

University of Georgia

Roundup Ready and Liberty Link cotton response to several defoliant.

Trial ID: C16-05	Study Dir.: Stanley Culpepper
Location: Ponder (5510)	Investigator: Stanley Culpepper

Reps: 3 Plots: 12 by 22 feet
 Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min 1.0186)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Stg	Appl Code	Amt to Measure	Plot No. By Rep		
									1	2	3
1	Non-treated								101	203	305
2	Resource	0.86	EC	6 oz/a	defoliat	A		4.751 ml/mx	102	206	301
	PREP	6	L	1.3 pt/a	defoliat	A		16.47 ml/mx			
	COC		L	1 pt/a	defoliat	A		12.67 ml/mx			
3	Resource	0.86	EC	4 oz/a	defoliat	A		3.167 ml/mx	103	202	306
	Finish		L	1.3 pt/a	defoliat	A		16.47 ml/mx			
	COC		L	1 pt/a	defoliat	A		12.67 ml/mx			
4	Resource	0.86	EC	4 oz/a	defoliat	A		3.167 ml/mx	104	201	304
	PREP	6	L	1.3 pt/a	defoliat	A		16.47 ml/mx			
	COC		L	1 pt/a	defoliat	A		12.67 ml/mx			
5	Aim		2 EC	1 oz/a	defoliat	A		0.7918 ml/mx	105	204	302
	Finish		L	1.3 pt/a	defoliat	A		16.47 ml/mx			
	NIS		L	0.25 % v/v	defoliat	A		3.75 ml/mx			
6	Finish		L	1.3 pt/a	defoliat	A		16.47 ml/mx	106	205	303
	Ginstar		L	6 oz/a	defoliat	A		4.751 ml/mx			

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
13.857	ml	Resource 0.86 EC	
41.170	ml	PREP 6 L	
47.503	ml	COC L	
61.754	ml	Finish L	
0.990	ml	Aim 2 EC	
4.687	ml	NIS L	
5.939	ml	Ginstar L	

* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1.5 liters (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.
 * 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1.5 liters.

Trial Comments

OBJECTIVE: Compare cotton cultivar response to several defoliant.

DEFOLIATION:

1. Conditions were extremely dry at harvest in addition to nematode damage causing erratic cotton heights.
2. Finish plus Ginstar was actually the quickest option. However, by 10 and 20 d after application percent defoliation was similar among several treatments.
3. Resource at 6 oz + Prep was at least 13% more effective than Resource at 4 oz + Prep.
4. Resource treatments were more effective on Roundup Ready cotton as compared to Liberty Link cotton for the most part.

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Location: Ponder (5510)

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Weed Code	RR	LL	RR	LL	RR	LL		
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI		
Rating Data Type	defoliation	defoliation	defoliation	defoliation	defoliation	defoliation		
Rating Unit	percent	percent	percent	percent	percent	percent		
Rating Date	Sep-23-05	Sep-23-05	Sep-28-05	Sep-28-05	Oct-08-05	Oct-08-05		
Trt-Eval Interval	5 DA-A	5 DA-A	10 DA-A	10 DA-A	20 DA-A	20 DA-A		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate		
		Unit	Unit	Unit	Unit	Unit		
			1	2	3	4	5	6
1	Non-treated		0	0	12	10	13	23
2	Resource PREP COC	6 oz/a 1.3 pt/a 1 pt/a	63	28	72	60	75	67
3	Resource Finish COC	4 oz/a 1.3 pt/a 1 pt/a	50	42	58	48	62	58
4	Resource PREP COC	4 oz/a 1.3 pt/a 1 pt/a	47	25	38	47	47	48
5	Aim Finish NIS	1 oz/a 1.3 pt/a 0.25 % v/v	52	43	57	62	60	68
6	Finish Ginstar	1.3 pt/a 6 oz/a	81	83	67	83	77	78
LSD (P=.05)			12.3	16.4	10.2	17.0	19.8	13.6
Standard Deviation			6.8	9.0	5.6	9.4	10.9	7.5
CV			13.91	24.41	11.08	18.12	19.58	13.05

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

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Trial ID: C16-05 Study Dir.: Stanley Culpepper
Location: Ponder (5510) Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **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:** fair
Postal Code: 31794 **Initiation Date:** Sep-18-05
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.	.		

Crop 1: GOSHI RR or LL cultivars **Variety:** DP 444RR or 966LL
Planting Date: Apr-18-05 **Planting Method:** strip tillage
Rate: 2 8 inch **Depth:** 0.5 in **Perennial Age:** ____
Row Spacing: 36 inch **Spacing Within Row:** ____ **Seed Bed:** flat
Soil Temperature: 81 F **Soil Moisture:** moist **Emergence Date:** Apr-27-05

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 22 FT **Reps:** 3
Site Type: Ponder farm research station
Tillage Type: strip tillage **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: 94 % OM: 1.3 Texture: sand
 % Silt: 2 pH: 5.9 Soil Name: Tifton sandy loam
 % Clay: 4 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: dry

Closest Weather Station: _____ Distance: _____ Unit: __

APPLICATION DESCRIPTION

	A
Application Date:	Sep-18-05
Time of Day:	8 am
Application Method:	broadcast
Application Timing:	defoliat
Applic. Placement:	overtop
Air Temp., Unit:	81 F
% Relative Humidity:	64
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	81 F
Soil Moisture:	DRY
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI defoliat
Stage Scale:	58% open
Height, Unit:	36 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	.
Stage Scale:	.
Density, Unit:	.

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	23
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	2
Band Width, Unit:	
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	14.8 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment