

University of Georgia

Winter weed and cotton response to A1719.

Trial ID: C4-05
Location: Ponder 5132

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Reps: 4 Plots: 12 by 21 feet
Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min 1.2964)

Trt No.	Treatment Name	Form		Rate	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
		Conc	Type					Rate	Unit	1	2
1	Roundup WeatherMax	5.5	L	22 oz/a	BD	A	17.42 ml/mx	101	206	303	402
2	Roundup WeatherMax A1719 NIS	5.5	L	22 oz/a	BD	A	17.42 ml/mx	102	207	301	408
			L	32 oz/a	BD	A	25.34 ml/mx				
			L	0.25 % v/v	BD	A	3.75 ml/mx				
3	Gramoxone Max NIS	3	SL	32 oz/a	BD	A	25.34 ml/mx	103	208	306	401
			L	0.25 % v/v	BD	A	3.75 ml/mx				
4	Gramoxone Max A1719	3	SL	32 oz/a	BD	A	25.34 ml/mx	104	201	302	403
			L	32 oz/a	BD	A	25.34 ml/mx				
5	non-treated							105	203	305	406
6	Roundup WeatherMax A1719	5.5	L	22 oz/a	BD	A	17.42 ml/mx	106	205	308	404
			L	16 oz/a	BD	A	12.67 ml/mx				
7	Gramoxone Max A1719 NIS	3	SL	32 oz/a	BD	A	25.34 ml/mx	107	202	304	407
			L	16 oz/a	BD	A	12.67 ml/mx				
			L	0.25 % v/v	BD	A	3.75 ml/mx				
8	Roundup WeatherMax Weedar	5.5	L	22 oz/a	BD	A	17.42 ml/mx	108	204	307	405
			4	L	1 pt/a	BD	A				

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
87.099	ml	Roundup WeatherMax 5.5 L	
95.017	ml	A1719 L	
14.061	ml	NIS L	
95.017	ml	Gramoxone Max 3 SL	
15.834	ml	Weedar 4 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: Evaluate A1719 as a burndown mixture with Roundup or Gramoxone and to evaluate plantback response by cotton.

Primrose Response:

1. Roundup provided poor control.
2. A1719 mixed with WeatherMax did not improve control above that noted by WeatherMax alone for the first three weeks after treatment; however, at 30 days after treatment A1719 mixed with WeatherMax was 20 to 21% more effective than WeatherMax alone. Adding more surfactant to the WeatherMax + A1719 mixture did not improve control.
3. Mixing A1719 with Gramoxone did not improve control compared to Gramoxone alone.
4. Weedar was much more effective than A1719 when mixed with WeatherMax for control of primrose up until 49 days after treatment in which it was only slightly more effective.

Cotton Response:

1. Visual cotton response and plant stands were not impacted by burndown treatments.

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Weed Code	OEOLA	OEOLA	OEOLA	OEOLA	OEOLA	cotton	cotton	cotton			
Crop Code						injury	injury	injury			
Rating Data Type	control	control	control	control	control	percent	percent	percent			
Rating Unit	percent	percent	percent	percent	percent						
Rating Date	Apr-11-05	Apr-18-05	Apr-27-05	May-05-05	May-24-05	May-05-05	May-12-05	May-24-05			
Trt-Eval Interval	6 DA-A	13 DA-A	22 DA-A	30 DA-A	49 DA-A	30 DA-A	37 DA-A	49 DA-A			
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
1	Roundup WeatherMax	22 oz/a		18	31	70	60	75	0	0	0
2	Roundup WeatherMax A1719 NIS	22 oz/a 32 oz/a 0.25 % v/v		26	34	69	80	92	0	0	0
3	Gramoxone Max NIS	32 oz/a 0.25 % v/v		70	69	75	82	87	0	0	0
4	Gramoxone Max A1719	32 oz/a 32 oz/a		70	70	78	78	83	0	0	0
5	non-treated			0	0	0	0	0	0	0	0
6	Roundup WeatherMax A1719	22 oz/a 16 oz/a		28	39	75	81	94	0	0	0
7	Gramoxone Max A1719 NIS	32 oz/a 16 oz/a 0.25 % v/v		71	73	80	87	85	0	0	0
8	Roundup WeatherMax Weedar	22 oz/a 1 pt/a		60	65	94	99	100	0	0	0
LSD (P=.05)				7.5	10.2	11.4	14.6	5.9	0.0	0.0	0.0
Standard Deviation				5.1	6.9	7.8	9.9	4.0	0.0	0.0	0.0
CV				11.95	14.61	11.5	14.0	5.18	0.0	0.0	0.0

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

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Weed Code			cotton	cotton	cotton
Crop Code			stand cts	stand cts	stand cts
Rating Data Type			#/8 feet	#/8 feet	#/8 feet
Rating Unit					
Rating Date			May-02-05	May-06-05	May-09-05
Trt-Eval Interval			27 DA-A	31 DA-A	34 DA-A
Trt No.	Treatment Name	Rate Rate Unit	9	10	11
1	Roundup WeatherMax	22 oz/a	27	29	29
2	Roundup WeatherMax A1719 NIS	22 oz/a 32 oz/a 0.25 % v/v	29	29	34
3	Gramoxone Max NIS	32 oz/a 0.25 % v/v	27	29	33
4	Gramoxone Max A1719	32 oz/a 32 oz/a	28	29	32
5	non-treated		29	33	31
6	Roundup WeatherMax A1719	22 oz/a 16 oz/a	29	30	31
7	Gramoxone Max A1719 NIS	32 oz/a 16 oz/a 0.25 % v/v	28	29	29
8	Roundup WeatherMax Weedar	22 oz/a 1 pt/a	31	29	33
LSD (P=.05)			7.1	9.1	8.1
Standard Deviation			4.8	6.2	5.5
CV			16.89	20.97	17.51

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

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Trial ID: C4-05 Study Dir.: Stanley Culpepper
 Location: Ponder 5132 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:** good
Postal Code: 31794 **Initiation Date:** Apr-05-05
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.	OEOLA	cutleaf eveningprimrose	

Crop 1: GOSHI cotton **Variety:** DP 444 B/RR
Planting Date: Apr-19-05 **Planting Method:** no-till
Rate: 3 per ft **Depth:** 0.5 in **Perennial Age:** ____ ____
Row Spacing: 36 inch **Spacing Within Row:** 0. **Seed Bed:** flat
Soil Temperature: 79 F **Soil Moisture:** moist **Emergence Date:** Apr-28-05

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 21 FT **Reps:** 4
Site Type: research station
Tillage Type: conventional **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: 1.1 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: _____

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A
Application Date:	Apr-05-05
Time of Day:	12 pm
Application Method:	broadcast
Application Timing:	burndown
Applic. Placement:	overtop
Air Temp., Unit:	72 F
% Relative Humidity:	43
Wind Velocity, Unit:	3 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	69 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI burndown
Stage Scale:	prior
Height, Unit:	0 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	OEOLA burndown
Stage Scale:	18"bloom
Density, Unit:	4 ydsq

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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