

# University of Georgia

RR Flex cotton response to V-10204 applied as a topical or directed application.

Trial ID: C20-07

Study Dir.: Culpepper

Location: Sunbelt Expo

Investigator: Stanley Culpepper

Reps: 4

Plots: 12 by 40 feet

Spray vol: 14.8 gal/ac

Mix size: 2 liters (min 2.4694)

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	Untreated										101	214	312	412
2	V-10204	85		WG	0.106	LB	A/A	POT	A	2.019 g/mx	102	201	313	413
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
3	V-10204	85		WG	0.213	LB	A/A	POT	A	4.058 g/mx	103	206	307	407
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
4	V-10204	85		WG	0.32	LB	A/A	POT	A	6.096 g/mx	104	203	309	409
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
5	Sequence	5.25		L	1.65	LB	A/A	POT	A	42.47 ml/mx	105	204	303	403
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
6	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	106	211	301	401
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
7	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	107	216	306	406
	V-10204	85		WG	0.106	LB	A/A	POT	A	2.019 g/mx				
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
8	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	108	205	310	410
	V-10204	85		WG	0.213	LB	A/A	POT	A	4.058 g/mx				
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
9	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	109	202	315	415
	V-10204	85		WG	0.32	LB	A/A	PD	C	6.096 g/mx				
	WeatherMax 4.5 L	4.5		L	22	OZ/A		PD	C	23.23 ml/mx				
10	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	110	209	316	416
	WeatherMax 4.5 L	4.5		L	22	OZ/A		PD	C	23.23 ml/mx				
	V-10204	85		WG	0.106	LB	A/A	PD	C	2.019 g/mx				
11	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	111	213	308	408
	WeatherMax 4.5 L	4.5		L	22	OZ/A		PD	C	23.23 ml/mx				
	V-10204	85		WG	0.213	LB	A/A	PD	C	4.058 g/mx				
12	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	112	208	302	402
	WeatherMax 4.5 L	4.5		L	22	OZ/A		PD	C	23.23 ml/mx				
	Valor	51		DG	0.063	LB	A/A	PD	C	2.0 g/mx				
13	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	113	215	304	404
	Sequence	5.25		L	1.64	LB	A/A	PD	C	42.21 ml/mx				
14	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	114	210	314	414
	V-10204	85		WG	0.106	LB	A/A	POT	B	2.019 g/mx				
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
15	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	115	212	311	411
	V-10204	85		WG	0.213	LB	A/A	POT	B	4.058 g/mx				
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 ml/mx				
16	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	A	23.23 ml/mx	116	207	305	405
	V-10204	85		WG	0.213	LB	A/A	POT	B	4.058 g/mx				
	WeatherMax 4.5 L	4.5		L	22	OZ/A		POT	B	23.23 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
50.698	g	V-10204	85	WG	
725.825	ml	WeatherMax 4.5 L	4.5	L	
105.845	ml	Sequence	5.25	L	

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Reps: 4                      Plots: 12 by 40 feet  
 Spray vol: 14.8 gal/ac      Mix size: 2 liters (min 2.4694)

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
2.500	g	Valor	51	DG	

- \* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).
- \* Product amount calculations increased 25 % for overage adjustment.

### Trial Comments

OBJECTIVE: Determine cotton and weed response to V-10204 applied POT and directed in cotton.

**COTTON RESPONSE:**

1. Cotton necrosis and spotting noted at 5 and 13 DAT after the 2 leaf cotton application was greater when V-10204 was applied in mixture with glyphosate than applied alone; however, cotton stunting later in the season at 35 and 40 d after treatment noted more cotton stunting when V-10204 was applied alone. This needs to be repeated but possibly suggest less uptake when V-10204 is applied in mixture with glyphosate because of greater cotton foliage burn immediately after the application.
2. Cotton necrosis at 8 d after making the 11 leaf POT cotton applications noted 15 to 28% injury with V-10204 applied in mixture with glyphosate.
3. Injury from Sequence, WeatherMax, or directed applications of V-10204 was insignificant. Valor directed caused 10 to 18% stem bronzing.

**WEED RESPONSE:**

**Morningglory:**

1. POST applications of WeatherMax mixtures provided 80 to 90% control at 13 d after the 2 lf applicatin. V-10204 provided less than 33% control.
2. Late in the season plots containing Valor at layby provided excellent control.

**Large crabgrass:**

1. POST applications of V-10204 provided poor control of emerged crabgrass. All glyphosate mixtures provided excellent control.

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Trial ID: C20-07

Study Dir.: Culpepper

Location: Sunbelt Expo

Investigator: Stanley Culpepper

Weed Code		cotton	cotton	cotton	cotton	IPOLA	IPOLA	IPOLA	DIGSA	
Crop Code		cotton	cotton	cotton	cotton	cotton	cotton	cotton	cotton	
Rating Data Type		%	%	%	%	%	%	%	%	
Rating Unit		injury	injury	injury	injury	control	control	control	control	
Rating Date		Jun-02-07	Jun-10-07	Jul-02-07	Jul-07-07	Jun-10-07	Jul-07-07	Jul-25-07	Jun-10-07	
Trt-Eval Interval		5 DA-A	13 DA-A	8 DA-B	13 DA-B	13 DA-A	13 DA-B	31 DA-B	13 DA-A	
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	Unit	Unit	
			1	2	3	4	5	6	7	8
1	Untreated		0 e	0 d	0 e	0 d	0 d	0 d	0 e	0 e
2	V-10204 WeatherMax 4.5 L	0.106 LB A/A 22 OZ/A	0 e	7 c	29 a	30 a	0 d	48 c	63 d	5 d
3	V-10204 WeatherMax 4.5 L	0.213 LB A/A 22 OZ/A	14 d	13 ab	27 a	30 a	19 c	50 c	64 cd	23 c
4	V-10204 WeatherMax 4.5 L	0.32 LB A/A 22 OZ/A	29 a	16 a	30 a	26 a	33 b	70 b	87 ab	28 b
5	Sequence WeatherMax 4.5 L	1.65 LB A/A 22 OZ/A	0 e	0 d	0 e	1 d	86 a	84 ab	86 ab	99 a
6	WeatherMax 4.5 L WeatherMax 4.5 L	22 OZ/A 22 OZ/A	0 e	0 d	0 e	0 d	89 a	85 ab	87 ab	99 a
7	WeatherMax 4.5 L V-10204 WeatherMax 4.5 L	22 OZ/A 0.106 LB A/A 22 OZ/A	19 c	10 bc	4 de	0 d	88 a	79 b	85 ab	99 a
8	WeatherMax 4.5 L V-10204 WeatherMax 4.5 L	22 OZ/A 0.213 LB A/A 22 OZ/A	25 b	16 a	11 bcd	3 d	88 a	83 ab	84 ab	99 a
9	WeatherMax 4.5 L V-10204 WeatherMax 4.5 L	22 OZ/A 0.32 LB A/A 22 OZ/A	0 e	0 d	7 cde	1 d	85 a	85 ab	87 ab	99 a
10	WeatherMax 4.5 L WeatherMax 4.5 L V-10204	22 OZ/A 22 OZ/A 0.106 LB A/A	0 e	0 d	4 de	3 d	85 a	73 b	76 bcd	99 a
11	WeatherMax 4.5 L WeatherMax 4.5 L V-10204	22 OZ/A 22 OZ/A 0.213 LB A/A	0 e	0 d	1 e	0 d	83 a	78 b	81 ab	99 a
12	WeatherMax 4.5 L WeatherMax 4.5 L Valor	22 OZ/A 22 OZ/A 0.063 LB A/A	0 e	0 d	18 b	11 c	88 a	99 a	96 a	99 a
13	WeatherMax 4.5 L Sequence	22 OZ/A 1.64 LB A/A	0 e	0 d	3 de	0 d	84 a	87 ab	88 ab	99 a
14	WeatherMax 4.5 L V-10204 WeatherMax 4.5 L	22 OZ/A 0.106 LB A/A 22 OZ/A	0 e	1 d	15 bc	2 d	81 a	79 b	76 bcd	99 a
15	WeatherMax 4.5 L V-10204 WeatherMax 4.5 L	22 OZ/A 0.213 LB A/A 22 OZ/A	0 e	0 d	28 a	18 b	85 a	85 ab	85 ab	99 a
16	WeatherMax 4.5 L V-10204 WeatherMax 4.5 L	22 OZ/A 0.213 LB A/A 22 OZ/A	0 e	0 d	28 a	18 b	84 a	83 ab	78 bc	99 a
LSD (P=.05)			2.5	3.7	8.4	6.6	7.0	14.6	13.2	3.3
Standard Deviation			1.7	2.6	5.9	4.6	4.9	10.2	9.2	2.3
CV			32.1	66.8	46.5	51.99	7.3	14.03	12.1	3.0
Bartlett's X2			1.287	5.264	19.004	19.369	19.738	16.156	33.713	0.084
P(Bartlett's X2)			0.732	0.385	0.088	0.022*	0.102	0.095	0.001*	0.959

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Weed Code					IPOLA	IPOLA	IPOLA	DIGSA
Crop Code	cotton	cotton	cotton	cotton	cotton	cotton	cotton	cotton
Rating Data Type	%	%	%	%	%	%	%	%
Rating Unit	injury	injury	injury	injury	control	control	control	control
Rating Date	Jun-02-07	Jun-10-07	Jul-02-07	Jul-07-07	Jun-10-07	Jul-07-07	Jul-25-07	Jun-10-07
Trt-Eval Interval	5 DA-A	13 DA-A	8 DA-B	13 DA-B	13 DA-A	13 DA-B	31 DA-B	13 DA-A

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

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Weed Code			DIGSA	DIGSA
Crop Code			cotton	cotton
Rating Data Type			%	%
Rating Unit			control	control
Rating Date			Jul-07-07	Jul-25-07
Trt-Eval Interval			13 DA-B	31 DA-B
Trt No.	Treatment Name	Rate	Unit	
1	Untreated			0 c
2	V-10204	0.106	LB A/A	99 a
	WeatherMax 4.5 L	22	OZ/A	97 b
3	V-10204	0.213	LB A/A	99 a
	WeatherMax 4.5 L	22	OZ/A	99 a
4	V-10204	0.32	LB A/A	99 a
	WeatherMax 4.5 L	22	OZ/A	99 a
5	Sequence	1.65	LB A/A	99 a
	WeatherMax 4.5 L	22	OZ/A	99 a
6	WeatherMax 4.5 L	22	OZ/A	99 a
	WeatherMax 4.5 L	22	OZ/A	99 a
7	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.106	LB A/A	
	WeatherMax 4.5 L	22	OZ/A	99 a
8	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.213	LB A/A	
	WeatherMax 4.5 L	22	OZ/A	99 a
9	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.32	LB A/A	
	WeatherMax 4.5 L	22	OZ/A	99 a
10	WeatherMax 4.5 L	22	OZ/A	99 a
	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.106	LB A/A	
11	WeatherMax 4.5 L	22	OZ/A	98 b
	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.213	LB A/A	
12	WeatherMax 4.5 L	22	OZ/A	99 a
	WeatherMax 4.5 L	22	OZ/A	98 ab
	Valor	0.063	LB A/A	
13	WeatherMax 4.5 L	22	OZ/A	99 a
	Sequence	1.64	LB A/A	99 a
14	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.106	LB A/A	
	WeatherMax 4.5 L	22	OZ/A	99 a
15	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.213	LB A/A	
	WeatherMax 4.5 L	22	OZ/A	99 a
16	WeatherMax 4.5 L	22	OZ/A	99 a
	V-10204	0.213	LB A/A	
	WeatherMax 4.5 L	22	OZ/A	99 a
LSD (P=.05)				0.7
Standard Deviation				0.5
CV				0.54
Bartlett's X2				0.0
P(Bartlett's X2)				0.381
				0.537

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: _____
% 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	B	C
Application Date:	May-28-07	Jun-24-07	Jun-24-07
Time of Day:	1:00 pm	6:00 pm	6:00 pm
Application Method:	broadcast	broadcast	broadcast
Application Timing:	POT A	POT B	PD
Applic. Placement:	overtop	overtop	overtop
Air Temp., Unit:	84 F	94 F	94 F
% Relative Humidity:	39	48	48
Wind Velocity, Unit:	6 mph	3 mph	3 mph
Dew Presence (Y/N):	N	N	N
Water Hardness:			
Soil Temp., Unit:	85 F	100 F	100 F
Soil Moisture:	moist	moist	moist
% Cloud Cover:	35	95	95

### CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GOSHI POT A	GOSHI POT B	GOSHI PD
Stage Scale:	2 leaf	11 leaf	11 leaf
Height, Unit:	3 in	14 in	14 in

### WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	IPOLA POT A	IPOLA POT B	IPOLA PD
Stage Scale:	1-4"	< 12 inch	< 12 in
Density, Unit:	3 ydsq	16 ydsq	16 ydsq
Weed 2 Code, Stage:	DIGSA POT A	DIGSA POT B	DIGSA PD
Stage Scale:	1-3"	6-12"	6-12"
Density, Unit:	30 ydsq	40 ydsq	40 ydsq

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## APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	backpack	backpack	backpack
<b>Operating Pressure:</b>	24	24	22
<b>Nozzle Type:</b>	flat fan	flat fan	floodjet
<b>Nozzle Size:</b>	11002	11002	D2
<b>Nozzle Spacing, Unit:</b>	18 in	18 in	36 in
<b>Nozzles/Row:</b>	2	2	1
<b>Band Width, Unit:</b>			
<b>Boom Length, Unit:</b>	4.5 ft	4.5 ft	
<b>Boom Height, Unit:</b>	15 in	15 in	15 inch
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph
<b>Incorporation Equip.:</b>			
<b>Hours to Incorp.:</b>			
<b>Incorp. Depth, Unit:</b>			
<b>Carrier:</b>	water	water	water
<b>Spray Volume, Unit:</b>	15 GPA	15 GPA	14.8 GPA
<b>Spray pH:</b>			
<b>Propellant:</b>	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>	Y	Y	Y

Trt No	Treatment Application Comment