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Controlling large GR Palmer amaranth with Remedy, Weedar, Clarity and Ignite.

Trial ID: C55-08 Study Dir.: Stanley Culpepper
Location: Macon County Investigator: Stanley Culpepper

Reps: 3 Plots: 6 by 25 feet
Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min .57876)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep 1	2	3
1	Non-treated									101	203	308
2	Durango	4		L	0.75	LB A/A	POST	A	19.0 ml/mx	102	207	306
	Remedy	4		L	0.5	PT/A	POST	A	6.334 ml/mx			
3	Durango	4		L	0.75	LB A/A	POST	A	19.0 ml/mx	103	202	303
	Remedy	4		L	1.0	PT/A	POST	A	12.67 ml/mx			
4	Durango	4		L	0.75	LB A/A	POST	A	19.0 ml/mx	104	201	304
	Remedy	4		L	1.5	PT/A	POST	A	19.0 ml/mx			
5	Ignite	2.34		L	23	OZ/A	POST	A	18.21 ml/mx	105	208	305
6	Ignite	2.34		L	23	OZ/A	POST	A	18.21 ml/mx	106	204	302
	Weedar	3.8		L	1.5	PT/A	POST	A	19.0 ml/mx			
7	Ignite	2.34		L	23	OZ/A	POST	A	18.21 ml/mx	107	205	307
	Clarity	4		L	12	OZ/A	POST	A	9.502 ml/mx			
8	Ignite	2.34		L	23	OZ/A	POST	A	18.21 ml/mx	108	206	301
	Remedy	4		L	1.0	PT/A	POST	A	12.67 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
71.255	ml	Durango	4	L	
63.338	ml	Remedy	4	L	
91.058	ml	Ignite	2.34	L	
23.752	ml	Weedar	3.8	L	
11.877	ml	Clarity	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.

Trial Comments

OBJECTIVE: Determine Palmer amaranth response to glyphosate or glufosinate mixed with Remedy, Weedar, or Clarity.

Note: Study was put out on a mid-summer emerging population of Palmer amaranth.

Palmer Response:
1. Palmer was 16 inches at time of application.
2. A rate response to Remedy when mixed with glyphosate was noted. At 42 DAT, control was 50, 67 and 73% with Remedy at 0.5, 1.0 and 1.5 pt/A.
3. Ignite mixed with Remedy (78%) was more effective than Ignite mixed with Clarity at 12 oz (67%) with less control noted with Ignite mixed with 1.5 pt/A of Weedar (53%).

CONCLUSION:
1. Experiment needs to be applied to spring emerged Palmer 8 to 12 inches in height.

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Trt No.	Treatment Name	Rate	Rate Unit	1	2	3
Weed Code				AMAPA	AMAPA	AMAPA
Rating Data Type				control	control	control
Rating Unit				%	%	%
Rating Date				Aug-11-08	Aug-21-08	Sep-17-08
Trt-Eval Interval				5 DA-A	15 DA-A	42 DA-A
1	Non-treated			0 d	0 e	0 e
2	Durango	0.75	LB A/A	50 c	52 cd	50 c
	Remedy	0.5	PT/A			
3	Durango	0.75	LB A/A	60 b	69 ab	67 b
	Remedy	1.0	PT/A			
4	Durango	0.75	LB A/A	63 ab	74 ab	73 ab
	Remedy	1.5	PT/A			
5	Ignite	23	OZ/A	63 ab	45 d	25 d
6	Ignite	23	OZ/A	70 a	63 bc	53 c
	Weedar	1.5	PT/A			
7	Ignite	23	OZ/A	67 ab	82 a	67 b
	Clarity	12	OZ/A			
8	Ignite	23	OZ/A	63 ab	82 a	78 a
	Remedy	1.0	PT/A			
LSD (P=.05)				8.2	12.3	9.9
Standard Deviation				4.7	7.0	5.7
CV				8.6	12.01	10.97
Bartlett's X2				2.136	10.174	2.507
P(Bartlett's X2)				0.907	0.118	0.868

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

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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: Macon Co. **Trial Status:** complete
State/Prov.: GA **Trial Reliability:** good
Postal Code: 31068 **Initiation Date:** Aug-06-08
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	

Crop 1: _____ Fallow-no crop **Variety:** _____
Planting Date: _____ **Planting Method:** _____
Rate: _____ _____ **Depth:** _____ __ **Perennial Age:** _____ _____
Row Spacing: _____ _____ **Spacing Within Row:** _____ _____ **Seed Bed:** _____
Soil Temperature: _____ _ **Soil Moisture:** _____ **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: On Farm
Tillage Type: Macon County **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: 82 **% OM:** 6.4 **Texture:** loamy sand
% Silt: 14 **pH:** 2 **Soil Name:** _____
% Clay: 4 **CEC:** _____ **Fert. Level:** _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

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

APPLICATION DESCRIPTION

	A
Application Date:	Aug-06-08
Time of Day:	8:00 am
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	78 F
% Relative Humidity:	67
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	Y
Water Hardness:	
Soil Temp., Unit:	
Soil Moisture:	moist
% Cloud Cover:	20

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	
Stage Scale:	
Height, Unit:	

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	AMAPA POST
Stage Scale:	16 inch
Density, Unit:	10 ydsq

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 in
Nozzles/Row:	2
Band Width, Unit:	
Boom Length, Unit:	4.5 ft
Boom Height, Unit:	15 in
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	15 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment