

# University of Georgia

## Tropical spiderwort response to RR Flex programs.

Trial ID: C13-03  
Location: Grady Co Loc 1

Study Dir.: Culpepper, York  
Investigator: Stanley Culpepper

### GENERAL TRIAL INFORMATION

**Study Director:** Culpepper **Title:** ext. weed science  
**Affiliation:** University of Georgia  
**Postal Code:** 31794  
**Investigator:** Stanley Culpepper **Title:** ext. weed science  
**Affiliation:** University of Georgia  
**Postal Code:** 31794

### TRIAL LOCATION

**City:** Cairo (Location 1) **Trial Status:** completed  
**State/Prov.:** Ga **Trial Reliability:** excellent  
**Postal Code:** 31795 **Initiation Date:** Apr-30-03  
**Country:** U.S.A.

**Conducted Under GLP (Y/N):** N **Conducted Under GEP (Y/N):** N

### CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	COMBE	tropical spiderwort	

**Crop 1:** GOSHI cotton **Variety:** DP 555 B/RR  
**Planting Date:** Apr-30-03 **Planting Method:** conventional  
**Rate:** 3 seed/ft **Depth:** 0.5 in  
**Row Spacing:** 36 in **Spacing Within Row:** 4 inch **Seed Bed:** bedded  
**Soil Temperature:** 74 F **Soil Moisture:** fair **Emergence Date:** May-06-03

### SITE AND DESIGN

**Plot Width, Unit:** 12 FT **Plot Length, Unit:** 25 FT **Reps:** 4  
**Site Type:** on farm  
**Tillage Type:** conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

### SOIL DESCRIPTION

**% OM:** 0. **Texture:** .  
**pH:** 0.

**Overall Moisture Conditions:** wet

### APPLICATION DESCRIPTION

	A	B	C	D
<b>Application Date:</b>	Apr-30-03	May-20-03	Jun-05-03	Jun-21-03
<b>Time of Day:</b>	2 pm	9 am	2 pm	12 pm
<b>Application Method:</b>	broadcast	broadcast	broadcast	broadcast
<b>Application Timing:</b>	PRE	POT 1	POT2	SPDIR
<b>Applic. Placement:</b>	on soil	overtop	overtop	directed
<b>Air Temp., Unit:</b>	74 F	80 F	87 F	84 F
<b>% Relative Humidity:</b>	32	40	47	57
<b>Wind Velocity, Unit:</b>	3 mph	2 mph	2 mph	2 mph
<b>Dew Presence (Y/N):</b>	n	n	n	n
<b>Soil Temp., Unit:</b>	70 F	77 F	87 F	86 F
<b>Soil Moisture:</b>	fair	moist	wet	moist
<b>% Cloud Cover:</b>	100	100	100	0

### CROP STAGE AT EACH APPLICATION

	A	B	C	D
<b>Crop 1 Code, Stage:</b>	GOSHI PRE	GOSHI POT1	GOSHI POT2	GOSHI SPDIR
<b>Stage Scale:</b>	.	V1	V5-V6	V11
<b>Height, Unit:</b>	0. .	2 inch	9 inch	24 inch

# University of Georgia

## WEED STAGE AT EACH APPLICATION

	A	B	C	D
<b>Weed 1 Code, Stage:</b>	COMBE PRE	COMBE POT1	COMBE POT	COMBE SPDIR
<b>Stage Scale:</b>	.	<2 inch	3-7 inch	<6 inch
<b>Density, Unit:</b>	. .	100 sqyd	100 sqyd	110 sqyd

## APPLICATION EQUIPMENT

	A	B	C	D
<b>Appl. Equipment:</b>	backpack	backpack	backpack	backpack
<b>Operating Pressure:</b>	22	22	22	18
<b>Nozzle Type:</b>	flat fan	flat fan	flat fan	flat fan
<b>Nozzle Size:</b>	11002	11002	11002	11002
<b>Nozzle Spacing, Unit:</b>	18 inch	18 inch	18 inch	12 inch
<b>Nozzles/Row:</b>	2	2	2	3
<b>Boom Length, Unit:</b>	4.5 feet	4.5 feet	4.5 feet	2 feet
<b>Boom Height, Unit:</b>	15 inch	15 inch	15 inch	12 inch
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph	3 mph
<b>Carrier:</b>	water	water	water	water
<b>Spray Volume, Unit:</b>	14.8 GPA	14.8 GPA	14.8 GPA	14.8 GPA
<b>Propellant:</b>	CO2	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>	Y	Y	Y	Y

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Weed Code			GOSHI	GOSHI	GOSHI	COMBE	COMBE	COMBE	COMBE
Crop Code			injury	injury	injury	control	control	control	control
Rating Data Type			percent	percent	percent	percent	percent	percent	percent
Rating Unit									
Rating Date			May-28-03	Jun-12-03	Jun-26-03	Jun-15-03	Jul-04-03	Jul-15-03	Sep-25-03
Trt-Eval Interval			44 DA-A	44 DA-A	44 DA-A	52 DA-A			
Trt	Treatment	Rate							
No.	Name	Unit	1	2	3	4	5	6	7
1	Prowl	2 pt/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Prowl	2 pt/a	0.0	0.0	0.0	91.8	81.3	80.5	67.5
	Roundup WeatherMax	0.75 lb ai/a							
	Roundup WeatherMax	0.75 lb ai/a							
	Roundup WeatherMax	0.75 lb ai/a							
3	Prowl	2 pt/a	0.0	0.0	0.0	90.3	85.0	80.5	64.8
	Roundup WeatherMax	1.125 lb ai/a							
	Roundup WeatherMax	1.125 lb ai/a							
	Roundup WeatherMax	1.125 lb ai/a							
4	Prowl	2 pt/a	0.0	0.0	0.0	90.8	87.8	81.8	66.0
	Roundup WeatherMax	1.5 lb ai/a							
	Roundup WeatherMax	1.5 lb ai/a							
	Roundup WeatherMax	1.5 lb ai/a							
5	Prowl	2 pt/a	0.0	0.0	0.0	89.5	89.0	81.0	64.8
	Roundup WeatherMax	3 lb ai/a							
	Roundup WeatherMax	3 lb ai/a							
	Roundup WeatherMax	3 lb ai/a							
LSD (P=.05)			0.00	0.00	0.00	1.73	3.80	2.08	9.24
Standard Deviation			0.00	0.00	0.00	1.12	2.47	1.35	6.00
CV			0.0	0.0	0.0	1.55	3.6	2.08	11.4
Bartlett's X2			0.0	0.0	0.0	1.56	7.249	3.32	4.614
P(Bartlett's X2)			.	.	.	0.669	0.064	0.345	0.202

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

# University of Georgia

Weed Code	COMBE		
Crop Code			
Rating Data Type	control		
Rating Unit	percent		
Rating Date	Oct-07-03		
Trt-Eval Interval			
Trt No.	Treatment Name	Rate	Rate Unit
			8
1	Prowl	2	pt/a
			0.0
2	Prowl	2	pt/a
	Roundup WeatherMax	0.75	lb ai/a
	Roundup WeatherMax	0.75	lb ai/a
	Roundup WeatherMax	0.75	lb ai/a
			61.3
3	Prowl	2	pt/a
	Roundup WeatherMax	1.125	lb ai/a
	Roundup WeatherMax	1.125	lb ai/a
	Roundup WeatherMax	1.125	lb ai/a
			57.8
4	Prowl	2	pt/a
	Roundup WeatherMax	1.5	lb ai/a
	Roundup WeatherMax	1.5	lb ai/a
	Roundup WeatherMax	1.5	lb ai/a
			55.0
5	Prowl	2	pt/a
	Roundup WeatherMax	3	lb ai/a
	Roundup WeatherMax	3	lb ai/a
	Roundup WeatherMax	3	lb ai/a
			52.5
LSD (P=.05)			8.57
Standard Deviation			5.56
CV			12.28
Bartlett's X2			5.269
P(Bartlett's X2)			0.153

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

### Trial Comments

OBJECTIVE: Evaluate Roundup Ready Flex programs for the control of tropical spiderwort.

#### CROP TOLERANCE:

1) No visual injury was detected by any herbicide treatment.

#### SPIDERWORT RESPONSE:

- 1) Sequential glyphosate applications provided excellent control of emerged spiderwort.
- 2) Spiderwort emerged the day after each application.
- 3) There was a slight rate effect on controlling emerged plants with greater rates providing better control, however, this is not evident in the data because the continual emergence of spiderwort masked the control of emerged plants at time of applications.
- 4) Poor control was noted with all systems at seasons end.
- 5) Cotton was not picked because it was not Flex technology.
- 6) Flex technology will not be the answer to controlling this pest; HOWEVER, it will be beneficial having the technology and utilizing residual herbicide chemistry in the system.