

University of Georgia

RR Flex cotton response to glyphosate/V-10204 mixtures.

Trial ID: C40-07

Study Dir.: Culpepper

Location: Ponder Farm

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	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. By Rep			
											1	2	3	4
1	WeatherMax Cotton 1 leaf	4.5	L		22	OZ/A		A	11.61 ml/mx		101	209	312	405
2	WeatherMax Cotton 5 leaf	4.5	L		22	OZ/A		B	11.61 ml/mx		102	201	305	411
3	WeatherMax Cotton 9 leaf	4.5	L		22	OZ/A		C	11.61 ml/mx		103	207	301	409
4	WeatherMax V-10204 Cotton 1 leaf	4.5 85	L WG		22 0.106	OZ/A LB A/A		A A	11.61 ml/mx 1.01 g/mx		104	205	311	410
5	WeatherMax V-10204 Cotton 5 leaf	4.5 85	L WG		22 0.106	OZ/A LB A/A		B B	11.61 ml/mx 1.01 g/mx		105	208	304	407
6	WeatherMax V-10204 Cotton 9 leaf	4.5 85	L WG		22 0.106	OZ/A LB A/A		C C	11.61 ml/mx 1.01 g/mx		106	203	309	403
7	WeatherMax V-10204 Cotton 1 leaf	4.5 85	L WG		22 0.213	OZ/A LB A/A		A A	11.61 ml/mx 2.029 g/mx		107	212	310	412
8	WeatherMax V-10204 Cotton 5 leaf	4.5 85	L WG		22 0.213	OZ/A LB A/A		B B	11.61 ml/mx 2.029 g/mx		108	204	306	402
9	WeatherMax V-10204 Cotton 9 leaf	4.5 85	L WG		22 0.213	OZ/A LB A/A		C C	11.61 ml/mx 2.029 g/mx		109	211	303	408
10	WeatherMax V-10204 Cotton 1 leaf	4.5 85	L WG		22 0.32	OZ/A LB A/A		A A	11.61 ml/mx 3.048 g/mx		110	206	307	404
11	WeatherMax V-10204 Cotton 5 leaf	4.5 85	L WG		22 0.32	OZ/A LB A/A		B B	11.61 ml/mx 3.048 g/mx		111	202	308	401
12	WeatherMax V-10204 Cotton 9 leaf	4.5 85	L WG		22 0.32	OZ/A LB A/A		C C	11.61 ml/mx 3.048 g/mx		112	210	302	406

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
174.198	ml	WeatherMax	4.5	L	
22.825	g	V-10204	85	WG	

* '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.

University of Georgia

RR Flex cotton response to glyphosate/V-10204 mixtures.

Trial ID: C40-07

Study Dir.: Culpepper

Location: Ponder Farm

Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Determine cotton response to V-10204 plus Roundup WeatherMax applied overtop of irrigated cotton at various growth stages.

Cotton Response:

1. At each application cotton was vigorously growing.
2. At 4 d after making applications to 1 leaf cotton, injury ranged from 20 to 26%. Injury (11 to 28%) was still evident at 35 DAT.
3. At 8 d after making applications to 5 leaf cotton, injury ranged from 35 to 41%. Injury (18 to 35%) was still evident at 24 DAT.
4. At 5 d after making applications to 9 leaf cotton, injury ranged from 25 to 39%.
4. By 60 d after the 1 leaf application, 49 d after the 5 leaf application, and 25 d after the 9 leaf application, cotton injury was no longer detectable.

Cotton Yield:

1. Main effect means were significant.
2. When pooled over application timings, yield from cotton treated with WeatherMax alone or mixed with V-10204 at 0.106 lb ai was at least 7% greater than yield from cotton treated with WeatherMax plus V-10204 at 0.213 or 0.32 lb ai/A.
3. When pooled over herbicide treatments, yields were similar when cotton was treated at the 1 or 5 leaf timing but these yields were at least 6% less than that of cotton treated at the 9 leaf stage of growth.

GENERAL COMMENTS:

May 2: Prowl 1 qt/A applied over trial area.

June 20: Glyphosate was applied over the entire trial area removing weeds.

University of Georgia

RR Flex cotton response to glyphosate/V-10204 mixtures.

Trial ID: C40-07

Study Dir.: Culpepper

Location: Ponder Farm

Investigator: Stanley Culpepper

Weed Code	INJURY	INJURY	INJURY	INJURY	INJURY	INJURY	SEED	SEED			
Crop Code	cotton	cotton	cotton	cotton	cotton	cotton	cotton	cotton			
Rating Data Type	%	%	%	%	%	%	YIELD	YIELD			
Rating Unit	injury	injury	injury	injury	injury	injury	LB/PLOT	LB/A			
Rating Date	May-20-07	Jun-04-07	Jun-10-07	Jun-16-07	Jun-20-07	Jul-15-07	Aug-01-07	Aug-01-07			
Trt-Eval Interval	4 DA-A	8 DA-B	14 DA-B	5 DA-C	9 DA-C	34 DA-C					
ARM Action Codes								TY1			
# Subsamples, Dec.								1			
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
1	WeatherMax Cotton 1 leaf	22 OZ/A		0 c	0 e	0 d	0 e	1 e	0 a	10 a	5851.6 a
2	WeatherMax Cotton 5 leaf	22 OZ/A		0 c	0 e	0 d	0 e	0 e	0 a	9 abc	5389.8 abc
3	WeatherMax Cotton 9 leaf	22 OZ/A		0 c	0 e	0 d	1 e	0 e	0 a	10 ab	5607.6 ab
4	WeatherMax V-10204 Cotton 1 leaf	22 OZ/A 0.106 LB A/A		21 b	11 d	15 c	19 d	11 d	0 a	9 bc	5221.4 bc
5	WeatherMax V-10204 Cotton 5 leaf	22 OZ/A 0.106 LB A/A		0 c	35 b	22 b	25 cd	19 cd	0 a	9 abc	5250.4 abc
6	WeatherMax V-10204 Cotton 9 leaf	22 OZ/A 0.106 LB A/A		0 c	0 e	0 d	25 cd	18 cd	0 a	10 ab	5761.5 ab
7	WeatherMax V-10204 Cotton 1 leaf	22 OZ/A 0.213 LB A/A		24 a	13 cd	23 b	23 cd	22 bc	0 a	8 cd	4890.3 cd
8	WeatherMax V-10204 Cotton 5 leaf	22 OZ/A 0.213 LB A/A		0 c	35 b	29 a	43 b	26 bc	0 a	8 cd	4925.2 cd
9	WeatherMax V-10204 Cotton 9 leaf	22 OZ/A 0.213 LB A/A		0 c	0 e	0 d	33 bc	22 bc	0 a	9 abc	5346.3 abc
10	WeatherMax V-10204 Cotton 1 leaf	22 OZ/A 0.32 LB A/A		26 a	16 c	24 b	36 b	28 b	0 a	8 cd	4780.0 cd
11	WeatherMax V-10204 Cotton 5 leaf	22 OZ/A 0.32 LB A/A		0 c	41 a	31 a	53 a	35 a	0 a	8 d	4358.9 d
12	WeatherMax V-10204 Cotton 9 leaf	22 OZ/A 0.32 LB A/A		0 c	0 e	0 d	39 b	23 bc	0 a	9 abc	5320.1 abc
LSD (P=.05)				2.8	4.4	4.5	9.5	7.3	0.0	0.9	538.30
Standard Deviation				2.0	3.0	3.1	6.6	5.1	0.0	0.6	372.81
CV				33.27	24.04	26.29	26.89	29.85	0.0	7.13	7.13
Bartlett's X2				1.194	4.116	0.652	10.896	15.384	0.0	8.999	8.999
P(Bartlett's X2)				0.55	0.533	0.957	0.283	0.081	.	0.622	0.622

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

Column 8: TY1 = 580.8*[7]

University of Georgia

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 94	% OM: 6.4	Texture: sand	
% Silt: 2	pH: 1.3	Soil Name: Tifton sandy loam	
% Clay: 4	CEC: _____	Fert. Level: _____	

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: Dry but cotton was irrigated

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-16-07	May-27-07	Jun-11-07
Time of Day:	7:00 am	8:00 am	6:00 pm
Application Method:	broadcast	broadcast	broadcast
Application Timing:	post 1	5 leaf	9 leaf
Applic. Placement:	overtop	overtop	overtop
Air Temp., Unit:	67 F	69 F	94 F
% Relative Humidity:	54	73	39
Wind Velocity, Unit:	0 mph	0 mph	3 mph
Dew Presence (Y/N):	N	Y	N
Water Hardness:			
Soil Temp., Unit:	71 F	70 F	95 F
Soil Moisture:	moist	fair	fair
% Cloud Cover:	0	0	10

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GOSHI 1 leaf	GOSHI 5 leaf	GOSHI 9 leaf
Stage Scale:	1 leaf	5 leaf	9 leaf
Height, Unit:	1 inch	8 inch	13 inch

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	.	.	.
Stage Scale:	.		
Density, Unit:	.		
Weed 2 Code, Stage:			
Stage Scale:			
Density, Unit:			

University of Georgia

APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment