

University of Georgia

Tropical spiderwort response to metolachlor products.

Trial ID: C26-05
 Location: Grady County

Study Dir.: Flanders, Culpepper
 Investigator: Stanley Culpepper

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

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Amt Code	Product to Measure	Plot No. By Rep			
									1	2	3	4
1	Untreated								101	207	308	406
2	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	102	201	305	408
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
3	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	103	205	303	409
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Dual Magnum	7.62	L	0.65	pt/a	POST-2	B	10.98 ml/mx				
4	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	104	208	307	401
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Dual Magnum	7.62	L	1	pt/a	POST-2	B	16.89 ml/mx				
5	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	105	206	309	405
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Stalwart	8	L	1	pt/a	POST-2	B	16.89 ml/mx				
6	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	106	203	306	403
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Roundup Weathermax	4.5	L	22	fl oz/a	PDIR	C	23.23 ml/mx				
7	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	107	209	310	402
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Dual Magnum	7.62	L	0.65	pt/a	POST-2	B	10.98 ml/mx				
	Roundup Weathermax	4.5	L	22	fl oz/a	PDIR	C	23.23 ml/mx				
8	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	108	210	304	407
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Dual Magnum	7.62	L	1	pt/a	POST-2	B	16.89 ml/mx				
	Roundup Weathermax	4.5	L	22	fl oz/a	PDIR	C	23.23 ml/mx				
9	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	109	204	302	410
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Stalwart	8	L	1	pt/a	POST-2	B	16.89 ml/mx				
	Roundup Weathermax	4.5	L	22	fl oz/a	PDIR	C	23.23 ml/mx				
10	Roundup Weathermax	4.5	L	22	fl oz/a	POST-1	A	23.23 ml/mx	110	202	301	404
	Roundup Weathermax	4.5	L	22	fl oz/a	POST-2	B	23.23 ml/mx				
	Stalwart	8	L	1.3	pt/a	POST-2	B	21.96 ml/mx				
	Roundup Weathermax	4.5	L	22	fl oz/a	PDIR	C	23.23 ml/mx				

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
667.759	ml	Roundup Weathermax 4.5 L	
69.672	ml	Dual Magnum 7.62 L	
69.672	ml	Stalwart 8 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.

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Tropical spiderwort response to metolachlor products.

Trial ID: C26-05

Study Dir.: Flanders, Culpepper

Location: Grady County

Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Compare tropical spiderwort response to S-metolachlor and metolachlor.

RESULTS:

1. Treatments 2 through 5 did not get a layby application to compare longevity of control by metolachlor products. Roundup alone provided very poor control because of no residual weed control. For 4 weeks after application, no differences in control by either rate of Dual Magnum or Stalwart were noted. However as was the case in 2004, by 5 WAT control by Dual Magnum at 1 pt/A was more effective than Stalwart at 1 pt/A. No differences between Dual Magnum at 0.65 pt/A and Stalwart at 1 pt/A were noted.
2. Treatments 6 through 10 were more of a systems approach but included only glyphosate at layby. Four 4 weeks after the layby application, control was similar with all metolachlor programs; however by late-season, control was greater with the system containing 1 pt of Dual Magnum as compared to 1 pt of Stalwart.

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Weed Code	COMBE control	COMBE control	COMBE control	COMBE control	COMBE control	COMBE control	COMBE control	COMBE control
Rating Data Type	percent	percent	percent	percent	percent	percent	percent	percent
Rating Unit								
Rating Date	Jun-16-05	Jun-24-05	Jun-30-05	Jul-06-05	Jul-12-05	Jul-18-05	Jul-26-05	Aug-03-05
Trt-Eval Interval	24 DA-A	32 DA-A	38 DA-A	44 DA-A	50 DA-A	56 DA-A	64 DA-A	72 DA-A
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate
		Unit	1	2	3	4	5	6
1	Untreated		0	0	0	0	0	0
2	Roundup Weathermax	22 fl oz/a	51	55	55	34	39	43
	Roundup Weathermax	22 fl oz/a						
3	Roundup Weathermax	22 fl oz/a	99	99	99	89	92	86
	Roundup Weathermax	22 fl oz/a						
	Dual Magnum	0.65 pt/a						
4	Roundup Weathermax	22 fl oz/a	99	99	98	92	95	92
	Roundup Weathermax	22 fl oz/a						
	Dual Magnum	1 pt/a						
5	Roundup Weathermax	22 fl oz/a	97	99	98	85	89	86
	Roundup Weathermax	22 fl oz/a						
	Stalwart	1 pt/a						
6	Roundup Weathermax	22 fl oz/a	45	50	50	30	61	65
	Roundup Weathermax	22 fl oz/a						
	Roundup Weathermax	22 fl oz/a						
7	Roundup Weathermax	22 fl oz/a	98	99	100	89	97	95
	Roundup Weathermax	22 fl oz/a						
	Dual Magnum	0.65 pt/a						
	Roundup Weathermax	22 fl oz/a						
8	Roundup Weathermax	22 fl oz/a	97	99	100	92	99	98
	Roundup Weathermax	22 fl oz/a						
	Dual Magnum	1 pt/a						
	Roundup Weathermax	22 fl oz/a						
9	Roundup Weathermax	22 fl oz/a	99	99	99	87	97	94
	Roundup Weathermax	22 fl oz/a						
	Stalwart	1 pt/a						
	Roundup Weathermax	22 fl oz/a						
10	Roundup Weathermax	22 fl oz/a	99	99	99	92	99	98
	Roundup Weathermax	22 fl oz/a						
	Stalwart	1.3 pt/a						
	Roundup Weathermax	22 fl oz/a						
LSD (P=.05)			4.5	6.7	4.2	6.4	4.5	4.9
Standard Deviation			3.1	4.6	2.9	4.4	3.1	3.4
CV			3.99	5.76	3.61	6.41	4.05	4.48
								11.5
								8.0
								11.1
								8.88

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code			COMBE
Rating Data Type			control
Rating Unit			percent
Rating Date			Sep-05-05
Trt-Eval Interval			
Trt No.	Treatment Name	Rate Rate Unit	9
1	Untreated		0
2	Roundup Weathermax	22 fl oz/a	21
	Roundup Weathermax	22 fl oz/a	
3	Roundup Weathermax	22 fl oz/a	80
	Roundup Weathermax	22 fl oz/a	
	Dual Magnum	0.65 pt/a	
4	Roundup Weathermax	22 fl oz/a	88
	Roundup Weathermax	22 fl oz/a	
	Dual Magnum	1 pt/a	
5	Roundup Weathermax	22 fl oz/a	78
	Roundup Weathermax	22 fl oz/a	
	Stalwart	1 pt/a	
6	Roundup Weathermax	22 fl oz/a	86
	Roundup Weathermax	22 fl oz/a	
	Roundup Weathermax	22 fl oz/a	
7	Roundup Weathermax	22 fl oz/a	85
	Roundup Weathermax	22 fl oz/a	
	Dual Magnum	0.65 pt/a	
	Roundup Weathermax	22 fl oz/a	
8	Roundup Weathermax	22 fl oz/a	93
	Roundup Weathermax	22 fl oz/a	
	Dual Magnum	1 pt/a	
	Roundup Weathermax	22 fl oz/a	
9	Roundup Weathermax	22 fl oz/a	86
	Roundup Weathermax	22 fl oz/a	
	Stalwart	1 pt/a	
	Roundup Weathermax	22 fl oz/a	
10	Roundup Weathermax	22 fl oz/a	89
	Roundup Weathermax	22 fl oz/a	
	Stalwart	1.3 pt/a	
	Roundup Weathermax	22 fl oz/a	
LSD (P=.05)			6.7
Standard Deviation			4.6
CV			6.54

Means followed by same letter do not significantly differ (P=.05, LSD)

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

SOIL DESCRIPTION

% Sand: 80 % OM: 2.1 Texture: loamy sand
 % Silt: 12 pH: 5.9 Soil Name: _____
 % Clay: 8 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: irrigated

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-23-05	Jun-03-05	Jul-06-05
Time of Day:	10 am	7 pm	9 am
Application Method:	broadcast	broadcast	broadcast
Application Timing:	POST-1	POST-2	PDIR
Applic. Placement:	overtop	overtop	directed
Air Temp., Unit:	76 F	86 F	78 F
% Relative Humidity:	60	45	72
Wind Velocity, Unit:	4 mph	2 mph	2 mph
Dew Presence (Y/N):	n	n	n
Water Hardness:			
Soil Temp., Unit:	73 F	80 F	90 F
Soil Moisture:	moist	wet	wet
% Cloud Cover:	30	100	100

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GOSHI POST-1	GOSHI POST-2	GOSHI PDIR
Stage Scale:	1 leaf	5 leaf	13 leaf
Height, Unit:	1.25 inch	5 inch	24 inch

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	COMBE POST-1	COMBE POST-2	COMBE PDIR
Stage Scale:	none	none	4-6 inch
Density, Unit:	0 ydsq	0 ydsq	100 ydsq

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APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	backpack	backpack	backpack
Operating Pressure:	23	23	18
Nozzle Type:	flat fan	flat fan	flat fan
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch	12 inch
Nozzles/Row:	2	2	3
Band Width, Unit:			
Boom Length, Unit:	4.5 feet	4.5 feet	2 feet
Boom Height, Unit:	15 inch	15 inch	12 inch
Ground Speed, Unit:	3 mph	3 mph	3 mph
Incorporation Equip.:			
Hours to Incorp.:			
Incorp. Depth, Unit:			
Carrier:	water	water	water
Spray Volume, Unit:	14.8 GPA	14.8 GPA	14.8 GPA
Spray pH:			
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	Y	Y	Y

Trt No	Treatment Application Comment