Palmer ama	aranth	resp	onse	to Sta	alwart	, Dua	al Mag, Sta	ple,	or En	voke	mixed	d with RU.
Trial ID: C39-05				Sti	ıdy Di	r.: S	Stanley Cul	pepper	r			
Location: Attapulgus				Inves	stigat	or: S	Stanley Culp	pepper	r			
Reps: 4 P	ots: 12	by 25	feet									
Spray vol: 14.8 gal/ac	Mix	size: 2	2 liters	(min 1.	5434)							
Trt Treatment	Form	Form		Rate	Grow	Appl	Amt Product	Plot N	lo. By	Rep		
No. Name	Conc	Туре	Rate	Unit	Stg	Code	to Measure	1	2	3	4	
1 Non-treated								101	205	307	403	
2 Sequence	5.25	EW	1.67	lb ai/a	2-4 lf	A	42.98 ml/mx	102	204	306	408	
3 Touchdown Total	4.17	SL	0.75	lb ai/a	2-4 lf	А	24.3 ml/mx	103	202	309	404	
Dual Magnum	7.62	L	0.95	lb ai/a	2-4 lf	Α	16.85 ml/mx					
4 Roundup WeatherMax	4.5	SL	0.75	lb ai/a	2-4 lf	А	22.52 ml/mx	104	203	308	407	
Dual Magnum	7.62	L	0.95	lb ai/a	2-4 lf	Α	16.85 ml/mx					
5 Touchdown Total	4.17	SL	0.75	lb ai/a	2-4 lf	Α	24.3 ml/mx	105	209	301	409	
6 Roundup WeatherMax	4.5	SL	0.75	lb ai/a	2-4 lf	А	22.52 ml/mx	106	201	302	401	
Staple	85	SP	0.6	oz/a	2-4 lf	Α	0.6072 g/mx					
7 Roundup WeatherMax	4.5	SL	0.75	lb ai/a	2-4 lf	А	22.52 ml/mx	107	206	310	405	
Staple	85	SP	0.9	oz/a	2-4 lf	Α	0.9108 g/mx					
8 Roundup WeatherMax	4.5	SL	0.75	lb ai/a	2-4 lf	А	22.52 ml/mx	108	210	303	406	
Envoke	75	DF	0.1	oz/a	2-4 lf	Α	0.1012 g/mx					
9 Roundup WeatherMax	4.5	SL	0.75	lb ai/a	2-4 lf	А	22.52 ml/mx	109	208	305	410	
Stalwart	8	L	1.0	lb ai/a	2-4 lf	Α	16.89 ml/mx					
10 Roundup WeatherMax	4.5	SL	0.75	lb ai/a	2-4 lf	А	22.52 ml/mx	110	207	304	402	
Stalwart	8	L	1.3	lb ai/a	2-4 lf	А	21.96 ml/mx					

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
53.727	ml	Sequence 5.25 EW	
60.756	ml	Touchdown Total 4.17 SL	
42.114	ml	Dual Magnum 7.62 L	
168.901	ml	Roundup WeatherMax 4.5 SL	
1.898	g	Staple 85 SP	
0.127	g	Envoke 75 DF	
48.559	ml	Stalwart 8 L	

'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).
 Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine the most effective residual herbicide partner to tank mix with glyphosate for residual Palmer control.

Palmer amaranth response:

1. All herbicide treatments provided complete control of emerged pigweed at 9 DAT.

2. At 22 and 30 days after treatment, control was similar when metolachlor, Staple, or Envoke were applied in mixture with glyphosate.

3. By 42 days after application, S-metolachlor at 0.95 lb ai/A provided greater residual than 1 lb ai/A of metolachlor. Control from metolachlor at 1.3 lb was similar to that of S-metolachlor at 0.95 lb.

4. By 90 days after application, Staple and Envoke were statistically as effective as S-metolachlor and were numerically more effective than S-metolachlor.

Florida pusley response:

1. All herbicide treatments provided complete control of emerged pusley at 9 DAT.

2. By 22 days after treatment, S-metolachlor at 0.95 lb ai/A was more effective than 1 lb ai/A of metolachlor. Control from metolachlor at 1.3 lb was similar to that of S-metolachlor at 0.95 lb.

3. At 22 days after treatment, Staple and Envoke were as effective as S- metolachlor; however, control from plots treated with Staple and Envoke may have been increased because of poor grass control.

4. Grass and pigweed control was so poor in some plots that pusley ratings were discontinued at 22 DAT.

Broadleaf signalgrass response:

1. All herbicide treatments provided complete control of emerged signalgrass at 9 DAT.

2. Staple and Envoke provided little to no control.

3. Metolachlor products provided fair control. By 70 DAT, S-metolachlor at 0.95 lb and 1.3 lb of metolachlor were more effective than 1 lb of metolachlor.

GENERAL COMMENTS:

1. Culpepper rated when a SC is in the crop code while Prostko rated when EP is in the crop code.

	Palmer amaranth response to Stalwart, Dual Mag, Staple, or Envoke mixed with RU.										
Tri	al ID: C39-05			St	udy Dir.	: Stanley	Culpepper	<u>_</u>			
Loc	ation: Attapulgus			Inve	stigator	: Stanley	Culpepper	<u>_</u>			
We	ed Code					AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA
	p Code			GOSHI	GOSHI	SC	SC	SC	SC	SC	SC
	ng Data Type			injury	, ,		control		control		control
	ing Unit			percent					percent		
	ing Date					Jun-03-05					•
	Eval Interval		D (9 DA-A	23 DA-A	9 DA-A	22 DA-A	30 DA-A	42 DA-A	54 DA-A	70 DA-A
	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7	8
1	Non-treated			0	0	0	0	0	0	0	0
2	Sequence	1.67	lb ai/a	4	0	99	90	89	84	81	78
3	Touchdown Total Dual Magnum		lb ai/a lb ai/a	5	0	99	90	91	85	85	80
4	Roundup WeatherMax Dual Magnum		lb ai/a lb ai/a	9	0	99	86	86	84	81	82
5	Touchdown Total	0.75	lb ai/a	18	0	99	68	60	54	41	26
6	Roundup WeatherMax Staple		lb ai/a oz/a	3	0	99	97	88	89	88	83
7	Roundup WeatherMax Staple		lb ai/a oz/a	4	0	99	95	94	89	86	80
8	Roundup WeatherMax Envoke		lb ai/a oz/a	15	0	99	97	96	92	88	85
9	Roundup WeatherMax Stalwart		lb ai/a Ib ai/a	10	0	99	81	76	72	64	65
10	Roundup WeatherMax Stalwart		lb ai/a lb ai/a		0	99	86	85	86	79	79
LSE) (P=.05)			4.1	0.0	0.0	9.2	11.1	10.0	13.1	16.1
	ndard Deviation			2.8	0.0	0.0	6.3	7.7	6.9	9.0	11.1
CV				36.42	0.0	0.0	8.0	10.04	9.4	13.06	16.85

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

_			_			<u> </u>			
We	ed Code		AMAPA	AMAPA	AMAPA	AMAPA	RCHSC	RCHSC	BRAPP
	p Code		SC	EP	EP	EP			
	ng Data Type		control	control	control	control	control		
	ing Unit		percent	•			percent	•	
	ng Date					Aug-05-05			
Trt-	Eval Interval		103 DA-A	23 DA-A	56 DA-A	72 DA-A	9 DA-A	22 DA-A	9 DA-A
	Treatment	Rate							
No.	Name	Rate Unit	9	10	11	12	13	14	15
1	Non-treated		0	0	0	0	0	0	0
2	Sequence	1.67 lb ai/a	72	91	71	71	99	96	99
3	Touchdown Total	0.75 lb ai/a	76	94	78	74	99	95	99
	Dual Magnum	0.95 lb ai/a							
4	Roundup WeatherMax	0.75 lb ai/a	74	93	71	73	99	97	99
	Dual Magnum	0.95 lb ai/a							
5	Touchdown Total	0.75 lb ai/a	21	83	31	18	99	72	99
6	Roundup WeatherMax	0.75 lb ai/a	80	93	74	74	99	97	99
	Staple	0.6 oz/a							
7	Roundup WeatherMax	0.75 lb ai/a	80	96	80	78	99	97	99
	Staple	0.9 oz/a							
8	Roundup WeatherMax	0.75 lb ai/a	85	96	80	80	99	94	99
	Envoke	0.1 oz/a							
9	Roundup WeatherMax	0.75 lb ai/a	51	92	59	49	99	86	99
	Stalwart	1.0 lb ai/a							
10	Roundup WeatherMax	0.75 lb ai/a	75	88	74	69	99	94	99
	Stalwart	1.3 lb ai/a							
LSE	0 (P=.05)		12.9	7.3	15.8	16.3	0.0	7.7	0.0
Sta	ndard Deviation		8.9	5.1	10.9	11.3	0.0	5.3	0.0
CV			14.48	6.14	17.59	19.29	0.0	6.39	0.0

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

							<u> </u>	
	ed Code			BRAPP	BRAPP	BRAPP	BRAPP	BRAPP
	o Code							
	ng Data Type			control	control	control	control	control
	ng Unit			percent		percent	•	percent
	ng Date			Jun-16-05				Aug-03-05
	Eval Interval			22 DA-A	30 DA-A	42 DA-A	54 DA-A	70 DA-A
	Treatment	_	Rate		. –			
No.	Name	Rate	Unit	16	17	18	19	20
1	Non-treated			0	0	0	0	0
2	Sequence	1.67	lb ai/a	89	84	74	78	70
3	Touchdown Total	0.75	lb ai/a	96	92	78	89	76
	Dual Magnum	0.95	lb ai/a					
4	Roundup WeatherMax	0.75	lb ai/a	94	86	77	81	79
	Dual Magnum	0.95	lb ai/a					
5	Touchdown Total	0.75	lb ai/a	70	59	45	43	38
6	Roundup WeatherMax	0.75	lb ai/a	83	66	48	58	53
	Staple	0.6	oz/a					
7	Roundup WeatherMax	0.75	lb ai/a	84	67	50	50	53
	Staple	0.9	oz/a					
8	Roundup WeatherMax	0.75	lb ai/a	82	68	49	37	50
	Envoke	0.1	oz/a					
9	Roundup WeatherMax	0.75	lb ai/a	91	85	72	74	59
	Stalwart		lb ai/a					
10	Roundup WeatherMax	0.75	lb ai/a	88	91	75	80	70
	Stalwart	1.3	lb ai/a					
LSD	(P=.05)			8.0	9.7	6.5	16.8	10.5
Star	ndard Deviation			5.5	6.7	4.5	11.6	7.3
CV				7.15	9.54	7.96	19.73	13.27

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

Mar-03-06 (C39-05)

University of Georgia

Palm	er amaranth response	to Stalwart, Dual Mag, St	taple, or E	nvoke mixed with H	RU.
Trial ID: C39-0	5	Study Dir.: Stanley Cu	lpepper		
Location: Attap		Investigator: Stanley Cu	lpepper		
_	GENERAL TE	RIAL INFORMATION			
Study Director:	Stanley Culpepper		Ext. Weed S	Science	
	Univ. of Georgia				
Postal Code:					
Investigator:	Stanley Culpepper	Title:	Ext. Weed S	Science	
Affiliation:	Univ. of Georgia				
Postal Code:	31794				
	тот 7	AL LOCATION			
City: At		Trial Status:	c	completed	
State/Prov.: GA		Trial Reliabili		-	
Postal Code:		Initiation Date			
Country: US		Planned Complet		-	
		N-Latitude of LL			
		Angle y-axis to			
Directions:					
	COODED	ATOR/LANDOWNER			
Cooperator:	COOPERF		:		
- -					
al					
Postal Code:					
		Conducted Under GEP (
Guidelines:	Guideline I	Description:			
Objective: Conclusions:					
CONCIUSIONS:					

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	AMAPA	Palmer amaranth	
2.	RCHSC	Florida pusley	
3.	BRAPP	broadleaf signalgrass	

Crop 1: GOSHI cotton Planting Date: May-11-05	Variety: DP 555 B/RR Planting Method: conventional
Rate: 3 per ft Depth: (0.5 in Perennial Age:
Row Spacing: 36 inch Spacing Wi	thin Row: 4 inch Seed Bed: flat
Soil Temperature: 85 F Soil Mois	sture: irrigated Emergence Date: May-16-05
SITE	AND DESIGN
Plot Width, Unit: 12 FT Plot	Length, Unit: 25 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:

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

% Sand:	84	% OM:	1.3
% Silt:	8	pH:	5.9
% Clay:	8	CEC:	

SOIL DESCRIPTION Texture: loamy sand Soil Name:

Fert. Level:

	ADDITIONAL M	IEASURED	ELEMEN	TS
Element		Quant	ity	Unit

	MOISTURE CONDITIONS							
	Date	Time	Amount	Unit	Туре	Interval	Unit	
1.								

Overall Moisture Conditions: irrigated Closest Weather Station: _____ Distance: ____ Unit: ___

APPLICATION DESCRIPTION

	A
Application Date:	May-25-05
Time of Day:	2 pm
Application Method:	broadcast
Application Timing:	2-4 lf
Applic. Placement:	overtop
Air Temp., Unit:	77 F
<pre>% Relative Humidity:</pre>	46
Wind Velocity, Unit:	1 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	84 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI 2-4 lf
Stage Scale:	4 leaf
Height, Unit:	5 inch

WEED STAGE AT EACH APPLICATION

А
AMAPA 2-4 lf
< 3 inch
33 ydsq
RCHSC 2-4 lf
< 1 inch
10 ydsq
BRAPP 2-4 lf
< 3 inch
17 ydsq

APPLICATION EQUIPMENT

	11111101
	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