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Reps: 4 Plots: 12 by 25 feet
 Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.5434)

Trt No.	Tr> N>	Form Conc	Form Unit	Form Type	Rate	Plot No. By Rep
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Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
182.116	ml	Ignite	2.8	L	
253.352	ml	Direx	4	L	
337.802	ml	MSMA	6	L	
37.496	ml	NIS		L	
4.487	ml	Staple	3.2	L	
42.225	ml	Dual Magnum	7.62	L	

- * 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).
- * Product amount calculations increased 25 % for overage adjustment.
- * 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 2 liters.

Trial Comments

OBJECTIVE: Determine Widestrike 485 BR Flex and glyphosate-resistant Palmer amaranth response to Ignite and Roundup based program.

COTTON RESPONSE:

1. Ignite applied alone injured cotton 14 to 17% at 4 d after the initial POST treatment. The second POST application of Ignite caused no injury. Mixing Dual with Ignite did not increase injury while mixing Staple with Ignite increased injury 8 to 10%.
2. Roundup did not injure cotton. Staple plus Roundup caused 18% chlorosis/necrosis and Dual plus Roundup caused 6% speckling.
3. Cotton recovered quickly from herbicide injury.

PALMER RESPONSE:

1. Roundup controlled about 50% of the initial population. The addition of Staple improved control to 73% control. By late season, control with all Roundup systems was non-existent.
2. Ignite applied to 2 inch Palmer provided excellent control. Nearly all of the Palmer that emerged during the crop came up during the first couple weeks of planting. Thus, the initial Ignite application provided excellent control thereby making control from all Ignite systems excellent throughout the season.

SEED YIELD:

1. Plots treated with Roundup Ready systems could not be harvested.
2. Plots from all Ignite systems provided similar yields which would be expected with similar weed control noted throughout the season.

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Glyphosate-resistant Palmer amaranth response to RR and LL systems.

Trial ID: C30-06

Study Dir.: Stanley Culpepper

Location: Macon Co. (Paved Rd)

Investigator: Stanley Culpepper

Weed Code		GOSHI	GOSHI	GOSHI	GOSHI	AMAPA	AMAPA	AMAPA		
Crop Code		injury	injury	injury	injury	control	control	control		
Rating Data Type		%	%	%	%	%	%	%		
Rating Unit										
Rating Date		Jun-01-06	Jun-08-06	Jun-17-06	Jul-12-06	Jun-01-06	Jun-08-06	Jun-17-06		
Assessed By		SC	AD	SC	SC	SC	AD	SC		
Trt-Eval Interval		31 DA-A	38 DA-A	47 DA-A	72 DA-A	31 DA-A	38 DA-A	47 DA-A		
ARM Action Codes										
# Subsamples, Dec.										
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7
1	Prowl	2	PT/A	0 e	1 ab	0 a	0 a	53 c	19 c	43 b
	Roundup WeatherMax	22	OZ/A							
	Roundup WeatherMax	22	OZ/A							
2	Prowl	2	PT/A	17 bc	4 ab	0 a	0 a	93 a	97 a	97 a
	Ignite	23	OZ/A							
	Ignite	23	OZ/A							
3	Prowl	2	PT/A	0 e	0 b	0 a	0 a	51 c	10 c	43 b
	Roundup WeatherMax	22	OZ/A							
	Roundup WeatherMax	22	OZ/A							
	Direx	2	PT/A							
	MSMA	2	LB A/A							
	NIS	0.25	% V/V							
4	Prowl	2	PT/A	14 bc	5 a	0 a	0 a	89 a	94 a	94 a
	Ignite	23	OZ/A							
	Ignite	23	OZ/A							
	Direx	2	PT/A							
	MSMA	2	LB A/A							
	NIS	0.25	% V/V							
5	Prowl	2	PT/A	18 b	3 ab	0 a	0 a	73 b	70 b	50 b
	Roundup WeatherMax	22	OZ/A							
	Staple	1.7	OZ/A							
	Direx	2	PT/A							
	MSMA	2	LB A/A							
	NIS	0.25	% V/V							
6	Prowl	2	PT/A	24 a	4 ab	0 a	0 a	93 a	96 a	84 a
	Ignite	23	OZ/A							
	Staple	1.7	OZ/A							
	Direx	2	PT/A							
	MSMA	2	LB A/A							
	NIS	0.25	% V/V							
7	Prowl	2	PT/A	6 d	0 b	0 a	0 a	57 c	10 c	41 b
	Roundup WeatherMax	22	OZ/A							
	Dual Magnum	1	PT/A							
	Direx	2	PT/A							
	MSMA	2	LB A/A							
	NIS	0.25	% V/V							

