

# University of Georgia

Cotton and weed response to Anthem Flex.

Trial ID: C45B14

Study Dir.: Stanley Culpepper

Location: Sunbelt Expo

Investigator: Stanley Culpepper

Use 1.5 liters(s) per treatment mixture to spray 14.8 gal/ac  
Plots: 6 by 30 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. 1	By Rep 2	Rep 3	4
1	Non-treated								101	204	303	404
2	Direx	4	L	1	pt/a	PRE		12.67 ml/mx	102	203	301	406
	Reflex	2	L	12	oz/a	PRE		9.501 ml/mx				
	Roundup	4.5	L	32	oz/a	POST		25.34 ml/mx				
	Warrant	3	L	48	oz/a	POST		38.0 ml/mx				
	F9312-3	4	L	1.84	oz/a	7"direct	A	1.457 ml/mx				
	Aim	2	L	1.35	oz/a	7"direct	A	1.069 ml/mx				
	Roundup WMAX	4.5	L	22	oz/a	7"direct	A	17.42 ml/mx				
3	Direx	4	L	1	pt/a	PRE		12.67 ml/mx	103	201	306	405
	Reflex	2	L	12	oz/a	PRE		9.501 ml/mx				
	Roundup	4.5	L	32	oz/a	POST		25.34 ml/mx				
	Warrant	3	L	48	oz/a	POST		38.0 ml/mx				
	F9312-3	4	L	2.76	oz/a	7"direct	A	2.185 ml/mx				
	Aim	2	L	1.25	oz/a	7"direct	A	0.9897 ml/mx				
	Roundup WMAX	4.5	L	22	oz/a	7"direct	A	17.42 ml/mx				
4	Direx	4	L	1	pt/a	PRE		12.67 ml/mx	104	205	304	403
	Reflex	2	L	12	oz/a	PRE		9.501 ml/mx				
	Roundup	4.5	L	32	oz/a	POST		25.34 ml/mx				
	Warrant	3	L	48	oz/a	POST		38.0 ml/mx				
	Warrant	3	L	40	oz/a	7"direct	A	31.67 ml/mx				
	Direx	4	L	6.4	oz/a	7"direct	A	5.067 ml/mx				
	Roundup WMAX	4.5	L	22	oz/a	7"direct	A	17.42 ml/mx				
5	Direx	4	L	1	pt/a	PRE		12.67 ml/mx	105	206	302	401
	Reflex	2	L	12	oz/a	PRE		9.501 ml/mx				
	Roundup	4.5	L	32	oz/a	POST		25.34 ml/mx				
	Warrant	3	L	48	oz/a	POST		38.0 ml/mx				
	F9312-3	4	L	1.84	oz/a	7"direct	A	1.457 ml/mx				
	Aim	2	L	1.35	oz/a	7"direct	A	1.069 ml/mx				
	Roundup WMAX	4.5	L	22	oz/a	7"direct	A	17.42 ml/mx				
6	Direx	4	L	1	pt/a	PRE		12.67 ml/mx	106	202	305	402
	Reflex	2	L	12	oz/a	PRE		9.501 ml/mx				
	Roundup	4.5	L	32	oz/a	POST		25.34 ml/mx				
	Warrant	3	L	48	oz/a	POST		38.0 ml/mx				
	Warrant	3	L	40	oz/a	7"direct	A	31.67 ml/mx				
	Direx	4	L	16	oz/a	7"direct	A	12.67 ml/mx				
	Roundup WMAX	4.5	L	22	oz/a	7"direct	A	17.42 ml/mx				

Sort Order: Treatment

## Trial Comments

**OBJECTIVE:** Cotton response to Anthem Flex plus Aim directed to 7 inch cotton.

**Note:** Study was maintained weed free with PRE and POST treatments.

## VISUAL INJURY FROM LAYBY:

1. Cotton was 13 inches at time of application.
2. Severe damage from F9312-3 + Aim + Roundup mixtures was noted (28 to 34%). Injury was leaf burn/necrosis/drop and stem blackening/necrosis which is typical with applications of Aim applied prior to cotton 20 inches in height. Additionally, cotton stems in this experiment were not barkey.
3. Less than 9% damage was noted with Roundup + Direx + Warrant.

## GENERAL COMMENTS:

1. PRE was applied on May 21 following planting.
2. POST was applied 12 day after planting.

# University of Georgia

Cotton and weed response to Anthem Flex.

Trial ID: C45B14  
Location: Sunbelt Expo

Study Dir.: Stanley Culpepper  
Investigator: Stanley Culpepper

Crop Code	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	INJURY	INJURY	INJURY	INJURY
Rating Unit	%	%	%	%
Rating Date	6/24/2014	7/1/2014	7/10/2014	7/17/2014
Assessed By	SC	SC	SC	SC
Trt-Eval Interval	8 DA-A	15 DA-A	24 DA-A	31 DA-A

Trt No.	Treatment Name	Rate	Unit	1	2	3	4
1	Non-treated			0.0	b 0.0	c 0.0	b 0.0 c
2	Direx	1	pt/a	31.3	a 28.5	b 18.5	a 10.3 b
	Reflex	12	oz/a				
	Roundup	32	oz/a				
	Warrant	48	oz/a				
	F9312-3	1.84	oz/a				
	Aim	1.35	oz/a				
	Roundup WMAX	22	oz/a				
3	Direx	1	pt/a	35.0	a 34.5	a 18.0	a 11.0 ab
	Reflex	12	oz/a				
	Roundup	32	oz/a				
	Warrant	48	oz/a				
	F9312-3	2.76	oz/a				
	Aim	1.25	oz/a				
	Roundup WMAX	22	oz/a				
4	Direx	1	pt/a	5.5	b 0.0	c 0.0	b 0.0 c
	Reflex	12	oz/a				
	Roundup	32	oz/a				
	Warrant	48	oz/a				
	Warrant	40	oz/a				
	Direx	6.4	oz/a				
	Roundup WMAX	22	oz/a				
5	Direx	1	pt/a	32.5	a 29.0	b 19.3	a 14.0 a
	Reflex	12	oz/a				
	Roundup	32	oz/a				
	Warrant	48	oz/a				
	F9312-3	1.84	oz/a				
	Aim	1.35	oz/a				
	Roundup WMAX	22	oz/a				
6	Direx	1	pt/a	8.0	b 3.8	c 0.0	b 0.0 c
	Reflex	12	oz/a				
	Roundup	32	oz/a				
	Warrant	48	oz/a				
	Warrant	40	oz/a				
	Direx	16	oz/a				
	Roundup WMAX	22	oz/a				
LSD (P=.05)				10.32	5.25	4.69	3.35
Standard Deviation				6.85	3.49	3.11	2.23
CV				36.6	21.84	33.5	37.88
Bartlett's X2				6.146	8.505	0.018	7.728
P(Bartlett's X2)				0.189	0.037*	0.894	0.021*
Replicate F				1.887	3.085	1.048	0.569
Replicate Prob(F)				0.1751	0.0593	0.4000	0.6438
Treatment F				21.363	87.523	42.849	34.723
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

# University of Georgia

Cotton and weed response to Anthem Flex.

Trial ID: C45B14  
Location: Sunbelt Expo

Study Dir.: Stanley Culpepper  
Investigator: Stanley Culpepper

## GENERAL TRIAL INFORMATION

<b>Study Director:</b> Stanley Culpepper	<b>Title:</b> Ext. Weed Science
<b>Affiliation:</b> University of Georgia	
<b>Postal Code:</b> 31794	
<b>Investigator:</b> Stanley Culpepper	<b>Title:</b> Ext. Weed Science
<b>Affiliation:</b> University of Georgia	
<b>Postal Code:</b> 31794	

## TRIAL LOCATION

<b>City:</b> Moultrie	<b>Trial Status:</b> COMPLETED
<b>State/Prov.:</b> GA	<b>Trial Reliability:</b> EXCELLENT
<b>Postal Code:</b> 31788	<b>Initiation Date:</b> 5/21/2014
<b>Country:</b> USA	

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

<b>Crop 1:</b> GOSHI COTTON, SHORT STAPLE	<b>Variety:</b> ST 6448 GLB2
<b>Planting Date:</b> 5/21/2014	<b>Planting Method:</b> HILL DROP
<b>Rate:</b> 2 SEED/8.25"	<b>Depth:</b> 0.75 IN
<b>Row Spacing:</b> 36 IN	<b>Spacing Within Row:</b> 8.25 IN
<b>Soil Temperature:</b> 76 F	<b>Seed Bed:</b> rototill flat
<b>Soil Moisture:</b> MOIST	<b>Emergence Date:</b> 5/25/2014

## SITE AND DESIGN

<b>Plot Width, Unit:</b> 6 FT	<b>Plot Length, Unit:</b> 30 FT	<b>Reps:</b> 4
<b>Site Type:</b> Sunbelt Ag Expo		
<b>Tillage Type:</b> CONVENTIONAL	<b>Study Design:</b> RANDOMIZED COMPLETE BLOCK	

## SOIL DESCRIPTION

<b>% Sand:</b> 86	<b>% OM:</b> 1.2	<b>Texture:</b> LOAMY SAND
<b>% Silt:</b> 10	<b>pH:</b> 6.2	
<b>% Clay:</b> 4		

**Overall Moisture Conditions:** MOIST

**Closest Weather Station:** [www.griffin.uga.edu/aemn/](http://www.griffin.uga.edu/aemn/)

**Distance:** 250 **Unit:** yd

## APPLICATION DESCRIPTION

**A**

<b>Application Date:</b>	6/16/2014
<b>Time of Day:</b>	9:30am
<b>Application Method:</b>	BROADCAST
<b>Application Timing:</b>	7" DIRECT
<b>Applic. Placement:</b>	DIRECTED
<b>Air Temp., Unit:</b>	80 F
<b>% Relative Humidity:</b>	78
<b>Wind Velocity, Unit:</b>	2 MPH
<b>Dew Presence (Y/N):</b>	N
<b>Soil Temp., Unit:</b>	86 F
<b>Soil Moisture:</b>	FAIR
<b>% Cloud Cover:</b>	10

## CROP STAGE AT EACH APPLICATION

**A**

<b>Crop 1 Code, Stage:</b>	GOSHI
<b>Stage Scale:</b>	7-8 LEAF
<b>Height, Unit:</b>	13 IN

# University of Georgia

## APPLICATION EQUIPMENT

### A

Appl. Equipment:	BACKPACK
Operating Pressure:	25
Nozzle Type:	FLOODJET
Nozzle Size:	TK3
Nozzle Spacing, Unit:	36 IN
Nozzles/Row:	3
Boom Height, Unit:	15 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GPA
Propellant:	CO2
Tank Mix (Y/N) :	Y