

University of Georgia

RR cotton and weed response to various Mon formulations.

Prot (2008-01-09-02)

Trial ID: C47-08

Study Dir.: Stanley Culpepper

Location: Attapulgus

Investigator: Stanley Culpepper

Reps: 4

Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .77168)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Grow Unit	Appl Stg	Code	Amt Product to Measure	Plot No. By Rep			
										1	2	3	4
1	MON 76238	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	214	309	411	515
2	MON 76237	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	218	304	409	511
3	MON 79790	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	208	301	413	514
4	MON 76301	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	217	305	414	508
5	MON 76410	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	212	318	415	517
6	MON 76186	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	202	308	402	505
7	MON 76415	4.5	L	L	1.12	LB A/A	POST	A	16.82 ml/mx	209	313	417	507
8	MON 76238	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	206	316	410	502
9	MON 76237	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	204	310	401	506
10	MON 79790	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	203	306	412	504
11	MON 76301	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	205	311	408	516
12	MON 76410	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	201	303	404	513
13	MON 76186	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	215	314	407	501
14	MON 76415	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	213	312	418	512
15	MON 79616	4.2	L	L	0.75	LB A/A	POST	A	12.06 ml/mx	210	315	406	509
16	MON 79614	5	L	L	0.75	LB A/A	POST	A	10.13 ml/mx	211	307	403	518
17	MON 79685	4	L	L	0.75	LB A/A	POST	A	12.67 ml/mx	216	317	416	503
18	Non-treated									207	302	405	510
19	MON 76236	4.5	L	L	0.75	LB A/A	POST	A	11.26 ml/mx	219	319	419	519

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: Attapulcus

Investigator: Stanley Culpepper

Trial Comments

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

Texas panicum and Carpetweed response:

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

Sicklepod:

1. Mon 79614 provided 15 and 48% less control than all other formulations at 19 and 27 DAT, respectively.

Florida pusley:

1. Pusley control at 12 DAT was similar with most systems with control ranging from 71 to 79%. At 19 and 27 DAT once regrowth began, MON 76237, MON 76238, MON 76301, MON 76186 and MON 76410 at 0.75 lb tended to have greatest level of regrowth or the lowest level of control.

Smallflower morningglory:

1. At 6 DAT, MON 79614 tended to be the least effective formulation. By 19 DAT, control was similar and ranged from 87 to 92% control with all formulations.

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Trial ID: C47-08

Study Dir.: Stanley Culpepper

Location: Attapulgus

Investigator: Stanley Culpepper

Weed Code	INJURY	INJURY	PANTE	PANTE	PANTE	PANTE	CASOB	CASOB		
Crop Code	GOSHI	GOSHI	PANTE	PANTE	PANTE	PANTE	CASOB	CASOB		
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 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
2	MON 76237	1.12 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
3	MON 79790	1.12 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
4	MON 76301	1.12 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
5	MON 76410	1.12 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
6	MON 76186	1.12 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	88 a	98 ab
7	MON 76415	1.12 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
8	MON 76238	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	97 b
9	MON 76237	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
10	MON 79790	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
11	MON 76301	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	89 a	99 a
12	MON 76410	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
13	MON 76186	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	86 a	99 a
14	MON 76415	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
15	MON 79616	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
16	MON 79614	0.75 LB A/A	0 a	0 a	98 b	99 a	99 a	99 a	76 b	75 c
17	MON 79685	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	99 a
18	Non-treated		0 a	0 a	0 c	0 b	0 b	0 b	0 c	0 d
19	MON 76236	0.75 LB A/A	0 a	0 a	99 a	99 a	99 a	99 a	90 a	97 ab
LSD (P=.05)			0.0	0.0	1.0	0.0	0.0	0.0	4.3	1.7
Standard Deviation			0.0	0.0	0.7	0.0	0.0	0.0	3.0	1.2
CV			0.0	0.0	0.73	0.0	0.0	0.0	3.58	1.31
Bartlett's X2			0.0	0.0	0.0	0.0	0.0	0.0	5.869	3.333
P(Bartlett's X2)			0.118	0.189

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

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Weed Code	CASOB	CASOB	RCHSC	RCHSC	RCHSC	RCHSC	MOLVE	MOLVE		
Crop Code										
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-12-08	Jun-25-08		
Trt-Eval Interval	19 DA-A	27 DA-A	6 DA-A	12 DA-A	19 DA-A	27 DA-A	6 DA-A	19 DA-A		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate		
		Unit	Unit	Unit	Unit	Unit	Unit	Unit		
1	MON 76238	1.12 LB A/A	99 a	99 a	68 a	76 abc	71 abc	74 abc	99 a	99 a
2	MON 76237	1.12 LB A/A	99 a	99 a	68 a	76 abc	68 a-d	71 a-d	99 a	99 a
3	MON 79790	1.12 LB A/A	99 a	99 a	71 a	75 abc	73 ab	75 ab	99 a	99 a
4	MON 76301	1.12 LB A/A	99 a	99 a	66 a	75 abc	66 a-d	63 c-f	99 a	99 a
5	MON 76410	1.12 LB A/A	99 a	99 a	69 a	76 abc	61 b-e	61 def	99 a	99 a
6	MON 76186	1.12 LB A/A	96 a	99 a	68 a	80 a	73 ab	76 a	99 a	99 a
7	MON 76415	1.12 LB A/A	99 a	99 a	68 a	76 abc	73 ab	75 abc	99 a	99 a
8	MON 76238	0.75 LB A/A	99 a	99 a	67 a	75 abc	60 cde	60 def	99 a	99 a
9	MON 76237	0.75 LB A/A	99 a	99 a	68 a	74 abc	50 e	53 f	99 a	99 a
10	MON 79790	0.75 LB A/A	99 a	99 a	70 a	78 ab	66 a-d	64 b-f	99 a	99 a
11	MON 76301	0.75 LB A/A	99 a	99 a	63 ab	75 abc	61 b-e	58 ef	99 a	99 a
12	MON 76410	0.75 LB A/A	99 a	99 a	68 a	71 c	59 de	58 ef	99 a	99 a
13	MON 76186	0.75 LB A/A	94 a	99 a	64 ab	74 abc	64 a-d	57 ef	99 a	99 a
14	MON 76415	0.75 LB A/A	99 a	98 a	68 a	78 ab	71 abc	71 a-d	99 a	99 a
15	MON 79616	0.75 LB A/A	99 a	99 a	51 b	73 bc	66 a-d	61 def	99 a	99 a
16	MON 79614	0.75 LB A/A	86 b	50 b	60 ab	73 bc	70 a-d	66 a-e	99 a	99 a
17	MON 79685	0.75 LB A/A	99 a	99 a	68 a	78 ab	68 a-d	66 a-e	99 a	99 a
18	Non-treated		0 c	0 c	0 c	0 d	0 f	0 g	0 b	0 b
19	MON 76236	0.75 LB A/A	99 a	99 a	66 a	75 abc	76 a	72 a-d	99 a	99 a
LSD (P=.05)			6.1	2.8	12.3	4.9	10.2	10.3	0.0	0.0
Standard Deviation			4.3	1.9	8.7	3.5	7.2	7.3	0.0	0.0
CV			4.64	2.14	13.9	4.89	11.46	11.7	0.0	0.0
Bartlett's X2			4.047	4.591	77.451	15.264	24.037	21.922	0.0	0.0
P(Bartlett's X2)			0.132	0.032*	0.001*	0.505	0.089	0.146	.	.

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

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Weed Code	IAQTA	IAQTA	IAQTA	IAQTA			
Crop Code							
Rating Data Type	control	control	control	control			
Rating Unit	%	%	%	%			
Rating Date	Jun-12-08	Jun-18-08	Jun-25-08	Jul-03-08			
Trt-Eval Interval	6 DA-A	12 DA-A	19 DA-A	27 DA-A			
Trt No.	Treatment Name	Rate	Unit	17	18	19	20
1	MON 76238	1.12	LB A/A	70 a	86 a-d	89 a	98 a
2	MON 76237	1.12	LB A/A	69 a	87 abc	88 a	97 a
3	MON 79790	1.12	LB A/A	71 a	85 a-d	90 a	98 a
4	MON 76301	1.12	LB A/A	69 a	87 abc	89 a	98 a
5	MON 76410	1.12	LB A/A	69 a	87 abc	89 a	98 a
6	MON 76186	1.12	LB A/A	69 a	88 a	90 a	98 a
7	MON 76415	1.12	LB A/A	70 a	87 ab	90 a	98 a
8	MON 76238	0.75	LB A/A	68 a	85 bcd	88 a	97 a
9	MON 76237	0.75	LB A/A	69 a	87 ab	89 a	98 a
10	MON 79790	0.75	LB A/A	70 a	87 ab	88 a	98 a
11	MON 76301	0.75	LB A/A	68 a	86 abc	90 a	97 a
12	MON 76410	0.75	LB A/A	70 a	84 cd	90 a	98 a
13	MON 76186	0.75	LB A/A	68 a	86 a-d	89 a	98 a
14	MON 76415	0.75	LB A/A	70 a	88 a	89 a	98 a
15	MON 79616	0.75	LB A/A	70 a	87 abc	90 a	98 a
16	MON 79614	0.75	LB A/A	63 b	83 d	88 a	98 a
17	MON 79685	0.75	LB A/A	69 a	87 ab	89 a	98 a
18	Non-treated			0 c	0 e	0 b	0 b
19	MON 76236	0.75	LB A/A	69 a	85 a-d	92 a	98 a
LSD (P=.05)				3.3	2.7	3.8	1.2
Standard Deviation				2.3	1.9	2.7	0.9
CV				3.56	2.31	3.22	0.93
Bartlett's X2				10.058	13.283	7.209	0.299
P(Bartlett's X2)				0.901	0.504	0.782	1.00

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

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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: 84	% OM: 1.3	Texture: loamy sand
% Silt: 8	pH: 6.0	Soil Name: _____
% Clay: 8	CEC: _____	Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: irrigated

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A
Application Date:	Jun-06-08
Time of Day:	7:00 am
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	78 F
% Relative Humidity:	65
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	Y
Water Hardness:	
Soil Temp., Unit:	76 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI A
Stage Scale:	4 leaf
Height, Unit:	5 in

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	IAQTA A
Stage Scale:	3 in
Density, Unit:	2 ydsq
Weed 2 Code, Stage:	CASOB A
Stage Scale:	3 in
Density, Unit:	2 ydsq
Weed 3 Code, Stage:	PANTE A
Stage Scale:	6 in
Density, Unit:	15 ydsq
Weed 4 Code, Stage:	RCHSC A
Stage Scale:	2.5 in
Density, Unit:	2 ydsq
Weed 5 Code, Stage:	MOLVE A
Stage Scale:	3 in
Density, Unit:	10 ydsq

APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment