed Bed: bedded **Soil Temperature, Unit:** 83 F
Soil Moisture: moist **Emergence Date:** 5/11/2010

Crop 2: GOSHI *Gossypium hirsutum* American upland cotton
Variety: LL1785B6
BBCH Scale: BCOT **Planting Date:** 5/6/2010
Planting Method: hill drop **Rate, Unit:** 2 8 inch
Depth, Unit: 0.5 in
Row Spacing, Unit: 36 inch **Spacing Within Row, Unit:** 8 in
Seed Bed: bedded **Soil Temperature, Unit:** 83 F
Soil Moisture: moist **Emergence Date:** 5/11/2010

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth
Description: Glyphosate resistant

Site and Design

Plot Width, Unit: 12 FT **Site Type:** On farm
Plot Length, Unit: 25 FT **Tillage Type:** conventional
Replications: 4 **Study Design:** Randomized Complete Block

Trial Initiation Comments:

Previous Crops Previous Pesticides Year

1. cotton

Field Prep./Maintenance:

Soil Description

% Sand: 82 **% OM:** 2 **Texture:** loamy sand
% Silt: 14 **pH:** 6.1
% Clay: 4

Moisture Conditions

Overall Moisture Conditions: moist
Closest Weather Station: on site, see comments **Distance:** 50 **Unit:** yd

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Application Description

	A	B	C	D	E
Application Date:	5/6/2010	5/21/2010	5/27/2010	6/4/2010	6/16/2010
Time of Day:	7:00 pm	7:00 am	10:30 am	8:30 am	11:00 am
Application Method:	broadcast	broadcast	broadcast	broadcast	broadcast
Application Timing:	PRE	POST 1	POST 2	POST 3	PD&POST4
Application Placement:	on soil	overtop	overtop	overtop	directed
Applied By:	Culpepper	Culpepper	Culpepper	Culpepper	Culpepper
Air Temperature, Unit:	86 F	80 F	83.7 F	76.9 F	80 F
% Relative Humidity:	45	61	57	77	56
Wind Velocity, Unit:	0 mph	1 mph	1.5 mph	0 mph	2 mph
Dew Presence (Y/N):	n	Y	N	Y	N
Soil Temperature, Unit:	84 F	84.7 F	73.7 F	75.4 F	82.1 F
Soil Moisture:	moist	moist	fair	moist	moist
% Cloud Cover:	0	50	10	90	70

Crop Stage At Each Application

	A		B		C		D		E	
Crop 1 Code, BBCH Scale:	GOSHI	BCOT	GOSHI	BCOT	GOSHI	BCOT	GOSHI	BCOT	GOSHI	BCOT
Stage Scale Used:	BBCH		BBCH		BBCH		BBCH		BBCH	
Diameter, Unit:	0	in	1	lf	3	lf	6	lf	10	lf
Height, Unit:	0	in	2	in	4	in	8	in	20	in
Height Minimum, Maximum:	0	0	2	2	4	4	7	8	18	22

Pest Stage At Each Application

	A		B		C		D		E	
Pest 1 Code, Disc., Scale:	AMAPA	W	AMAPA	W	AMAPA	W	AMAPA	W	AMAPA	W
Height, Unit:	0	in	5	in	5	in	5	in	11	in
Height Minimum, Maximum:	0	0	4	5	4	5	4	5	8	12
Density, Unit:	0	ydsq	50	ydsq	20	ydsq	20	ydsq	20	ydsq
Coverage, Unit:	100	%	90	%	90	%	90	%	50	%

Application Equipment

	A	B	C	D	E
Appl. Equipment:	backpack	backpack	backpack	backpack	backpack
Operating Pressure:	26	26	26	26	26
Pressure Unit:	psi	psi	psi	psi	psi
Nozzle Type:	flat fan	flat fan	flat fan	flat fan	flat fan
Nozzle Size:	11002	11002	11002	11002	TK2
Nozzle Spacing, Unit:	18 in	18 in	18 in	18 in	36 in
Nozzles/Row:	2	2	2	2	1
Boom Length, Unit:	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
Carrier:	water	water	water	water	water
Spray Volume:	15	15	15	15	15
Volume Unit:	GAL/AC	GAL/AC	GAL/AC	GAL/AC	GAL/AC
Propellant:	CO2	CO2	CO2	CO2	CO2
Tank Mix (Y/N):	Y	Y	Y	Y	Y