

University of Georgia

PALMER AMARANTH CONTROL WITH POST APPLIED TOUGH (NON-CROP)									
Trial ID: PE-60-16		Study Dir.:							
Location: PONDER FARM		Investigator: Eric P. Prostko							

Reps: 4 Plots: 6 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 1.5 liters (.78211 liters calculated mix size)

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Rep 1	2	3	4
1	NTC							101	207	306	401
2	TOUGH NIS	5 EC		6.0 oz/a 0.25 % v/v	POST A	POST A	4.687 ml/mx 3.75 ml/mx	102	203	301	406
3	TOUGH NIS	5 EC		9.0 oz/a 0.25 % v/v	POST A	POST A	7.03 ml/mx 3.75 ml/mx	103	204	305	402
4	TOUGH NIS	5 EC		12.0 oz/a 0.25 % v/v	POST A	POST A	9.374 ml/mx 3.75 ml/mx	104	206	302	404
5	TOUGH NIS	5 EC		18.0 oz/a 0.25 % v/v	POST A	POST A	14.06 ml/mx 3.75 ml/mx	105	201	303	407
6	TOUGH NIS	5 EC		24.0 oz/a 0.25 % v/v	POST A	POST A	18.75 ml/mx 3.75 ml/mx	106	205	304	405
7	STORM COC	4 SL		24.0 oz/a 1.0 % v/v	POST A	POST A	18.75 ml/mx 15.0 ml/mx	107	202	307	403

Sort Order: Treatment

Trial Comments

NIS = ADEPT

COC = RELIABLE

STORM = ACIFLUORFEN (1.33 LB/GAL) + BENTAZON (2.67 LB/GAL)

PALMER AMARANTH HEIGHT (IN) AT APPLICATION BASED UPON 20 PLANTS:

LOW = 2"

HIGH = 7"

AVG = 4.6"

SUMMARY:

1) TOUGH DID NOT PROVIDE ACCEPTABLE CONTROL OF PALMER AMARANTH AT ANY RATING DATE. PALMER AMARANTH CONTROL WITH TOUGH WAS INFERIOR TO STORM.

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POST APPLIED TOUGH (NON-CROP)
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Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: _____ Title: _____
Affiliation: _____ Postal Code: _____

Investigator: Eric P. Prostko Title: _____
Affiliation: _____ Postal Code: _____

Trial Status: _____ Initiation Date: _____ Country: _____
City: _____ State/Prov.: _____ Postal Code: _____
Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N

Objective: _____

Conclusions: _____

CROP AND PEST DESCRIPTION

Weed 1. AMAPA PALMER AMARANTH 2. _____

Crop 1: _____ Variety: _____ Planting Date: _____
Planting Method: _____ Rate: _____ Depth: _____
Perennial Age: _____ Row Spacing: _____ Seed Bed: _____
Soil Temperature: _____ Soil Moisture: _____ Emergence Date: _____

Plot Width, Unit: 6 FT Plot Length, Unit: 25 FT Reps: 4
Site Type: _____
Tillage Type: CONVENTIONAL Study Design: RACOB
Trial Initiation Comments: _____

Previous: Crops Pesticides Year
1. _____

MAINTENANCE

Field Prep./Maintenance: _____

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

SOIL DESCRIPTION

Texture: SAND % OM: 0.77 % Sand: 92 % Silt: 6 % Clay: 2
pH: 6.0 CEC: 2.6 Soil Name: TIFTON Fertility Level: GOOD

MOISTURE CONDITIONS

On: Date	Time	Amount	Unit	Type	Interval	Unit
1. May-17-16		1.54	IN	RAINFALL		
2. May-19-16		0.33	IN	RAINFALL		
3. May-26-16		0.5	IN	SPRINKLER - LATERAL MOVE		
4. Jun-1-16		0.35	IN	SPRINKLER - LATERAL MOVE		
5. Jun-2-16		0.35	IN	SPRINKLER - LATERAL MOVE		

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

APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	May-18-16					
Time of Day:	7:30 AM					
Application Method:	BROADCAST					
Application Timing:	POST					
Applic. Placement:	FOLIAGE					
Air Temp., Unit:	68 F					
% Relative Humidity:	95					
Wind Velocity, Unit:	0 MPH					
Dew Presence (Y/N):	Y					
Water Hardness:	--					
Soil Temp., Unit:	72 F					
Soil Moisture:	WET					
% Cloud Cover:	95					

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Crop 1 Stage:						
Stage Scale:						
Height, Unit:						

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WEED STAGE AT EACH APPLICATION		A	B	C	D	E	F
Weed 1	Stage: AMAPA 2-7" TALL						
	Stage Scale: 4.6" AVG						
	Density, Unit:						

		APPLICATION EQUIPMENT					
		A	B	C	D	E	F
Appl. Equipment:	BACKPACK						
Operating Pressure:	38						
Nozzle Type:	AIXR						
Nozzle Size:	11002						
Nozzle Spacing, Unit:	20	IN					
Nozzles/Row:							
Band Width, Unit:							
Boom Length, Unit:	60	IN					
Boom Height, Unit:	20	IN					
Ground Speed, Unit:	3.5	MPH					
Incorporation Equip.:							
Hours to Incorp.:							
Incorp. Depth, Unit:							
Carrier:	WATER						
Spray Volume, Unit:	15	GPA					
Spray pH:							
Propellant:	CO2						
Tank Mix (Y/N):							

Trt No	Treatment Application Comment

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Location: PONDER FARM		Investigator: Eric P. Prostko							
Weed Code				AMAPA		AMAPA		AMAPA	
Crop Code				-----		-----		-----	
Rating Data Type				CONTROL		CONTROL		CONTROL	
Rating Unit				PERCENT		PERCENT		PERCENT	
Rating Date				May-24-16		May-31-16		Jun-16-16	
Trt-Eval Interval				6 DA-A		13 DA-A		29 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	1	2	3
1	NTC						0.0 d	0.0 c	0.0 b
2	TOUGH NIS	5 EC		6.0 oz/a POST A 0.25 % v/v POST A			15.0 c	0.0 c	0.0 b
3	TOUGH NIS	5 EC		9.0 oz/a POST A 0.25 % v/v POST A			16.3 c	3.8 c	0.0 b
4	TOUGH NIS	5 EC		12.0 oz/a POST A 0.25 % v/v POST A			18.8 c	7.5 c	0.0 b
5	TOUGH NIS	5 EC		18.0 oz/a POST A 0.25 % v/v POST A			26.3 b	7.5 c	0.0 b
6	TOUGH NIS	5 EC		24.0 oz/a POST A 0.25 % v/v POST A			30.0 b	22.5 b	0.0 b
7	STORM COC	4 SL		24.0 oz/a POST A 1.0 % v/v POST A			92.5 a	73.8 a	50.0 a
LSD P=.10							4.37	9.70	13.51
Standard Deviation							3.56	7.91	11.02
CV							12.55	48.16	154.27
Grand Mean							28.39	16.43	7.14
Bartlett's X2							2.335	4.267	0.0
P(Bartlett's X2)							0.801	0.371	.
Replicate F							1.383	0.456	1.000
Replicate Prob(F)							0.2801	0.7160	0.4155
Treatment F							280.500	44.544	11.765
Treatment Prob(F)							0.0001	0.0001	0.0001
Weed Code									
AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.									

Means followed by same letter or symbol do not significantly differ (P=.10, Duncan's New MRT)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code							AMAPA	AMAPA	AMAPA
Crop Code							-----	-----	-----
Rating Data Type							CONTROL	CONTROL	CONTROL
Rating Unit							PERCENT	PERCENT	PERCENT
Rating Date							May-24-16	May-31-16	Jun-16-16
Trt-Eval Interval							6 DA-A	13 DA-A	29 DA-A
Trt	Treatment	Form	Form	Rate	Grow	Appl			
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	
1	NTC						101	0.0	0.0
							207	0.0	0.0
							306	0.0	0.0
							401	0.0	0.0
							Mean =	0.0	0.0
2	TOUGH NIS	5 EC		6.0 oz/a	POST A		102	20.0	0.0
				0.25 % v/v	POST A		203	15.0	0.0
							301	15.0	0.0
							406	10.0	0.0
							Mean =	15.0	0.0
3	TOUGH NIS	5 EC		9.0 oz/a	POST A		103	20.0	0.0
				0.25 % v/v	POST A		204	15.0	0.0
							305	15.0	10.0
							402	15.0	5.0
							Mean =	16.3	3.8
4	TOUGH NIS	5 EC		12.0 oz/a	POST A		104	20.0	0.0
				0.25 % v/v	POST A		206	20.0	20.0
							302	20.0	0.0
							404	15.0	10.0
							Mean =	18.8	7.5
5	TOUGH NIS	5 EC		18.0 oz/a	POST A		105	30.0	10.0
				0.25 % v/v	POST A		201	30.0	0.0
							303	20.0	10.0
							407	25.0	10.0
							Mean =	26.3	7.5
6	TOUGH NIS	5 EC		24.0 oz/a	POST A		106	35.0	25.0
				0.25 % v/v	POST A		205	30.0	30.0
							304	30.0	25.0
							405	25.0	10.0
							Mean =	30.0	22.5
7	STORM COC	4 SL		24.0 oz/a	POST A		107	85.0	60.0
				1.0 % v/v	POST A		202	95.0	65.0
							307	95.0	80.0
							403	95.0	90.0
							Mean =	92.5	73.8

Weed Code
AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.