

University of Georgia

RR Flex cotton response to WeatherMax mixed with insecticides or PGRs.

Trial ID: C7-06

Study Dir.: Stanley Culpepper

Location: Jones Farm

Investigator: Stanley Culpepper

Reps: 4

Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 2 liters (min 1.5434)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Grow Unit	Appl Stg	Code	Amt Product to Measure	Plot No. By Rep			
										1	2	3	4
1	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	101	208	304	403
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Orthene	90	SP	1	LB A/A	7 lf	B		17.99 g/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Orthene	90	SP	1	LB A/A	13 lf	C		17.99 g/mx				
2	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	102	206	309	408
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Dimethoate	4	EC	0.5	LB A/A	7 lf	B		16.89 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Dimethoate	4	EC	0.5	LB A/A	13 lf	C		16.89 ml/mx				
3	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	103	207	308	406
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Trimax	4	SC	0.5	LB A/A	7 lf	B		16.89 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Trimax	4	SC	0.5	LB A/A	13 lf	C		16.89 ml/mx				
4	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	104	203	305	407
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Karate	2.08	SC	0.04	LB A/A	7 lf	B		2.598 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Karate	2.08	SC	0.04	LB A/A	13 lf	C		2.598 ml/mx				
5	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	105	201	302	405
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Intrepid	80	WP	0.16	LB A/A	7 lf	B		3.239 g/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Intrepid	80	WP	0.16	LB A/A	13 lf	C		3.239 g/mx				
6	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	106	204	306	409
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Steward	1.25	SC	0.11	LB A/A	7 lf	B		11.89 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Steward	1.25	SC	0.11	LB A/A	13 lf	C		11.89 ml/mx				
7	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	107	209	307	401
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Mepex Ginout	0.35	L	16	OZ/A	7 lf	B		16.89 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Mepex Ginout	0.35	L	16	OZ/A	13 lf	C		16.89 ml/mx				
8	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	108	205	301	402
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	Pix	0.35	L	16	OZ/A	7 lf	B		16.89 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 ml/mx				
	Pix	0.35	L	16	OZ/A	13 lf	C		16.89 ml/mx				
9	WeatherMax	4.5	L	0.75	LB A/A	2 lf	A		22.52 ml/mx	109	202	303	404
	WeatherMax	4.5	L	0.75	LB A/A	7 lf	B		22.52 ml/mx				
	WeatherMax	4.5	L	0.75	LB A/A	13 lf	C		22.52 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
760.055	ml	WeatherMax	4.5	L	

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Reps: 4

Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 2 liters (min 1.5434)

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
44.980	g	Orthene	90	SP	
42.225	ml	Dimethoate	4	EC	
42.225	ml	Trimax	4	SC	
6.496	ml	Karate	2.08	SC	
8.096	g	Intrepid	80	WP	
29.727	ml	Steward	1.25	SC	
42.230	ml	Mepex Ginout	0.35	L	
42.230	ml	Pix	0.35	L	

* '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 Flex cotton response to glyphosate mixtures.

VISUAL COTTON INJURY:

1. No relevant injury was noted with the 2- and 13-leaf applications.
2. At the 7 leaf application, injury was greater when mixing Pix, Karate or Dimethoate with WeatherMax as compared to WeatherMax applied alone. Dimethoate was the most injurious.
3. Late in the season, Pix and Mepex reduced plant growth by 20%.

WEED RESPONSE:

1. All treatments provided similar control of large crabgrass, Palmer amaranth, and yellow nutsedge.
2. By late-season, control of both large crabgrass and Palmer amaranth was unacceptable because of continual weed emergence.

SEED COTTON YIELD:

