University of Georgia

Timing of First Application in RR Flex Cotton

Trial ID: C17-05 Study Dir.: Stanley Culpepper
Location: Ponder Farm Investigator: Stanley Culpepper

Reps: 3 Plots: 12 by 25 feet
Spray vol: 15 gal/ac Mix size: 1.5 liters (min 1.1732)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep 1	2	3
1	No PRE								102	204	305
	No Roundup										
2	No PRE								104	201	302
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 0	B	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 3	E	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 7	I	21.88 ml/mx			
3	No PRE								105	202	304
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 1	C	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 3	E	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 7	I	21.88 ml/mx			
4	No PRE								103	205	303
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 2	D	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 4	F	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 6	H	21.88 ml/mx			
5	No PRE								101	203	301
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 3	E	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 7	I	21.88 ml/mx			
6	Prowl	3.3	EC	2.4	pt/a	PRE	A	30.0 ml/mx	110	207	309
	No Roundup										
7	Prowl	3.3	EC	2.4	pt/a	PRE	A	30.0 ml/mx	107	208	310
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 0	B	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 3	E	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 7	I	21.88 ml/mx			
8	Prowl	3.3	EC	2.4	pt/a	PRE	A	30.0 ml/mx	108	209	307
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 1	C	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 3	E	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 7	I	21.88 ml/mx			
9	Prowl	3.3	EC	2.4	pt/a	PRE	A	30.0 ml/mx	106	210	306
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 2	D	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 4	F	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 6	H	21.88 ml/mx			
10	Prowl	3.3	EC	2.4	pt/a	PRE	A	30.0 ml/mx	109	206	308
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 3	E	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 5	G	21.88 ml/mx			
	Roundup Weathermax	4.5	L	28	fl oz/a	POST 7	I	21.88 ml/mx			

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Lot Code
820.314	ml	Roundup Weathermax 4.5 L	
187.480	ml	Prowl 3.3 EC	

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Reps: 3 Plots: 12 by 25 feet
Spray vol: 15 gal/ac Mix size: 1.5 liters (min 1.1732)

Trt No.	Tr> N>	Form Conc	Form Type	Plot No. By Rep

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Lot Code

* 'Per area' calculations based on spray volume= 15 gal/ac, mix size= 1.5 liters (mix size basis).
* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine when the initial glyphosate application should be applied in RR Flex Cotton.

WEED RESPONSE:
Texas Panicum and Palmer Amaranth:
1. Excellent control was noted after glyphosate applications were initiated.

Seed cotton yields:
1. Yields were over 4000 lb/A when glyphosate was initiated at the 0.5 leaf stage following no PRE or when glyphosate was initiated at the 0.5 or 2.5 leaf stage when following Prowl PRE.
2. Yields were significantly reduced in the no PRE system when glyphosate was initiated at the 4.5 leaf stage, although trends for less yield were noted when waiting only to the 2.5 leaf stage.
3. Yields were significantly reduce in the PRE system when glyphosate was initiated at the 4.5 leaf stage.

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Timing of First Application in RR Flex Cotton

Trial ID: C17-05 Study Dir.: Stanley Culpepper
Location: Ponder Farm Investigator: Stanley Culpepper

Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4
	Weed Code			AMAPA	PANTE		
	Crop Code					GOSHI	GOSHI
	Rating Data Type			control	control	seed yld	seed yld
	Rating Unit			percent	percent	lb/plot	lb/A
	Rating Date			Aug-31-05	Aug-31-05	Oct-15-05	Oct-15-05
	ARM Action Codes						TY1
	# Subsamples, Dec.						1
1	No PRE			0	0	0	0.0
	No Roundup						
2	No PRE			100	100	14	4148.8
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
3	No PRE			100	100	13	3792.6
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
4	No PRE			100	100	12	3488.7
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
5	No PRE			100	100	10	2966.0
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
6	Prowl	2.4	pt/a	70	43	3	752.1
	No Roundup						
7	Prowl	2.4	pt/a	100	100	15	4292.1
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
8	Prowl	2.4	pt/a	100	100	15	4237.9
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
9	Prowl	2.4	pt/a	100	100	12	3507.1
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
10	Prowl	2.4	pt/a	100	100	11	3278.6
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
	Roundup Weathermax	28	fl oz/a				
LSD (P=.05)				5.4	4.1	1.7	506.13
Standard Deviation				3.2	2.4	1.0	295.04
CV				3.63	2.86	9.68	9.68

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Weed Code	AMAPA	PANTE		
Crop Code			GOSHI	GOSHI
Rating Data Type	control	control	seed yld	seed yld
Rating Unit	percent	percent	lb/plot	lb/A
Rating Date	Aug-31-05	Aug-31-05	Oct-15-05	Oct-15-05
ARM Action Codes				TY1
# Subsamples, Dec.				1

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

Column 4: TY1 = 290.4*[C3]

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Timing of First Application in RR Flex Cotton

Trial ID: C17-05 Study Dir.: Stanley Culpepper
Location: Ponder Farm Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Alan York **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

Investigator: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

TRIAL LOCATION

City: TyTy **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** _____
Postal Code: 31794 **Initiation Date:** _____
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.	AMAPA	Palmer amaranth	
2.	PANTE	Texas panicum	

Crop 1: GOSHI cotton **Variety:** RR/BG2 Flex Cotton
Planting Date: Apr-28-05 **Planting Method:** hill drop
Rate: 2 8 inch **Depth:** 0.5 in **Perennial Age:** ____ _____
Row Spacing: 36 inch **Spacing Within Row:** ____ _____ **Seed Bed:** bedded
Soil Temperature: 72 F **Soil Moisture:** irrigated **Emergence Date:** May-03-05

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: Research station
Tillage Type: no tillage after plan **Study Design:** SPLIT-PLOT

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: 94 **% OM:** 1.1 **Texture:** sand
% Silt: 2 **pH:** 6.1 **Soil Name:** Tifton sandy loam
% Clay: 4 **CEC:** _____ **Fert. Level:** _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: wet
Closest Weather Station: _____ **Distance:** _____ **Unit:** __

APPLICATION DESCRIPTION

	A	B	C	D	E	F	G	H
Application Date:	Apr-28-05	May-07-05	May-17-05	May-24-05	Jun-02-05	Jun-06-05	Jun-13-05	Jun-17-05
Time of Day:	3 pm	9 am	9 am	12 pm	8 am	5 pm	8 am	11 am
Application Method:	broadcast	broadcast	broadcast	broadcast	broadcast	broadcast	broadcast	broadcast
Application Timing:	PRE	POST 0	POST 1	POST 2	POST 3	POST 4	POST 5	POST 6
Applic. Placement:	on soil	overtop	overtop	overtop	overtop	overtop	overtop	overtop
Air Temp., Unit:	78 F	74 F	78 F	80 F	80 F	87 F	82 F	87 F
% Relative Humidity:	46	62	60	48	76	44	64	66
Wind Velocity, Unit:	3 mph	3 mph	0 mph	2 mph	2 mph	3 mph	3 mph	0 mph
Dew Presence (Y/N):	n	y	n	n	y	n	n	n
Water Hardness:								
Soil Temp., Unit:	72 F	71 F	75 F	79 F	75 F	89 F	80 F	85 F
Soil Moisture:	moist	moist	moist	fair	wet	moist	wet	moist
% Cloud Cover:	0	0	0	0	100	0	40	40

	I
Application Date:	Jun-23-05
Time of Day:	8 am
Application Method:	broadcast
Application Timing:	POST 7
Applic. Placement:	overtop
Air Temp., Unit:	71 F
% Relative Humidity:	64
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	72 F
Soil Moisture:	moist
% Cloud Cover:	0

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CROP STAGE AT EACH APPLICATION

	A	B	C	D	E
Crop 1 Code, Stage:	GOSHI PRE	GOSHI POST 0	GOSHI POST 1	GOSHI POST 2	GOSHI POST 3
Stage Scale:	not up	0.5 leaf	2.5 leaf	4.5 leaf	6.5 leaf
Height, Unit:	0 inch	0.75 inch	2.5 inch	7 inch	10 inch

	F	G	H	I
Crop 1 Code, Stage:	GOSHI POST 4	GOSHI POST 5	GOSHI POST 6	GOSHI POST 7
Stage Scale:	7.5 leaf	10 leaf	11 leaf	13 leaf
Height, Unit:	12 inch	16 inch	19 inch	24 inch

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E
Weed 1 Code, Stage:	AMAPA PRE	AMAPA POST 0	AMAPA POST 1	AMAPA POST 2	AMAPA POST 3
Stage Scale:	not up	<0.75 in	< 3 inch	4-8 inch	6-10 inch
Density, Unit:	. .	7 ydsq	. .	. .	. .
Weed 2 Code, Stage:	PANTE PRE	PANTE POST 0	PANTE POST 1	PANTE POST 2	PANTE POST 3
Stage Scale:	not up	<0.75 in	< 3 inch	4-6 inch	6-10 inch
Density, Unit:	. .	25 ydsq	. .	. .	. .

	F	G	H	I
Weed 1 Code, Stage:	AMAPA POST 4	AMAPA POST 5	AMAPA POST 6	AMAPA POST 7
Stage Scale:	new < 2in	new < 4in	new < 4in	new < 4in
Density, Unit:	. .	. .	. .	. .
Weed 2 Code, Stage:	PANTE POST 4	PANTE POST 5	PANTE POST 6	PANTE POST 7
Stage Scale:	new < 2in	new < 4in	new < 4in	new < 4in
Density, Unit:	. .	. .	. .	. .

APPLICATION EQUIPMENT

	A	B	C	D	E	F
Appl. Equipment:	backpack	backpack	backpack	backpack	backpack	backpack
Operating Pressure:	23	23	23	23	23	23
Nozzle Type:	flat fan	flat fan	flat fan	flat fan	flat fan	flat fan
Nozzle Size:	11002	11002	11002	11002	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch	18 inch	18 inch	18 inch	18 inch
Nozzles/Row:	2	2	2	2	2	2
Band Width, Unit:						
Boom Length, Unit:	4.5 feet	4.5 feet	4.5 feet	4.5 feet	4.5 feet	4.5 feet
Boom Height, Unit:	15 inch	15 inch	15 inch	15 inch	15 inch	15 inch
Ground Speed, Unit:	3 mph	3 mph	3 mph	3 mph	3 mph	3 mph
Incorporation Equip.:						
Hours to Incorp.:						
Incorp. Depth, Unit:						
Carrier:	water	water	water	water	water	water
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA
Spray pH:						
Propellant:	CO2	CO2	CO2	CO2	CO2	CO2
Tank Mix (Y/N):	Y	Y	Y	Y	Y	Y

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	G	H	I
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:	2	2	2
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:	15 GPA	15 GPA	15 GPA
Spray pH:			
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	Y	Y	Y

Trt No	Treatment Application Comment