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Weed Code					AMAPA	AMAPA	AMAPA
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI			
Rating Data Type	injury	injury	injury	injury	control	control	control
Rating Unit	%	%	%	%	%	%	%
Rating Date	Jun-01-06	Jun-08-06	Jun-17-06	Jul-12-06	Jun-01-06	Jun-08-06	Jun-17-06
Assessed By	SC	AD	SC	SC	SC	AD	SC
Trt-Eval Interval	31 DA-A	38 DA-A	47 DA-A	72 DA-A	31 DA-A	38 DA-A	47 DA-A
ARM Action Codes							
# Subsamples, Dec.							
Trt Treatment	Rate						
No. Name	Rate Unit	1	2	3	4	5	6
8 Prowl	2 PT/A	14 c	4 ab	0 a	0 a	90 a	96 a
Ignite	23 OZ/A						
Dual Magnum	1 PT/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
LSD (P=.05)		4.1	3.7	0.0	0.0	6.3	11.1
Standard Deviation		2.8	2.5	0.0	0.0	4.3	7.6
CV		24.42	100.0	0.0	0.0	5.73	12.3
Bartlett's X2		1.369	2.454	0.0	0.0	4.372	11.119
P(Bartlett's X2)		0.928	0.783	.	.	0.736	0.001*

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

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Weed Code	AMAPA	AMAPA	AMAPA	AMAPA	Seed Yld	Seed Yld	
Crop Code					GOSHI	GOSHI	
Rating Data Type	control	control	control	control	20 row ft	YIELD	
Rating Unit	%	%	%	%	lb/plot	LB	
Rating Date	Jun-29-06	Jul-09-06	Jul-27-06	Sep-12-06	Oct-16-06	Oct-16-06	
Assessed By	SC	SC	AD	SC	SC	SC	
Trt-Eval Interval	59 DA-A	69 DA-A	87 DA-A	134 DA-A	168 DA-A	168 DA-A	
ARM Action Codes						TY1	
# Subsamples, Dec.						1	
Trt Treatment	Rate						
No. Name	Rate Unit	8	9	10	11	12	13
1 Prowl	2 PT/A	28 bc	3 c	0 b	0 b	0 b	0.0 b
Roundup WeatherMax	22 OZ/A						
Roundup WeatherMax	22 OZ/A						
2 Prowl	2 PT/A	95 a	97 a	96 a	95 a	2 a	1335.8 a
Ignite	23 OZ/A						
Ignite	23 OZ/A						
3 Prowl	2 PT/A	19 c	0 c	0 b	0 b	0 b	0.0 b
Roundup WeatherMax	22 OZ/A						
Roundup WeatherMax	22 OZ/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
4 Prowl	2 PT/A	93 a	96 a	100 a	95 a	2 a	1344.9 a
Ignite	23 OZ/A						
Ignite	23 OZ/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
5 Prowl	2 PT/A	30 b	23 b	0 b	0 b	0 b	0.0 b
Roundup WeatherMax	22 OZ/A						
Staple	1.7 OZ/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
6 Prowl	2 PT/A	96 a	95 a	94 a	95 a	2 a	1388.5 a
Ignite	23 OZ/A						
Staple	1.7 OZ/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
7 Prowl	2 PT/A	19 c	4 c	0 b	0 b	0 b	0.0 b
Roundup WeatherMax	22 OZ/A						
Dual Magnum	1 PT/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
8 Prowl	2 PT/A	95 a	95 a	96 a	96 a	2 a	1199.7 a
Ignite	23 OZ/A						
Dual Magnum	1 PT/A						
Direx	2 PT/A						
MSMA	2 LB A/A						
NIS	0.25 % V/V						
LSD (P=.05)		10.0	7.4	6.1	5.9	0.3	235.28
Standard Deviation		6.8	5.0	4.1	4.0	0.2	159.97
CV		11.5	9.78	8.59	8.51	24.29	24.29
Bartlett's X2		4.902	6.924	0.982	0.606	7.097	7.097
P(Bartlett's X2)		0.672	0.328	0.612	0.895	0.069	0.069

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

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Weed Code	AMAPA	AMAPA	AMAPA	AMAPA	Seed Yld	Seed Yld
Crop Code					GOSHI	GOSHI
Rating Data Type	control	control	control	control	20 row ft	YIELD
Rating Unit	%	%	%	%	lb/plot	LB
Rating Date	Jun-29-06	Jul-09-06	Jul-27-06	Sep-12-06	Oct-16-06	Oct-16-06
Assessed By	SC	SC	AD	SC	SC	SC
Trt-Eval Interval	59 DA-A	69 DA-A	87 DA-A	134 DA-A	168 DA-A	168 DA-A
ARM Action Codes						TY1
# Subsamples, Dec.						1

Column 13: TY1 = 726.0*[C12]

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

SOIL DESCRIPTION

% Sand: 82 % OM: 6.3 Texture: sand
 % Silt: 14 pH: 1.1 Soil Name: Tifton sandy loam
 % 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
Application Date:	May-01-06	May-28-06	Jun-29-06	Jun-15-06
Time of Day:	5 pm	11 am	4:30 pm	6 pm
Application Method:	broadcast	broadcast	broadcast	broadcast
Application Timing:	PRE	POST 1	POST 2	LPD
Applic. Placement:	on soil	overtop	overtop	directed
Air Temp., Unit:	77 F	92 F	98 F	79 F
% Relative Humidity:	44	45	41	44
Wind Velocity, Unit:	3 mph	2 mph	3 mph	2 mph
Dew Presence (Y/N):	n	n	n	n
Water Hardness:				
Soil Temp., Unit:	79 F	105 F	112 F	94 F
Soil Moisture:	moist	fair	fair/dry	dry
% Cloud Cover:	0	5	0	0

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	GOSHI PRE	GOSHI POST 1	GOSHI POST 2	GOSHI LPD
Stage Scale:	not up	3-4 leaf	11 leaf	15 leaf
Height, Unit:	0 inch	3.5 inch	7 inch	15 inch

WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	AMAPA PRE	AMAPA POST 1	AMAPA POST 2	AMAPA LPD
Stage Scale:	not up	3 leaf	12-15 lf	.
Density, Unit:	50 ydsq	2 inch	7 inch	15 inch

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APPLICATION EQUIPMENT

	A	B	C	D
Appl. Equipment:	backpack	backpack	backpack	backpack
Operating Pressure:	24	24	24	18
Nozzle Type:	flat fan	flat fan	flat fan	flat fan
Nozzle Size:	11002	11002	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch	18 inch	12 inch
Nozzles/Row:	2	2	2	3
Band Width, Unit:				
Boom Length, Unit:	4.5 ft	4.5 ft	4.5 ft	2 ft
Boom Height, Unit:	15 inch	15 inch	15 inch	12 inch
Ground Speed, Unit:	3 mph	3 mph	3 mph	3 mph
Incorporation Equip.:				
Hours to Incorp.:				
Incorp. Depth, Unit:				
Carrier:	water	water	water	water
Spray Volume, Unit:	14.8 GPA	14.8 GPA	14.8 GPA	14.8 GPA
Spray pH:				
Propellant:	CO2	CO2	CO2	CO2
Tank Mix (Y/N):	Y	Y	Y	Y

Trt No	Treatment Application Comment