

# University of Georgia

RR cotton and weed response to various Mon formulations.

Prot (2008-01-09-02)

Trial ID: C45-08

Study Dir.: Stanley Culpepper

Location: Sunbelt Expo

Investigator: Stanley Culpepper

Reps: 3

Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .57876)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Grow Rate Unit	Appl Stg	Code	Amt Product to Measure	Plot No. By Rep		
										1	2	3
1	MON 76238	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	101	214	309
2	MON 76237	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	102	218	304
3	MON 79790	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	103	208	301
4	MON 76301	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	104	217	305
5	MON 76410	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	105	212	318
6	MON 76186	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	106	202	308
7	MON 76415	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	107	209	313
8	MON 76238	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	108	206	316
9	MON 76237	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	109	204	310
10	MON 79790	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	110	203	306
11	MON 76301	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	111	205	311
12	MON 76410	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	112	201	303
13	MON 76186	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	113	215	314
14	MON 76415	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	114	213	312
15	MON 79616	4.2	L	L	0.75	LB A/A	POST	A	12.06 ml/mx	115	210	315
16	MON 79614	5	L	L	0.75	LB A/A	POST	A	10.13 ml/mx	116	211	307
17	MON 79685	4	L	L	0.75	LB A/A	POST	A	12.67 ml/mx	117	216	317
18	Non-treated									118	207	302
19	MON 76236	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	119	219	319

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
35.094	ml	MON 76238	4.5	L	
35.094	ml	MON 76237	4.5	L	
35.094	ml	MON 79790	4.5	L	
35.094	ml	MON 76301	4.5	L	
35.094	ml	MON 76410	4.5	L	
35.094	ml	MON 76186	4.5	L	
35.094	ml	MON 76415	4.5	L	
15.080	ml	MON 79616	4.2	L	
12.668	ml	MON 79614	5	L	
15.834	ml	MON 79685	4	L	
14.075	ml	MON 76236	4.5	L	

\* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1 liters (mix size basis).

\* Product amount calculations increased 25 % for overage adjustment.

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Study Dir.: Stanley Culpepper

Location: Sunbelt Expo

Investigator: Stanley Culpepper

## Trial Comments

OBJECTIVE: Compare formulations of glyphosate for the control of various weeds.

Palmer amaranth and large crabgrass:

1. All formulations and rates provided excellent and similar control.

Tropical spiderwort:

1. Little to no differences were noted among formulations or rates.

Pitted morningglory:

1. MON 76237 and MON 76301 at 0.75 lb tended to have the most regrowth at 27 DAT.

Cotton Response:

1. No injury was detected.

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Weed Code	INJURY control	INJURY control	AMAPA control	AMAPA control	AMAPA control	AMAPA control	COMBE control	COMBE control		
Rating Data Type	control	control	control	control	control	control	control	control		
Rating Unit	%	%	%	%	%	%	%	%		
Rating Date	Jun-12-08	Jun-18-08	Jun-12-08	Jun-18-08	Jun-25-08	Jul-03-08	Jun-12-08	Jun-18-08		
Trt-Eval Interval	6 DA-A	12 DA-A	6 DA-A	12 DA-A	19 DA-A	27 DA-A	6 DA-A	12 DA-A		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate		
1	2	3	4	5	6	7	8			
1	MON 76238	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	69 ab	77 a
2	MON 76237	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	75 a	76 ab
3	MON 79790	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	65 a-d	77 a
4	MON 76301	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	63 a-d	77 a
5	MON 76410	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	67 a-d	73 abc
6	MON 76186	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	52 cd	68 abc
7	MON 76415	1.12 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	68 abc	75 ab
8	MON 76238	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	62 a-d	74 abc
9	MON 76237	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	66 a-d	73 abc
10	MON 79790	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	55 bcd	68 abc
11	MON 76301	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	59 a-d	75 ab
12	MON 76410	0.75 LB A/A	1 a	0 a	99 a	99 a	99 a	99 a	65 a-d	75 ab
13	MON 76186	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	68 abc	73 abc
14	MON 76415	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	52 cd	68 abc
15	MON 79616	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	68 abc	69 abc
16	MON 79614	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	53 bcd	68 abc
17	MON 79685	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	50 d	67 bc
18	Non-treated		0 b	0 a	0 b	0 b	0 b	0 b	0 e	2 d
19	MON 76236	0.75 LB A/A	0 b	0 a	99 a	99 a	99 a	99 a	53 bcd	65 c
LSD (P=.05)			0.4	0.0	0.0	0.0	0.0	0.0	14.4	8.0
Standard Deviation			0.3	0.0	0.0	0.0	0.0	0.0	8.7	4.9
CV			754.98	0.0	0.0	0.0	0.0	0.0	14.88	7.12
Bartlett's X2			0.0	0.0	0.0	0.0	0.0	0.0	13.764	13.589
P(Bartlett's X2)			.	.	.	.	.	.	0.684	0.755

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

## University of Georgia

Weed Code	COMBE	COMBE	IPOLA	IPOLA	IPOLA	IPOLA	DIGSA	DIGSA		
Rating Data Type	control	control	control	control	control	control	control	control		
Rating Unit	%	%	%	%	%	%	%	%		
Rating Date	Jun-25-08	Jul-03-08	Jun-12-08	Jun-18-08	Jun-25-08	Jul-03-08	Jun-18-08	Jun-25-08		
Trt-Eval Interval	19 DA-A	27 DA-A	6 DA-A	12 DA-A	19 DA-A	27 DA-A	12 DA-A	19 DA-A		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate		
		Unit								
			9	10	11	12	13	14	15	16
1	MON 76238	1.12 LB A/A	80 ab	70 ab	76 a	83 a	83 a	75 a	99 a	99 a
2	MON 76237	1.12 LB A/A	83 a	67 ab	73 abc	80 abc	82 ab	70 abc	99 a	99 a
3	MON 79790	1.12 LB A/A	83 a	72 a	73 abc	83 a	80 ab	67 bc	99 a	99 a
4	MON 76301	1.12 LB A/A	82 ab	63 ab	72 a-d	80 abc	80 ab	70 abc	99 a	99 a
5	MON 76410	1.12 LB A/A	80 ab	63 ab	73 abc	80 abc	77 bc	70 abc	99 a	99 a
6	MON 76186	1.12 LB A/A	73 bc	60 ab	63 cd	77 c	77 bc	70 abc	99 a	99 a
7	MON 76415	1.12 LB A/A	81 ab	57 ab	74 ab	82 ab	82 ab	70 abc	99 a	99 a
8	MON 76238	0.75 LB A/A	78 ab	67 ab	68 a-d	80 abc	80 ab	70 abc	99 a	99 a
9	MON 76237	0.75 LB A/A	80 ab	57 ab	72 a-d	80 abc	82 ab	65 cd	99 a	99 a
10	MON 79790	0.75 LB A/A	80 ab	50 b	69 a-d	78 bc	78 abc	70 abc	99 a	99 a
11	MON 76301	0.75 LB A/A	80 ab	62 ab	63 cd	82 ab	80 ab	60 d	99 a	99 a
12	MON 76410	0.75 LB A/A	82 ab	67 ab	74 ab	80 abc	82 ab	70 abc	99 a	99 a
13	MON 76186	0.75 LB A/A	78 ab	63 ab	76 ab	80 abc	80 ab	72 abc	99 a	99 a
14	MON 76415	0.75 LB A/A	73 abc	63 ab	72 a-d	80 abc	80 ab	68 abc	99 a	99 a
15	MON 79616	0.75 LB A/A	78 ab	67 ab	74 abc	79 bc	80 ab	70 abc	99 a	99 a
16	MON 79614	0.75 LB A/A	75 ab	73 a	73 abc	78 bc	80 ab	70 abc	99 a	99 a
17	MON 79685	0.75 LB A/A	74 abc	60 ab	62 d	77 c	82 ab	74 ab	99 a	99 a
18	Non-treated		0 d	0 c	0 e	0 d	0 d	0 e	0 b	0 b
19	MON 76236	0.75 LB A/A	65 c	63 ab	65 bcd	80 abc	73 c	70 abc	99 a	99 a
LSD (P=.05)			8.8	17.8	8.9	3.9	5.2	5.9	0.0	0.0
Standard Deviation			5.3	10.8	5.4	2.3	3.1	3.6	0.0	0.0
CV			7.22	17.88	8.09	3.08	4.16	5.46	0.0	0.0
Bartlett's X2			11.519	18.445	19.847	2.313	3.853	5.826	0.0	0.0
P(Bartlett's X2)			0.645	0.298	0.282	0.993	0.921	0.443	.	.

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

# University of Georgia

Weed Code				DIGSA
Rating Data Type				control
Rating Unit				%
Rating Date				Jul-03-08
Trt-Eval Interval				27 DA-A
Trt No.	Treatment Name	Rate	Unit	
				17
1	MON 76238	1.12	LB A/A	99 a
2	MON 76237	1.12	LB A/A	99 a
3	MON 79790	1.12	LB A/A	99 a
4	MON 76301	1.12	LB A/A	99 a
5	MON 76410	1.12	LB A/A	99 a
6	MON 76186	1.12	LB A/A	99 a
7	MON 76415	1.12	LB A/A	99 a
8	MON 76238	0.75	LB A/A	99 a
9	MON 76237	0.75	LB A/A	99 a
10	MON 79790	0.75	LB A/A	99 a
11	MON 76301	0.75	LB A/A	99 a
12	MON 76410	0.75	LB A/A	99 a
13	MON 76186	0.75	LB A/A	99 a
14	MON 76415	0.75	LB A/A	99 a
15	MON 79616	0.75	LB A/A	99 a
16	MON 79614	0.75	LB A/A	99 a
17	MON 79685	0.75	LB A/A	99 a
18	Non-treated			0 b
19	MON 76236	0.75	LB A/A	99 a
LSD (P=.05)				0.0
Standard Deviation				0.0
CV				0.0
Bartlett's X2				0.0
P(Bartlett's X2)				.

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



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## MAINTENANCE

Field Prep./Maintenance:

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

### SOIL DESCRIPTION

% Sand: 88	% OM: 1.2	Texture: loamy sand
% Silt: 12	pH: 6.0	Soil Name: _____
% Clay: 0	CEC: _____	Fert. Level: _____

### ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

### MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: \_\_\_\_\_

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_\_\_\_

### APPLICATION DESCRIPTION

	A
Application Date:	Jun-05-08
Time of Day:	3 pm
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	92 F
% Relative Humidity:	50
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	Y
Water Hardness:	
Soil Temp., Unit:	92 F
Soil Moisture:	moist
% Cloud Cover:	0

### CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI A
Stage Scale:	6 leaf
Height, Unit:	8 inch

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### WEED STAGE AT EACH APPLICATION

	A
<b>Weed 1 Code, Stage:</b>	AMAPA A
<b>Stage Scale:</b>	6 inch
<b>Density, Unit:</b>	3 ydsq
<b>Weed 2 Code, Stage:</b>	COMBE A
<b>Stage Scale:</b>	2 inch
<b>Density, Unit:</b>	10 ydsq
<b>Weed 3 Code, Stage:</b>	IPOLA A
<b>Stage Scale:</b>	4 inch
<b>Density, Unit:</b>	5 ydsq
<b>Weed 4 Code, Stage:</b>	DIGSA A
<b>Stage Scale:</b>	6 inch
<b>Density, Unit:</b>	15 ydsq

### APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment