

University of Georgia

Tropical spiderwort response to Dual Magnum systems.

Trial ID: C43-06
 Location: Sunbelt Expo

Study Dir.: Stanley Culpepper
 Investigator: Stanley Culpepper

Reps: 3 Plots: 12 by 22 feet
 Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min 1.0186)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Grow Stg	Appl Code	Amt Product to Measure	Plot No. 1	Plot No. 2	Plot No. 3
1	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	101	203	305
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
2	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	102	208	306
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
	Dual Magnum	7.62	L		8 OZ/A	PDIR	B	6.334 ml/mx			
3	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	103	207	303
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
	Dual Magnum	7.62	L		12 OZ/A	PDIR	B	9.502 ml/mx			
4	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	104	201	309
	Dual Magnum	7.62	L		8 OZ/A	POST	A	6.334 ml/mx			
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
5	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	105	206	308
	Dual Magnum	7.62	L		8 OZ/A	POST	A	6.334 ml/mx			
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
6	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	106	209	302
	Dual Magnum	7.62	L		8 OZ/A	POST	A	6.334 ml/mx			
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
7	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	107	205	307
	Dual Magnum	7.62	L		12 OZ/A	POST	A	9.502 ml/mx			
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
8	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	108	204	301
	Dual Magnum	7.62	L		12 OZ/A	POST	A	9.502 ml/mx			
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
9	Roundup WMAX	4.5	L		22 OZ/A	POST	A	17.42 ml/mx	109	202	304
	Dual Magnum	7.62	L		12 OZ/A	POST	A	9.502 ml/mx			
	Roundup WMAX	4.5	L		22 OZ/A	PDIR	B	17.42 ml/mx			
	Direx	4	L		1.5 PT/A	PDIR	B	19.0 ml/mx			
	Dual Magnum	7.62	L		12 OZ/A	PDIR	B	9.502 ml/mx			

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
391.946	ml	Roundup WMAX	4.5	L	
213.765	ml	Direx	4	L	
118.771	ml	Dual Magnum	7.62	L	

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Reps: 3

Plots: 12 by 22 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.0186)

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
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* '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: Compare weed management programs developed to control tropical spiderwort.

LARGE CRABGRASS, PALMER AMARANTH, SMALLFLOWER MORNINGGLORY:

1. All programs provided excellent control.

TROPICAL SPIDERWORT:

1. At 20 d after the layby, control was similar among all systems.
2. By late-season, control was at most 86% even with the best program. Programs without Dual Magnum were less effective than those with Dual Magnum. Differences in the Dual rate or application timing were not noted in this trial.

DOVEWEED:

1. Doveweed control was variable as the population is just beginning to get established in this area. However, it is clear that control will be challenging as these very effective programs provided only 66 to 86% control.

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Trial ID: C43-06

Study Dir.: Stanley Culpepper

Location: Sunbelt Expo

Investigator: Stanley Culpepper

Weed Code	DIGSA control	DIGSA control	COMBE control	COMBE control	AMAPA control	AMAPA control	IAQTA control	IAQTA control			
Rating Data Type	%	%	%	%	%	%	%	%			
Rating Unit	Jul-10-06	Sep-15-06	Jul-10-06	Sep-15-06	Jul-10-06	Sep-15-06	Jul-10-06	Sep-15-06			
Rating Date	AD	SC	AD	SC	AD	SC	AD	SC			
Assessed By	42 DA-A	109 DA-A	42 DA-A	109 DA-A	42 DA-A	109 DA-A	42 DA-A	109 DA-A			
Trt-Eval Interval											
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
1	Roundup WMAX	22	OZ/A	99 a	99 a	99 a	67 b	100 a	99 a	99 a	99 a
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
2	Roundup WMAX	22	OZ/A	99 a	99 a	99 a	86 a	100 a	99 a	100 a	99 a
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
	Dual Magnum	8	OZ/A								
3	Roundup WMAX	22	OZ/A	98 a	99 a	99 a	81 a	100 a	99 a	99 a	99 a
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
	Dual Magnum	12	OZ/A								
4	Roundup WMAX	22	OZ/A	98 a	99 a	95 a	70 b	100 a	99 a	98 a	99 a
	Dual Magnum	8	OZ/A								
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
5	Roundup WMAX	22	OZ/A	99 a	99 a	95 a	84 a	100 a	99 a	99 a	99 a
	Dual Magnum	8	OZ/A								
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
	Dual Magnum	8	OZ/A								
6	Roundup WMAX	22	OZ/A	99 a	99 a	99 a	82 a	100 a	99 a	98 a	99 a
	Dual Magnum	8	OZ/A								
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
	Dual Magnum	12	OZ/A								
7	Roundup WMAX	22	OZ/A	99 a	99 a	95 a	68 b	100 a	99 a	99 a	99 a
	Dual Magnum	12	OZ/A								
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
8	Roundup WMAX	22	OZ/A	98 a	99 a	99 a	86 a	100 a	99 a	98 a	99 a
	Dual Magnum	12	OZ/A								
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
	Dual Magnum	8	OZ/A								
9	Roundup WMAX	22	OZ/A	99 a	99 a	99 a	85 a	100 a	99 a	99 a	99 a
	Dual Magnum	12	OZ/A								
	Roundup WMAX	22	OZ/A								
	Direx	1.5	PT/A								
	Dual Magnum	12	OZ/A								
LSD (P=.05)	2.6	0.0	5.4	8.3	0.4	0.0	2.6	0.0			
Standard Deviation	1.5	0.0	3.1	4.8	0.3	0.0	1.5	0.0			
CV	1.5	0.0	3.21	6.1	0.25	0.0	1.51	0.0			
Bartlett's X2	8.685	0.0	12.976	5.25	0.0	0.0	12.669	0.0			
P(Bartlett's X2)	0.122	.	0.011*	0.63	1.00	.	0.081	.			

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

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Weed Code	MUDNU			
Rating Data Type	control			
Rating Unit	%			
Rating Date	Sep-15-06			
Assessed By	SC			
Trt-Eval Interval	109 DA-A			
Trt No.	Treatment Name	Rate	Unit	
				9
1	Roundup WMAX	22	OZ/A	74 ab
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
2	Roundup WMAX	22	OZ/A	86 a
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
	Dual Magnum	8	OZ/A	
3	Roundup WMAX	22	OZ/A	78 ab
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
	Dual Magnum	12	OZ/A	
4	Roundup WMAX	22	OZ/A	71 ab
	Dual Magnum	8	OZ/A	
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
5	Roundup WMAX	22	OZ/A	86 a
	Dual Magnum	8	OZ/A	
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
6	Roundup WMAX	22	OZ/A	79 ab
	Dual Magnum	8	OZ/A	
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
7	Roundup WMAX	22	OZ/A	67 b
	Dual Magnum	12	OZ/A	
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
8	Roundup WMAX	22	OZ/A	78 ab
	Dual Magnum	12	OZ/A	
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
9	Roundup WMAX	22	OZ/A	80 ab
	Dual Magnum	12	OZ/A	
	Roundup WMAX	22	OZ/A	
	Direx	1.5	PT/A	
	Dual Magnum	12	OZ/A	
LSD (P=.05)				14.4
Standard Deviation				8.3
CV				10.71
Bartlett's X2				8.839
P(Bartlett's X2)				0.356

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

University of Georgia

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Trial ID: C43-06 Study Dir.: Stanley Culpepper
 Location: Sunbelt Expo Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: University of Georgia
Postal Code: 31794
Investigator: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: University of Georgia
Postal Code: 31794

TRIAL LOCATION

City: Moultrie **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** excellent
Postal Code: USA **Initiation Date:** May-05-06
Country: _____ **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.	DIGSA	large crabgrass	
2.	COMBE	tropical spiderwort	
3.	AMAPA	Palmer amaranth	
4.	IAQTA	smallflower morningglory	
5.	MUDNU	doveweed	

Crop 1: GOSHI COTTON, SHORT STAPLE **Variety:** DP 555 BRR
Planting Date: May-05-06 **Planting Method:** seeded
Rate: 3 ft **Depth:** 0.5 in **Perennial Age:** _____
Row Spacing: 36 inch **Spacing Within Row:** 4 inch **Seed Bed:** flat, clean
Soil Temperature: 81 F **Soil Moisture:** irrigated **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 22 FT **Reps:** 3
Site Type: Sunbelt Expo
Tillage Type: conventional **Study Design:** FACTORIAL

Trial Initiation Comments:

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	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 88	% OM: 6	Texture: _____
% Silt: 12	pH: 1.2	Soil Name: _____
% Clay: 0	CEC: _____	Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: _____

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A	B
Application Date:	May-29-06	Jun-22-06
Time of Day:	9:30 am	1:45pm
Application Method:	broadcast	broadcast
Application Timing:	POST	PDIR
Applic. Placement:	overtop	directed
Air Temp., Unit:	79 F	99 F
% Relative Humidity:	44	47
Wind Velocity, Unit:	3 mph	3 mph
Dew Presence (Y/N):	y	n
Water Hardness:		
Soil Temp., Unit:	80 F	108 F
Soil Moisture:	perfect	moist
% Cloud Cover:	20	20

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GOSHI POST	GOSHI PDIR
Stage Scale:	4 leaf	14 leaf
Height, Unit:	5 inch	22 inch

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WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	DIGSA POST	DIGSA PDIR
Stage Scale:	3-8 inch	1-4 inch
Density, Unit:	6 ydsq	1 ydsq
Weed 2 Code, Stage:	COMBE POST	COMBE PDIR
Stage Scale:	1-4 inch	< 4 inch
Density, Unit:	12 ydsq	8 ydsq
Weed 3 Code, Stage:	AMAPA POST	AMAPA PDIR
Stage Scale:	1-4 inch	<2 inch
Density, Unit:	1 ydsq	0.2 ydsq
Weed 4 Code, Stage:	IAQTA POST	IAQTA PDIR
Stage Scale:	1-4 inch	< 5 inch
Density, Unit:	3 ydsq	2 ydsq
Weed 5 Code, Stage:	MUDNU POST	MUDNU PDIR
Stage Scale:	not up	<0.1 in
Density, Unit:	0 ydsq	12 ydsq

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	backpack	backpack
Operating Pressure:	24	18
Nozzle Type:	flat fan	floodjet
Nozzle Size:	11002	TK2
Nozzle Spacing, Unit:	18 inch	36 inch
Nozzles/Row:	2	1
Band Width, Unit:	4.5 ft	
Boom Length, Unit:		
Boom Height, Unit:	15 inch	10 inch
Ground Speed, Unit:	3 mph	3 mph
Incorporation Equip.:		
Hours to Incorp.:		
Incorp. Depth, Unit:		
Carrier:	water	water
Spray Volume, Unit:	14.8 GPA	14.8 GPA
Spray pH:		
Propellant:	CO2	CO2
Tank Mix (Y/N):	y	y

Trt No	Treatment Application Comment