1. Mixing PGR's or insecticides with WeatherMax did not impact seed cotton yield.

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Weed Code					DIGSA	DIGSA	DIGSA	AMAPA
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	injury	injury	injury	growth redu	control	control	control	control
Rating Unit	%	%	%	%	%	%	%	%
Rating Date	Jun-15-06	Jul-01-06	Aug-03-06	Aug-03-06	Jun-15-06	Jul-15-06	Aug-03-06	Jun-15-06
Assessed By	SC	SC	SC	SC	SC	SC	SC	SC
Trt-Eval Interval	34 DA-A	50 DA-A	83 DA-A	83 DA-A	34 DA-A	64 DA-A	83 DA-A	34 DA-A
ARM Action Codes								
# Subsamples, Dec.								
Trt No.	1	2	3	4	5	6	7	8
Treatment Name								
Rate								
Unit								
9 WeatherMax	0.75 LB A/A	0 c	0 a	0 b	73 ab	99 a	74 a	99 a
WeatherMax	0.75 LB A/A							
WeatherMax	0.75 LB A/A							
LSD (P=.05)	3.4	3.4	0.0	0.0	7.3	5.2	9.5	2.6
Standard Deviation	2.3	2.3	0.0	0.0	5.0	3.6	6.5	1.8
CV	196.18	58.87	0.0	0.0	6.87	3.69	8.48	1.81
Bartlett's X2	8.986	5.955	0.0	0.0	6.437	24.854	8.006	10.843
P(Bartlett's X2)	0.254	0.203	.	.	0.598	0.002*	0.433	0.146

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

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Weed Code	AMAPA	AMAPA	CYPES	CYPES	Seed Yld	Seed Yld				
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI				
Rating Data Type	control	control	control	control	wt	YIELD				
Rating Unit	%	%	%	%	lb/plot	LB/PLOAT				
Rating Date	Jul-06-06	Aug-03-06	Jun-15-06	Aug-03-06	Sep-22-06	Sep-22-06				
Assessed By	AD	SC	SC	SC						
Trt-Eval Interval	55 DA-A	83 DA-A	34 DA-A	83 DA-A	133 DA-A	133 DA-A				
ARM Action Codes						TY1				
# Subsamples, Dec.						1				
Trt No.	Treatment Name	Rate	Unit	9	10	11	12	13	14	
1	WeatherMax	0.75	LB A/A	96 ab	78 a	16 b	84 ab	7 a	2135.9 a	
	WeatherMax	0.75	LB A/A							
	Orthene	1	LB A/A							
	WeatherMax	0.75	LB A/A							
	Orthene	1	LB A/A							
2	WeatherMax	0.75	LB A/A	100 a	81 a	18 ab	87 ab	7 a	2079.3 a	
	WeatherMax	0.75	LB A/A							
	Dimethoate	0.5	LB A/A							
	WeatherMax	0.75	LB A/A							
	Dimethoate	0.5	LB A/A							
3	WeatherMax	0.75	LB A/A	98 ab	76 a	18 ab	86 ab	7 a	2077.8 a	
	WeatherMax	0.75	LB A/A							
	Trimax	0.5	LB A/A							
	WeatherMax	0.75	LB A/A							
	Trimax	0.5	LB A/A							
4	WeatherMax	0.75	LB A/A	89 b	75 a	21 ab	88 a	7 a	2150.4 a	
	WeatherMax	0.75	LB A/A							
	Karate	0.04	LB A/A							
	WeatherMax	0.75	LB A/A							
	Karate	0.04	LB A/A							
5	WeatherMax	0.75	LB A/A	95 ab	81 a	34 a	84 ab	8 a	2201.2 a	
	WeatherMax	0.75	LB A/A							
	Intrepid	0.16	LB A/A							
	WeatherMax	0.75	LB A/A							
	Intrepid	0.16	LB A/A							
6	WeatherMax	0.75	LB A/A	95 ab	73 a	31 ab	83 ab	6 a	1865.8 a	
	WeatherMax	0.75	LB A/A							
	Steward	0.11	LB A/A							
	WeatherMax	0.75	LB A/A							
	Steward	0.11	LB A/A							
7	WeatherMax	0.75	LB A/A	92 ab	71 a	22 ab	83 b	7 a	2027.0 a	
	WeatherMax	0.75	LB A/A							
	Mepex Ginout	16	OZ/A							
	WeatherMax	0.75	LB A/A							
	Mepex Ginout	16	OZ/A							
8	WeatherMax	0.75	LB A/A	92 ab	74 a	26 ab	86 ab	7 a	2050.2 a	
	WeatherMax	0.75	LB A/A							
	Pix	16	OZ/A							
	WeatherMax	0.75	LB A/A							
	Pix	16	OZ/A							
9	WeatherMax	0.75	LB A/A	95 ab	76 a	20 ab	83 b	7 a	2060.4 a	
	WeatherMax	0.75	LB A/A							
	WeatherMax	0.75	LB A/A							
LSD (P=.05)		8.8		10.0		15.5		4.2	1.5	429.70
Standard Deviation		6.0		6.8		10.6		2.8	1.0	294.42
CV		6.35		8.99		46.69		3.36	14.21	14.21
Bartlett's X2		15.99		8.025		25.41		4.335	4.89	4.89
P(Bartlett's X2)		0.043*		0.431		0.001*		0.826	0.769	0.769

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Weed Code	AMAPA	AMAPA	CYPES	CYPES	Seed Yld	Seed Yld
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	control	control	control	control	wt	YIELD
Rating Unit	%	%	%	%	lb/plot	LB/PLOAT
Rating Date	Jul-06-06	Aug-03-06	Jun-15-06	Aug-03-06	Sep-22-06	Sep-22-06
Assessed By	AD	SC	SC	SC		
Trt-Eval Interval	55 DA-A	83 DA-A	34 DA-A	83 DA-A	133 DA-A	133 DA-A
ARM Action Codes						TY1
# Subsamples, Dec.						1

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

Column 14: TY1 = 290.4*[13]

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RR Flex cotton response to WeatherMax mixed with insecticides or PGRs.

Trial ID: C7-06 Study Dir.: Stanley Culpepper
 Location: Jones Farm Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley 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: Tifton **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** good
Postal Code: 31794 **Initiation Date:** Apr-27-06
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.	DIGSA	large crabgrass	
2.	CYPES	yellow nutsedge	
3.	AMAPA	Palmer amaranth	

Crop 1: GOSHI cotton **Variety:** ST 6565 BRR
Planting Date: Apr-27-06 **Planting Method:** seeded
Rate: 3 ft **Depth:** 0.5 in **Perennial Age:** _____
Row Spacing: 36 inch **Spacing Within Row:** 4 inch **Seed Bed:** flat
Soil Temperature: 70 F **Soil Moisture:** dryland **Emergence Date:** May-02-06

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: Jones Farm
Tillage Type: Strip tillage **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

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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: 95	% OM: 5.8	Texture: Sand	
% Silt: 2	pH: 0.67	Soil Name: Tifton sandy loam	
% Clay: 3	CEC: _____	Fert. Level: _____	

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: dryland

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-12-06	Jun-10-06	Jun-26-06
Time of Day:	1:00pm	8:00am	7:00 am
Application Method:	Broadcast	Broadcast	Broadcast
Application Timing:	2 lf	7 lf	13 lf
Applic. Placement:	overtop	overtop	overtop
Air Temp., Unit:	84 F	88 F	78 F
% Relative Humidity:	47	53	86
Wind Velocity, Unit:	5 mph	0 mph	2 mph
Dew Presence (Y/N):	n	y	y
Water Hardness:			
Soil Temp., Unit:	85 F	79 F	84 F
Soil Moisture:	fair	moist	moist
% Cloud Cover:	0	0	100

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GOSHI 2 leaf	GOSHI 7 leaf	GOSHI 13 leaf
Stage Scale:	2 leaf	7-8 leaf	11-12leaf
Height, Unit:	3 inch	10 inch	15 inch

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WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	DIGSA 2 leaf	DIGSA 7 leaf	DIGSA 13 leaf
Stage Scale:	<3 inch	up to 12"	up to 5"
Density, Unit:	12 ydsq	8 ydsq	4 ydsq
Weed 2 Code, Stage:	CYPES 2 leaf	CYPES 7 leaf	CYPES 13 leaf
Stage Scale:	3-5 blade	upto8blad	up to 10"
Density, Unit:	2 ydsq	2 ydsq	2 ydsq
Weed 3 Code, Stage:	AMAPA 2 leaf	AMAPA 7 leaf	AMAPA 13 leaf
Stage Scale:	< 5 inch	up to 15"	up to 5"
Density, Unit:	14 ydsq	4 ydsq	3 ydsq

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	backpack	backpack	backpack
Operating Pressure:	23	23	23
Nozzle Type:	flat fan	flat fan	flat fan
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch	18 inch
Nozzles/Row:	4	4	4
Band Width, Unit:			
Boom Length, Unit:	4.5 feet	4.5 feet	4.5 feet
Boom Height, Unit:	15 inch	15 inch	15 inch
Ground Speed, Unit:	3 mph	3 mph	3 mph
Incorporation Equip.:			
Hours to Incorp.:			
Incorp. Depth, Unit:			
Carrier:	water	water	water
Spray Volume, Unit:	14.8 GPA	14.8 GPA	14.8 GPA
Spray pH:			
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	Y	Y	Y

Trt No	Treatment Application Comment