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Tropical spiderwort response to layby herbicide options.

Trial ID: C27-05
 Location: Grady County

Study Dir.: Stanley Culpepper
 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 Type	Rate Rate	Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep		
									1	2	3
1	Aim	2	EC	1.25	oz/a	PDIR	A	0.9898 ml/mx	101	216	303
	COC	L		1	% v/v	PDIR	A	15.0 ml/mx			
2	ET751	.208	L	1.25	oz/a	PDIR	A	0.9898 ml/mx	102	212	301
	COC	L		1	% v/v	PDIR	A	15.0 ml/mx			
3	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	103	206	305
4	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	104	205	316
	Aim	2	EC	1.25	oz/a	PDIR	A	0.9898 ml/mx			
5	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	105	217	311
	ET751	.208	L	1.25	oz/a	PDIR	A	0.9898 ml/mx			
6	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	106	201	304
	Valor	51	DG	1.5	oz/a	PDIR	A	1.139 g/mx			
7	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	107	210	308
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
8	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	108	209	306
	Aim	2	EC	1.25	oz/a	PDIR	A	0.9898 ml/mx			
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
9	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	109	218	317
	Valor	51	DG	1.5	oz/a	PDIR	A	1.139 g/mx			
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
10	Roundup WeatherMax	5.5	SL	21.3	oz/a	PDIR	A	16.87 ml/mx	110	208	307
	ET751	.208	L	1.25	oz/a	PDIR	A	0.9898 ml/mx			
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
11	Non-treated								111	203	315
12	2,4-D	4	L	1	pt/a	PDIR	A	12.67 ml/mx	112	207	309
13	MSMA	6	L	2	lb ai/a	PDIR	A	33.78 ml/mx	113	215	302
	NIS	L		0.25	% v/v	PDIR	A	3.75 ml/mx			
14	MSMA	6	L	2	lb ai/a	PDIR	A	33.78 ml/mx	114	213	310
	Direx	4	L	2	pt/a	PDIR	A	25.34 ml/mx			
	NIS	L		0.25	% v/v	PDIR	A	3.75 ml/mx			
15	MSMA	6	L	2	lb ai/a	PDIR	A	33.78 ml/mx	115	211	312
	Direx	4	L	2	pt/a	PDIR	A	25.34 ml/mx			
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
	NIS	L		0.25	% v/v	PDIR	A	3.75 ml/mx			
16	MSMA	6	L	2	lb ai/a	PDIR	A	33.78 ml/mx	116	214	313
	Valor	51	DF	2	oz/a	PDIR	A	1.518 g/mx			
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
	NIS	L		0.25	% v/v	PDIR	A	3.75 ml/mx			
17	MSMA	6	L	2	lb ai/a	PDIR	A	33.78 ml/mx	117	202	314
	Valor	51	DF	2	oz/a	PDIR	A	1.518 g/mx			
	NIS	L		0.25	% v/v	PDIR	A	3.75 ml/mx			
18	Direx	4	L	2	pt/a	PDIR	A	25.34 ml/mx	118	204	318
	Dual Magnum	7.62	L	1	pt/a	PDIR	A	12.67 ml/mx			
	MSMA	6	L	2	lb ai/a	PDIR	A	33.78 ml/mx			
	Aim	2	EC	0.75	oz/a	PDIR	A	0.5939 ml/mx			
	NIS	L		0.25	% v/v	PDIR	A	3.75 ml/mx			

Sort Order: Treatment

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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 Type	Form Rate	Form Unit	Rate Stg	Grow Code	Appl to Measure	Amt Product 1	Plot No. 2	By Rep 3
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Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Lot Code
4.454	ml	Aim 2 EC	
37.496	ml	COC L	
3.712	ml	ET751 .208 L	
168.655	ml	Roundup WeatherMax 5.5 SL	
2.846	g	Valor 51 DG	
110.841	ml	Dual Magnum 7.62 L	
15.834	ml	2,4-D 4 L	
253.352	ml	MSMA 6 L	
28.122	ml	NIS L	
95.007	ml	Direx 4 L	
3.795	g	Valor 51 DF	

- * '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.
- * 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1.5 liters.

Trial Comments

OBJECTIVE: Determine the most effective layby application for the control of tropical spiderwort.

SPIDERWORT RESPONSE:

1. Initial burndown by all Aim and Valor mixtures exceeded 87% control. MSMA when mixed with other herbicides such as Direx, Valor, or Aim provided similar burndown.
2. By late-season, greater than 95% control was noted with MSMA + Direx + Dual, MSMA + Valor + Dual, and MSMA + Direx + Aim + Dual. Glyphosate + Valor + Dual and Glyphosate + Aim + Dual provided 89 to 91% control.

GENERAL COMMENTS:

1. Prowl was applied PRE over the trial on the day of planting.
2. Roundup WeatherMax was applied over the trial on June 6 when cotton was in the 5 leaf stage of growth.

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Tropical spiderwort response to layby herbicide options.

Trial ID: C27-05

Study Dir.: Stanley Culpepper

Location: Grady County

Investigator: Stanley Culpepper

Weed Code		COMBE control percent	COMBE control percent	COMBE control percent	COMBE control percent		
Rating Data Type		Jul-12-05	Jul-18-05	Aug-03-05	Sep-05-05		
Rating Unit		6 DA-A	12 DA-A	28 DA-A	61 DA-A		
Rating Date							
Trt-Eval Interval							
Trt No.	Treatment Name	Rate	Unit	1	2	3	4
1	Aim COC	1.25 1	oz/a % v/v	95	94	74	73
2	ET751 COC	1.25 1	oz/a % v/v	52	42	31	33
3	Roundup WeatherMax	21.3	oz/a	56	70	68	60
4	Roundup WeatherMax Aim	21.3 1.25	oz/a oz/a	96	93	84	77
5	Roundup WeatherMax ET751	21.3 1.25	oz/a oz/a	65	81	71	62
6	Roundup WeatherMax Valor	21.3 1.5	oz/a oz/a	88	96	96	79
7	Roundup WeatherMax Dual Magnum	21.3 1	oz/a pt/a	53	65	62	69
8	Roundup WeatherMax Aim Dual Magnum	21.3 1.25 1	oz/a oz/a pt/a	100	99	98	89
9	Roundup WeatherMax Valor Dual Magnum	21.3 1.5 1	oz/a oz/a pt/a	96	98	96	91
10	Roundup WeatherMax ET751 Dual Magnum	21.3 1.25 1	oz/a oz/a pt/a	70	78	87	77
11	Non-treated			0	0	0	0
12	2,4-D	1	pt/a	77	96	91	71
13	MSMA NIS	2 0.25	lb ai/a % v/v	77	80	82	74
14	MSMA Direx NIS	2 2 0.25	lb ai/a pt/a % v/v	98	97	89	86
15	MSMA Direx Dual Magnum NIS	2 2 1 0.25	lb ai/a pt/a pt/a % v/v	93	99	99	99
16	MSMA Valor Dual Magnum NIS	2 2 1 0.25	lb ai/a oz/a pt/a % v/v	96	98	98	96
17	MSMA Valor NIS	2 2 0.25	lb ai/a oz/a % v/v	92	95	91	85

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Weed Code			COMBE	COMBE	COMBE	COMBE
Rating Data Type			control	control	control	control
Rating Unit			percent	percent	percent	percent
Rating Date			Jul-12-05	Jul-18-05	Aug-03-05	Sep-05-05
Trt-Eval Interval			6 DA-A	12 DA-A	28 DA-A	61 DA-A
Trt No.	Treatment Name	Rate Unit	1	2	3	4
18	Direx	2 pt/a	98	98	99	97
	Dual Magnum	1 pt/a				
	MSMA	2 lb ai/a				
	Aim	0.75 oz/a				
	NIS	0.25 % v/v				
LSD (P=.05)			12.5	15.1	13.5	10.1
Standard Deviation			7.5	9.1	8.1	6.1
CV			9.64	11.03	10.3	8.27

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

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Tropical spiderwort response to layby herbicide options.

Trial ID: C27-05 Study Dir.: Stanley Culpepper
 Location: Grady County Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper	Title: Ext. Weed Science
Affiliation: Univ. of Georgia	
Postal Code: 31794	
Investigator: Tim Flanders	Title: Extension
Affiliation: Univ. of Georgia	
Postal Code: 31794	

TRIAL LOCATION

City: Grady County	Trial Status: completed
State/Prov.: GA	Trial Reliability: excellent
Postal Code: 31794	Initiation Date: May-12-05
Country: USA	Planned Completion Date: _____
E-Longitude of LL Corner °: _____	N-Latitude of LL Corner °: _____
Altitude of LL Corner: _____ Unit: _____	Angle y-axis to North °: _____

Directions: _____

COOPERATOR/LANDOWNER

Cooperator: _____	Country: _____
Org: _____	Phone No: _____
Address 1: _____	Fax No: _____
Address 2: _____	
City: _____	
State/Prov: _____	
Postal Code: _____	

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N
Guidelines: _____ **Guideline Description:** _____

Objective: _____

Conclusions: _____

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	COMBE	tropical spiderwort	

Crop 1: GOSHI cotton **Variety:** DP 555 B/RR
Planting Date: Jul-06-05 **Planting Method:** seeded
Rate: 3 per18in **Depth:** 0.5 in **Perennial Age:** _____
Row Spacing: 36 inch **Spacing Within Row:** 18 inch **Seed Bed:** bedded
Soil Temperature: 97 F **Soil Moisture:** moist **Emergence Date:** May-17-05

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: on farm
Tillage Type: conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments: _____

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance: _____

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

SOIL DESCRIPTION

% Sand: _____ % OM: 2.1 Texture: loamy sand
 % Silt: _____ pH: 5.9 Soil Name: _____
 % Clay: _____ 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
Application Date:	Jul-06-05
Time of Day:	10 am
Application Method:	broadcast
Application Timing:	PDIR
Applic. Placement:	directed
Air Temp., Unit:	78 F
% Relative Humidity:	72
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	90 F
Soil Moisture:	wet
% Cloud Cover:	100

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI PDIR
Stage Scale:	12-14 lf
Height, Unit:	24 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	COMBE PDIR
Stage Scale:	4-7 inch
Density, Unit:	100 ydsq

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APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment