

University of Georgia

Reps: 3

Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1575)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Grow Unit	Appl Stg	Appl Code	Amt Product to Measure	Plot No. By Rep		
										1	2	3
13	Gramoxone Inteon	2		SL	2.5	PT/A	preplant	A	31.67 ml/mx	113	208	309
	NIS			L	0.25	% V/V	preplant	A	3.75 ml/mx			
	Reflex	2		L	1	PT/A	preplant	A	12.67 ml/mx			
	Sequence	5.25		L	1.64	LB A/A	1-2lf	B	31.66 ml/mx			
	Touchdown Total	4.17		L	0.78	LB A/A	Layby	C	18.96 ml/mx			
	Envoke	75		DF	0.23	OZ/A	Layby	C	0.1746 g/mx			
14	Gramoxone Inteon	2		SL	2.5	PT/A	preplant	A	31.67 ml/mx	114	210	305
	NIS			L	0.25	% V/V	preplant	A	3.75 ml/mx			
	Reflex	2		L	1.5	PT/A	preplant	A	19.0 ml/mx			
	Sequence	5.25		L	1.64	LB A/A	1-2lf	B	31.66 ml/mx			
	Touchdown Total	4.17		L	0.78	LB A/A	Layby	C	18.96 ml/mx			
	Envoke	75		DF	0.23	OZ/A	Layby	C	0.1746 g/mx			
15	Gramoxone Inteon	2		SL	2.5	PT/A	preplant	A	31.67 ml/mx	115	214	306
	NIS			L	0.25	% V/V	preplant	A	3.75 ml/mx			
	Sequence	5.25		L	1.64	LB A/A	1-2lf	B	31.66 ml/mx			
	Suprend	80		WG	1.5	LB A/A	Layby	C	22.77 g/mx			
	COC			L	1	% V/V	Layby	C	15.0 ml/mx			
16	Gramoxone Inteon	2		SL	3	PT/A	preplant	A	38.0 ml/mx	116	215	311
	NIS			L	0.25	% V/V	preplant	A	3.75 ml/mx			
	Sequence	5.25		L	1.64	LB A/A	1-2lf	B	31.66 ml/mx			
	Suprend	80		WG	1.5	LB A/A	Layby	C	22.77 g/mx			
	COC			L	1	% V/V	Layby	C	15.0 ml/mx			
17	Gramoxone Inteon	2		SL	2.5	PT/A	preplant	A	31.67 ml/mx	117	204	314
	NIS			L	0.25	% V/V	preplant	A	3.75 ml/mx			
	Reflex	2		L	1	PT/A	preplant	A	12.67 ml/mx			
	Sequence	5.25		L	1.64	LB A/A	1-2lf	B	31.66 ml/mx			
	Suprend	80		WG	1.5	LB A/A	Layby	C	22.77 g/mx			
	COC			L	1	% V/V	Layby	C	15.0 ml/mx			
18	Gramoxone Inteon	2		SL	2.5	PT/A	preplant	A	31.67 ml/mx	118	201	315
	NIS			L	0.25	% V/V	preplant	A	3.75 ml/mx			
	Reflex	2		L	1.5	PT/A	preplant	A	19.0 ml/mx			
	Sequence	5.25		L	1.64	LB A/A	1-2lf	B	31.66 ml/mx			
	Suprend	80		WG	1.5	LB A/A	Layby	C	22.77 g/mx			
	COC			L	1	% V/V	Layby	C	15.0 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
450.200	ml	Touchdown Total	4.17	L	
665.048	ml	Gramoxone Inteon	2	SL	
74.992	ml	NIS		L	
158.345	ml	Reflex	2	L	
474.853	ml	Sequence	5.25	L	
0.873	g	Envoke	75	DF	
113.855	g	Suprend	80	WG	
74.992	ml	COC		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.

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Glyphosate-resistant Palmer amaranth response to preplant and POST herbicides.

Trial ID: C24-06

Study Dir.: Stanley Culpepper

Location: Macon (Paved rd)

Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Evaluate numerous herbicide systems for the control of glyphosate-resistant Palmer amaranth.

Cotton Response:

1. Systems with Reflex at 1.5 pt/A caused at least 10% injury at 30 DAP.
2. Injury from other treatments was minor.
3. Injury ratings from layby treatments could not be evaluated because pigweed was so large that most of the herbicides never contacted the crop.

Palmer amaranth response:

1. At 30 DAT, preplant Reflex applications provided good control ranging from 78 to 83%. Preplant applications did not provide excellent control because the planting process disturbed the soil in the cotton row allowing pigweed to emerge in that disturbed area.
2. Rainfall did not occur after Sequence applications thus this product added little to the system.
3. Late season control was less than 62% by all programs, Reflex programs were generally more effective.

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Weed Code			AMAPA	AMAPA	AMAPA	AMAPA		
Crop Code		GOSHI	GOSHI	AMAPA	AMAPA	AMAPA		
Rating Data Type		injury	injury	control	control	control		
Rating Unit		%	%	%	%	%		
Rating Date		Jun-01-06	Jun-08-06	Jun-01-06	Jun-08-06	Jun-20-06		
Assessed By		AD	SC	AD	SC	SC		
Trt-Eval Interval		30 DA-A	37 DA-A	30 DA-A	37 DA-A	49 DA-A		
Trt No.	Treatment Name	Rate	1	2	3	4	5	6
		Rate Unit						
1	None		0 b	0 a	0 e	0 b	0 c	0 e
2	Touchdown Total	0.78 LB A/A	0 b	0 a	30 bc	3 b	3 c	0 e
	Touchdown Total	0.78 LB A/A						
	Touchdown Total	0.78 LB A/A						
3	Gramoxone Inteon	2.5 PT/A	0 b	0 a	22 bcd	0 b	3 c	0 e
	NIS	0.25 % V/V						
	Touchdown Total	0.78 LB A/A						
	Touchdown Total	0.78 LB A/A						
4	Gramoxone Inteon	3 PT/A	0 b	0 a	20 bcd	7 b	3 c	0 e
	NIS	0.25 % V/V						
	Touchdown Total	0.78 LB A/A						
	Touchdown Total	0.78 LB A/A						
5	Gramoxone Inteon	2.5 PT/A	0 b	0 a	82 a	81 a	67 ab	62 a
	Reflex	1 PT/A						
	NIS	0.25 % V/V						
	Touchdown Total	0.78 LB A/A						
	Touchdown Total	0.78 LB A/A						
6	Gramoxone Inteon	2.5 PT/A	10 a	0 a	85 a	80 a	70 ab	55 ab
	Reflex	1.5 PT/A						
	NIS	0.25 % V/V						
	Touchdown Total	0.78 LB A/A						
	Touchdown Total	0.78 LB A/A						
7	Gramoxone Inteon	2.5 PT/A	0 b	0 a	15 cd	0 b	3 c	0 e
	NIS	0.25 % V/V						
	Sequence	1.64 LB A/A						
	Touchdown Total	0.78 LB A/A						
8	Gramoxone Inteon	3 PT/A	5 ab	0 a	13 de	0 b	3 c	0 e
	NIS	0.25 % V/V						
	Sequence	1.64 LB A/A						
	Touchdown Total	0.78 LB A/A						
9	Gramoxone Inteon	2.5 PT/A	5 ab	0 a	78 a	73 a	63 b	62 a
	NIS	0.25 % V/V						
	Reflex	1 PT/A						
	Sequence	1.64 LB A/A						
	Touchdown Total	0.78 LB A/A						
10	Gramoxone Inteon	2.5 PT/A	10 a	0 a	83 a	72 a	68 ab	47 bc
	NIS	0.25 % V/V						
	Reflex	1.5 PT/A						
	Sequence	1.64 LB A/A						
	Touchdown Total	0.78 LB A/A						
11	Gramoxone Inteon	2.5 PT/A	0 b	0 a	22 bcd	0 b	3 c	32 d
	NIS	0.25 % V/V						
	Sequence	1.64 LB A/A						
	Touchdown Total	0.78 LB A/A						
	Invoke	0.23 OZ/A						

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Weed Code			AMAPA	AMAPA	AMAPA	AMAPA		
Crop Code	GOSHI	GOSHI						
Rating Data Type	injury	injury	control	control	control	control		
Rating Unit	%	%	%	%	%	%		
Rating Date	Jun-01-06	Jun-08-06	Jun-01-06	Jun-08-06	Jun-20-06	Jul-05-06		
Assessed By	AD	SC	AD	SC	SC	SC		
Trt-Eval Interval	30 DA-A	37 DA-A	30 DA-A	37 DA-A	49 DA-A	58 DA-A		
Trt No.	Treatment Name	Rate	1	2	3	4	5	6
		Unit						
12	Gramoxone Inteon NIS Sequence Touchdown Total Envoke	3 PT/A 0.25 % V/V 1.64 LB A/A 0.78 LB A/A 0.23 OZ/A	0 b	0 a	20 bcd	0 b	3 c	23 d
13	Gramoxone Inteon NIS Reflex Sequence Touchdown Total Envoke	2.5 PT/A 0.25 % V/V 1 PT/A 1.64 LB A/A 0.78 LB A/A 0.23 OZ/A	2 b	0 a	83 a	73 a	75 a	67 a
14	Gramoxone Inteon NIS Reflex Sequence Touchdown Total Envoke	2.5 PT/A 0.25 % V/V 1.5 PT/A 1.64 LB A/A 0.78 LB A/A 0.23 OZ/A	10 a	0 a	78 a	77 a	72 ab	65 a
15	Gramoxone Inteon NIS Sequence Suprend COC	2.5 PT/A 0.25 % V/V 1.64 LB A/A 1.5 LB A/A 1 % V/V	0 b	0 a	25 bcd	0 b	3 c	33 cd
16	Gramoxone Inteon NIS Sequence Suprend COC	3 PT/A 0.25 % V/V 1.64 LB A/A 1.5 LB A/A 1 % V/V	3 b	0 a	35 b	7 b	3 c	33 cd
17	Gramoxone Inteon NIS Reflex Sequence Suprend COC	2.5 PT/A 0.25 % V/V 1 PT/A 1.64 LB A/A 1.5 LB A/A 1 % V/V	3 b	0 a	82 a	75 a	67 ab	60 ab
18	Gramoxone Inteon NIS Reflex Sequence Suprend COC	2.5 PT/A 0.25 % V/V 1.5 PT/A 1.64 LB A/A 1.5 LB A/A 1 % V/V	10 a	0 a	82 a	77 a	68 ab	55 ab
LSD (P=.05)			5.1	0.0	14.2	14.9	10.1	13.1
Standard Deviation			3.1	0.0	8.5	9.0	6.1	7.9
CV			94.68	0.0	17.9	25.86	18.78	23.82
Bartlett's X2			10.036	0.0	17.645	4.814	3.075	15.144
P(Bartlett's X2)			0.123	.	0.223	0.903	1.00	0.176

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

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

SOIL DESCRIPTION

% Sand: 82 % OM: 2 Texture: Loamy sand
 % Silt: 14 pH: 6.3 Soil Name: _____
 % 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: wet at planting but very dry afterwards

Closest Weather Station: _____ Distance: _____ Unit: __

APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-02-06	May-22-06	Jun-21-06
Time of Day:	10:00am	9:00am	10:00 am
Application Method:	broadcast	broadcast	broadcast
Application Timing:	preplant	1-2lf	layby
Applic. Placement:	on soil	overtop	directed
Air Temp., Unit:	74 F	82 F	77 F
% Relative Humidity:	42	64	80
Wind Velocity, Unit:	1 mph	0 mph	2 mph
Dew Presence (Y/N):	n	n	n
Water Hardness:			
Soil Temp., Unit:	74 F	89 F	76 F
Soil Moisture:	great	great	fair
% Cloud Cover:	0	0	0

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GOSHI preplant	GOSHI 1-2 leaf	GOSHI layby
Stage Scale:	not up	1 leaf	9 leaf
Height, Unit:	0 inch	1.5 inch	11 inch

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	AMAPA preplant	AMAPA 1-2 leaf	AMAPA layby
Stage Scale:	not up	0.5 inch	up to 15"
Density, Unit:	0 ydsq	40 ydsq	78 ydsq

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APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	backpack	backpack	backpack
Operating Pressure:	24	24	18
Nozzle Type:	flat fan	flat fan	flat fan
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch	12 inch
Nozzles/Row:			
Band Width, Unit:			
Boom Length, Unit:	4.5 feet	4.5 feet	2 feet
Boom Height, Unit:	15 inch	15 inch	12 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