



# University of Georgia

Cotton response to Prowl 3.3, Prowl H20, and Dual Magnum in mixture with WMax.

Trial ID: C41-06

Study Dir.: Stanley Culpepper

Location: Attapulcus

Investigator: Stanley Culpepper

## Trial Comments

**OBJECTIVE:** Determine cotton response to glyphosate/Prowl H20 mixtures applied topically.

### VISUAL COTTON RESPONSE:

1. Mixing Prowl EC at 72 oz/A with WeatherMax and applying to 4 leaf cotton caused up to 17% leaf chlorosis and malformation. The new cotton growth was not damaged by the treatment.
2. Four and eight leaf cotton were more tolerant to Prowl H20 mixtures than Prowl EC mixtures.
3. Mixing Dual Magnum with glyphosate caused the typical speckling often noted with this mixture. Injury was greater with Dual Magnum at 32 oz/A as compared to 16 oz/A.

### SEED COTTON YIELD:

1. No treatment impacted cotton seed yield. There was a slight trend for less yield from four leaf cotton treated with the Prowl EC system.

### GENERAL COMMENTS:

1. WeatherMax was applied over the trial area when cotton was in the 12 leaf stage of growth to remove late season weeds.

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Weed Code		GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	Seed Yld	Seed Yld	
Crop Code		GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Rating Data Type		injury	injury	injury	injury	injury	wt/plot	YIELD	
Rating Unit		percent	percent	percent	percent	percent	lb	LB/A	
Rating Date		Jun-12-06	Jun-27-06	Jul-06-06	Jul-10-06	Aug-02-06	Sep-05-06	Sep-05-06	
Trt-Eval Interval		6 DA-A	21 DA-A	30 DA-A	34 DA-A	57 DA-A			
ARM Action Codes								TY1	
# Subsamples, Dec.								1	
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
		Unit	Unit	Unit	Unit	Unit	Unit	Unit	
			1	2	3	4	5	6	
			7						
1	Prowl EC Roundup WeatherMax 4 leaf cotton	72 OZ/A 32 OZ/A	16 a	18 a	8 b	7 b	0 b	11 b	3227.8 b
2	Prowl EC Roundup WeatherMax 8 leaf cotton	72 OZ/A 32 OZ/A	0 c	13 abc	17 a	19 a	5 a	13 ab	3643.1 ab
3	Prowl H20 Roundup WeatherMax 4 leaf cotton	32 OZ/A 32 OZ/A	8 b	8 cde	5 bc	0 d	0 b	13 ab	3847.8 ab
4	Prowl H20 Roundup WeatherMax 8 leaf cotton	32 OZ/A 32 OZ/A	0 c	2 fg	0 d	0 d	0 b	13 ab	3804.2 ab
5	Prowl H20 Roundup WeatherMax 4 leaf cotton	64 OZ/A 32 OZ/A	8 b	10 bcd	2 cd	3 c	0 b	13 ab	3776.7 ab
6	Prowl H20 Roundup WeatherMax 8 leaf cotton	64 OZ/A 32 OZ/A	0 c	6 def	0 d	0 d	0 b	13 ab	3889.9 ab
7	Dual Magnum Roundup WeatherMax 4 leaf cotton	16 OZ/A 32 OZ/A	9 b	3 efg	1 cd	0 d	0 b	13 ab	3840.5 ab
8	Dual Magnum Roundup WeatherMax 8 leaf cotton	16 OZ/A 32 OZ/A	1 c	10 bcd	0 d	1 d	0 b	14 a	3972.7 a
9	Dual Magnum Roundup WeatherMax 4 leaf cotton	32 OZ/A 32 OZ/A	15 a	2 fg	0 d	0 d	0 b	13 ab	3830.4 ab
10	Dual Magnum Roundup WeatherMax 8 leaf cotton	32 OZ/A 32 OZ/A	1 c	14 ab	0 d	0 d	0 b	13 ab	3820.2 ab
11	Roundup WeatherMax 4 leaf cotton	32 OZ/A	0 c	0 g	0 d	0 d	0 b	13 ab	3788.3 ab
12	Roundup WeatherMax 8 leaf cotton	32 OZ/A	0 c	0 g	2 cd	0 d	0 b	12 ab	3628.5 ab
LSD (P=.05)			3.3	4.9	3.9	2.8	2.4	2.0	592.27
Standard Deviation			2.3	3.4	2.7	1.9	1.7	1.4	410.18
CV			47.83	48.65	96.22	77.49	400.0	10.92	10.92
Bartlett's X2			30.829	22.73	5.643	6.774	0.0	17.656	17.655
P(Bartlett's X2)			0.001*	0.007*	0.343	0.079	.	0.09	0.09

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

Column 7: TY1 = 290.4\*[6]



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No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

**SOIL DESCRIPTION**

% Sand: 84      % OM: 1.3      Texture: Loamy sand  
 % Silt: 8      pH: 6.0      Soil Name: \_\_\_\_\_  
 % Clay: 8      CEC: \_\_\_\_\_      Fert. Level: \_\_\_\_\_

**ADDITIONAL MEASURED ELEMENTS**

Element	Quantity	Unit

**MOISTURE CONDITIONS**

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: irrigated

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_

**APPLICATION DESCRIPTION**

	A	B
Application Date:	Jun-06-06	Jun-22-06
Time of Day:	2 pm	2 pm
Application Method:	broadcast	broadcast
Application Timing:	4 leaf	8 leaf
Applic. Placement:	overtop	overtop
Air Temp., Unit:	85 F	100 F
% Relative Humidity:	48	39
Wind Velocity, Unit:	4 mph	3 mph
Dew Presence (Y/N):	n	n
Water Hardness:		
Soil Temp., Unit:	92 F	101 F
Soil Moisture:	moist	moist
% Cloud Cover:	0	40

**CROP STAGE AT EACH APPLICATION**

	A	B
Crop 1 Code, Stage:	GOSHI 4 leaf	GOSHI 8 leaf
Stage Scale:	3 leaf	8 leaf
Height, Unit:	3.5 inch	12 inch

**WEED STAGE AT EACH APPLICATION**

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

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## APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment