

# University of Georgia

**Tropical spiderwort response to V-10204.**

Trial ID: C25-07

Study Dir.: Tim Flanders

Location: Berrien County

Investigator: Stanley Culpepper

Reps: 4

Plots: 6 by 22 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .67908)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product Measure	Plot No. By Rep			
											1	2	3	4
1	None										101	207	303	408
2	V-10204	85		WG	0.053	LB	A/A	PRE	A	0.5048 g/mx	102	214	310	409
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
3	V-10204	85		WG	0.106	LB	A/A	PRE	A	1.01 g/mx	103	206	314	413
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
4	V-10204	85		WG	0.159	LB	A/A	PRE	A	1.514 g/mx	104	211	315	401
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
5	V-10204	85		WG	0.213	LB	A/A	PRE	A	2.029 g/mx	105	204	313	415
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
6	Dual Magnum	7.64		L	0.95	LB	A/A	PRE	A	8.401 ml/mx	106	202	311	403
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
7	Dual Magnum	7.64		L	1.25	LB	A/A	PRE	A	11.05 ml/mx	107	213	305	410
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
8	Cotoran	4		L	1	LB	A/A	PRE	A	16.89 ml/mx	108	203	312	405
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
9	Dual Magnum	7.64		L	0.95	LB	A/A	PRE	A	8.401 ml/mx	109	210	309	411
	Cotoran	4		L	1	LB	A/A	PRE	A	16.89 ml/mx				
	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx				
10	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx	110	215	304	402
	V-10204	85		WG	0.053	LB	A/A	POST	B	0.5048 g/mx				
11	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx	111	209	307	406
	V-10204	85		WG	0.106	LB	A/A	POST	B	1.01 g/mx				
12	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx	112	208	301	407
	V-10204	85		WG	0.159	LB	A/A	POST	B	1.514 g/mx				
13	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx	113	212	302	412
	V-10204	85		WG	0.213	LB	A/A	POST	B	2.029 g/mx				
14	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx	114	201	308	414
	Dual Magnum	7.64		L	0.95	LB	A/A	POST	B	8.401 ml/mx				
15	Roundup WeatherMax	4.5		L	22	OZ/A		POST	B	11.61 ml/mx	115	205	306	404
	Dual Magnum	7.64		L	1.25	LB	A/A	POST	B	11.05 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
12.645	g	V-10204	85	WG	
203.231	ml	Roundup WeatherMax	4.5	L	
59.137	ml	Dual Magnum	7.64	L	
42.225	ml	Cotoran	4	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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## Tropical spiderwort response to V-10204.

Trial ID: C25-07

Study Dir.: Tim Flanders

Location: Berrien County

Investigator: Stanley Culpepper

### Trial Comments

OBJECTIVE: Determine cotton and tropical spiderwort response to V-10204.

#### Cotton Response:

1. At 15 d after planting (irrigated the day of planting), injury (noted as stunting) ranged from 2.5 to 26% with increasing injury as the rate of V-10204 increased. By 35 days after planting, injury by V-10204 at 0.159 and 0.213 was still unacceptable and severe. Injury by 0.106 lb was significant (19%) with minor injury noted with 0.053 lb ai (8%).
2. Injury from Dual Magnum ranged from 11 to 24% and was rate responsive.
3. POST applications of V-10204 caused severe (>19%) injury at 5 DAT with all rates of V-10204 when mixed with glyphosate. Injury from V-10204 mixtures was at least twice that noted with Dual Magnum. POST injury was a measure of necrosis and leaf drop.
4. Visual cotton injury was not noted in mid August.

#### Tropical Spiderwort Response:

1. At 15 d after PRE treatments, only V-10204 at 0.053 provided less than 90% control.
2. By 35 d after PRE treatments, Dual Magnum at 1.25 lb and Dual plus Cotoran were the most effective options. Control was about 10% less with Dual Magnum at 0.95 lb, V-10204 at 0.159 and 0.213 lb/A.
3. By 58 d after PRE treatments, control was similar among PRE treatments except for the combination of Dual plus Cotoran was 20% more effective than any other PRE option.
4. At 23 and 44 d after POST treatments, control was excellent with all V-10204 and Dual Magnum options.
5. At 111 d after POST applications, control by glyphosate plus V-10204 at 0.16 and 0.23 as well as glyphosate plus Dual Magnum at 0.95 and 1.25 lb provided similar and good to excellent control (88-96%).

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## Tropical spiderwort response to V-10204.

Trial ID: C25-07

Study Dir.: Tim Flanders

Location: Berrien County

Investigator: Stanley Culpepper

Weed Code		COMBE	COMBE	COMBE	COMBE	COMBE	INJURY	INJURY	INJURY		
Crop Code		cotton	cotton	cotton	cotton	cotton	cotton	cotton	cotton		
Rating Data Type		%	%	%	%	%	%	%	%		
Rating Unit		control	control	control	control	control	injury	injury	injury		
Rating Date		Jun-16-07	Jul-06-07	Jul-29-07	Aug-19-07	Oct-25-07	Jun-16-07	Jul-06-07	Jul-11-07		
Trt-Eval Interval		15 DA-A	35 DA-A	23 DA-B	44 DA-B	111 DA-B	15 DA-A	35 DA-A	5 DA-B		
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
1	None			0 c	0 e	0 d	0 d	0 i	0 d	0 c	0 e
2	V-10204 Roundup WeatherMax	0.053 22	LB A/A OZ/A	87 b	65 d	44 c	60 c	11 h	3 cd	8 bc	1 e
3	V-10204 Roundup WeatherMax	0.106 22	LB A/A OZ/A	93 ab	73 bc	36 c	55 c	19 gh	18 ab	19 b	0 e
4	V-10204 Roundup WeatherMax	0.159 22	LB A/A OZ/A	95 a	76 bc	40 c	61 c	25 fg	24 a	36 a	0 e
5	V-10204 Roundup WeatherMax	0.213 22	LB A/A OZ/A	94 ab	79 b	44 c	55 c	28 efg	26 a	35 a	0 e
6	Dual Magnum Roundup WeatherMax	0.95 22	LB A/A OZ/A	97 a	79 b	50 c	56 c	36 e	13 bc	18 b	0 e
7	Dual Magnum Roundup WeatherMax	1.25 22	LB A/A OZ/A	94 ab	88 a	50 c	55 c	33 ef	24 a	18 b	0 e
8	Cotoran Roundup WeatherMax	1 22	LB A/A OZ/A	97 a	71 c	51 c	58 c	14 h	12 bc	6 bc	0 e
9	Dual Magnum Cotoran Roundup WeatherMax	0.95 1 22	LB A/A LB A/A OZ/A	96 a	87 a	71 b	72 b	60 d	13 bc	12 bc	0 e
10	Roundup WeatherMax V-10204	22 0.053	OZ/A LB A/A	0 c	0 e	96 a	94 a	73 c	0 d	0 c	20 c
11	Roundup WeatherMax V-10204	22 0.106	OZ/A LB A/A	0 c	0 e	97 a	97 a	84 b	0 d	0 c	28 b
12	Roundup WeatherMax V-10204	22 0.159	OZ/A LB A/A	0 c	0 e	95 a	98 a	92 ab	3 cd	0 c	28 b
13	Roundup WeatherMax V-10204	22 0.213	OZ/A LB A/A	0 c	0 e	97 a	99 a	96 a	0 d	0 c	38 a
14	Roundup WeatherMax Dual Magnum	22 0.95	OZ/A LB A/A	0 c	0 e	98 a	97 a	88 ab	0 d	0 c	9 d
15	Roundup WeatherMax Dual Magnum	22 1.25	OZ/A LB A/A	0 c	0 e	95 a	98 a	90 ab	0 d	0 c	8 d
LSD (P=.05)				6.2	6.0	16.2	8.2	8.7	9.5	14.1	4.2
Standard Deviation				4.3	4.2	11.4	5.8	6.1	6.6	9.9	2.9
CV				8.65	10.2	17.69	8.2	12.23	74.6	98.18	33.61
Bartlett's X2				6.601	10.348	55.41	33.921	22.106	21.888	13.117	10.731
P(Bartlett's X2)				0.472	0.17	0.001*	0.001*	0.054	0.005*	0.069	0.097

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

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Weed Code				INJURY
Crop Code				cotton
Rating Data Type				%
Rating Unit				injury
Rating Date				Aug-19-07
Trt-Eval Interval				44 DA-B
Trt No.	Treatment Name	Rate	Rate Unit	9
1	None			0 a
2	V-10204 Roundup WeatherMax	0.053 22	LB A/A OZ/A	0 a
3	V-10204 Roundup WeatherMax	0.106 22	LB A/A OZ/A	0 a
4	V-10204 Roundup WeatherMax	0.159 22	LB A/A OZ/A	0 a
5	V-10204 Roundup WeatherMax	0.213 22	LB A/A OZ/A	0 a
6	Dual Magnum Roundup WeatherMax	0.95 22	LB A/A OZ/A	0 a
7	Dual Magnum Roundup WeatherMax	1.25 22	LB A/A OZ/A	0 a
8	Cotoran Roundup WeatherMax	1 22	LB A/A OZ/A	0 a
9	Dual Magnum Cotoran Roundup WeatherMax	0.95 1 22	LB A/A LB A/A OZ/A	0 a
10	Roundup WeatherMax V-10204	22 0.053	OZ/A LB A/A	0 a
11	Roundup WeatherMax V-10204	22 0.106	OZ/A LB A/A	0 a
12	Roundup WeatherMax V-10204	22 0.159	OZ/A LB A/A	0 a
13	Roundup WeatherMax V-10204	22 0.213	OZ/A LB A/A	0 a
14	Roundup WeatherMax Dual Magnum	22 0.95	OZ/A LB A/A	0 a
15	Roundup WeatherMax Dual Magnum	22 1.25	OZ/A LB A/A	0 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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## Tropical spiderwort response to V-10204.

Trial ID: C25-07 Study Dir.: Tim Flanders  
Location: Berrien County Investigator: Stanley Culpepper

### GENERAL TRIAL INFORMATION

**Study Director:** Tim Flanders **Title:** Extension  
**Affiliation:** Univ. of Georgia  
**Postal Code:** 31794  
**Investigator:** Stanley Culpepper **Title:** Ext. Weed Science  
**Affiliation:** Univ. of Georgia  
**Postal Code:** 31794

### TRIAL LOCATION

**City:** Berrien County **Trial Status:** completed  
**State/Prov.:** GA **Trial Reliability:** good  
**Postal Code:** \_\_\_\_\_ **Initiation Date:** Jun-01-07  
**Country:** USA **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.	COMBE	Wanderingjew, Bengal	Commelina benghalensis

**Crop 1:** GOSHI COTTON, SHORT STAPLE **Variety:** DP 555 BRR  
**Planting Date:** Jun-01-07 **Planting Method:** seeded  
**Rate:** 2 8 inch **Depth:** 0.5 in **Perennial Age:** \_\_\_\_\_  
**Row Spacing:** 36 inch **Spacing Within Row:** \_\_\_\_\_ **Seed Bed:** bedded  
**Soil Temperature:** 94 F **Soil Moisture:** irrigated **Emergence Date:** Jun-05-07

### SITE AND DESIGN

**Plot Width, Unit:** 6 FT **Plot Length, Unit:** 22 FT **Reps:** 4  
**Site Type:** On farm  
**Tillage Type:** Conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

**Trial Initiation Comments:**

	Previous Crops	Previous Pesticides	Year
1.			

### MAINTENANCE

**Field Prep./Maintenance:**

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

**SOIL DESCRIPTION**

% Sand: \_\_\_\_\_ % OM: 0.      Texture: currently unknown  
 % Silt: \_\_\_\_\_ pH: 0.      Soil Name: \_\_\_\_\_  
 % Clay: \_\_\_\_\_ CEC: \_\_\_\_\_      Fert. Level: \_\_\_\_\_

**ADDITIONAL MEASURED ELEMENTS**

Element	Quantity	Unit

**MOISTURE CONDITIONS**

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: irrigated

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

**APPLICATION DESCRIPTION**

	A	B
Application Date:	Jun-01-07	Jul-06-07
Time of Day:	9 am	9:00 AM
Application Method:	broadcast	broadcast
Application Timing:	PRE	POST
Applic. Placement:	on soil	overtop
Air Temp., Unit:	84 F	88 F
% Relative Humidity:	61	51
Wind Velocity, Unit:	4 mph	3 mph
Dew Presence (Y/N):	n	N
Water Hardness:		
Soil Temp., Unit:	88 F	90 F
Soil Moisture:	fair	moist
% Cloud Cover:	20	50

**CROP STAGE AT EACH APPLICATION**

	A	B
Crop 1 Code, Stage:	GOSHI PRE	GOSHI POST
Stage Scale:	0 leaves	6 leaf
Height, Unit:	0 in	10 inch

**WEED STAGE AT EACH APPLICATION**

	A	B
Weed 1 Code, Stage:	COMBE PRE	COMBE POST
Stage Scale:	none up	4 leaf
Density, Unit:	0 ydsq	3 ydsq

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## APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment