

University of Georgia

FLUMIOXAZIN FORMULATION COMPARISON

BARE-GROUND/NON-CROP

Trial ID: PE-23-22 Study Dir.: JUSTIN HAND/ANDREW GRIMES

Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 4

Plots: 6 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Diluent	Rep 1	Rep 2	Rep 3	Rep 4
1	NTC								-	101	202	306	405
2	VALOR EZ2	4	SC	3.0 oz/a		PRE	A	2.344 mL/mx	1497.7 mL	102	206	301	404
3	PANTHER	4	SC	3.0 oz/a		PRE	A	2.344 mL/mx	1497.7 mL	103	201	304	403
4	RED EAGLE FLUMIOXAZIN	51	WDG	3.0 oz/a		PRE	A	2.247 g/mx	1497.8 mL	104	203	305	406
5	VALOR SX	51	WG	3.0 oz/a		PRE	A	2.247 g/mx	1497.8 mL	105	204	302	401
6	ZALTUS	51	WG	3.0 oz/a		PRE	A	2.247 g/mx	1497.8 mL	106	205	303	402

Sort Order: Treatment

Trial Comments

SELECT MAX 0.97EC @ 16 OZ/A + NIS @ 0.25% V/V - 08/15/22 (FOR VOLUNTEER SORGHUM CONTROL)

SUMMARY:

1) THERE WERE NO SIGNIFICANT DIFFERENCES IN PALMER AMARANTH CONTROL BETWEEN ANY FORMULATION OF FLUMIOXAZIN AT ANY RATING DATE.

2) CONTROL OF PALMER AMARANTH STARTED TO DECLINE AFTER ~29 DAT.

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Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: JUSTIN HAND/ANDREW GRIMES

Title: _____

Affiliation: _____

Postal Code: _____

Investigator: Eric P. Prostko

Title: _____

Affiliation: _____

Postal Code: _____

TRIAL LOCATION

City: _____

Trial Status: E

State/Prov.: _____

Trial Reliability: _____

Postal Code: _____

Initiation Date: _____

Country: _____

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	PA	LMER AMARANTH

Crop 1: _____

Variety: _____

Planting Date: _____ Planting Method: _____

Rate: _____ Depth: _____ Perennial Age: _____

Row Spacing: _____ Spacing Within Row: _____ Seed Bed: _____

Soil Temperature: _____ Soil Moisture: _____ Emergence Date: _____

Plot Width, Unit: 6 FT SITE AND DESIGN
Plot Length, Unit: 25 FT Reps: 4

Site Type: _____

Tillage Type: CONVENTIONAL Study Design: RACOB

Trial Initiation Comments: _____

	Previous Crops	Previous Pesticides	Year
1.	SORGHUM		2022

MAINTENANCE

Field Prep./Maintenance:

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

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SOIL DESCRIPTION

% Sand: 94 % OM: 0.78 Texture: SAND
% Silt: 4 pH: 6.0 Soil Name: TIFTON
% Clay: 2 CEC: 3.3 Fert. Level: GOOD

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.	Aug-9-22		0.5	IN	SPRINKLER - LATERAL MOVE		
2.	Aug-9-22		0.27	IN	RAINFALL		
3.	Aug-10-22		0.04	IN	RAINFALL		
4.	Aug-11-22		0.07	IN	RAINFALL		
5.	Aug-12-22		0.01	IN	RAINFALL		
6.	Aug-13-22		0.01	IN	RAINFALL		
7.	Aug-17-22		0.03	IN	RAINFALL		
8.	Aug-18-22		0.36	IN	RAINFALL		
9.	Aug-19-22		0.01	IN	RAINFALL		
10.							

Overall Moisture Conditions:

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A
Application Date:	Aug-9-22
Time of Day:	7:00 AM
Application Method:	BROADCAST
Application Timing:	PRE
Applic. Placement:	SOIL
Air Temp., Unit:	70 F
% Relative Humidity:	98
Wind Velocity, Unit:	0 MPH
Dew Presence (Y/N):	N
Water Hardness:	--
Soil Temp., Unit:	75 F
Soil Moisture:	WET
% Cloud Cover:	5

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,
Stage Scale:	
Density, Unit:	

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FLUMIOXAZIN FORMULATION COMPARISON**BARE-GROUND/NON-CROP**

Trial ID: PE-23-22 Study Dir.: JUSTIN HAND/ANDREW GRIMES
Location: PONDER FARM Investigator: Eric P. Prostko

APPLICATION EQUIPMENT

	A
Appl. Equipment:	BACKPACK
Operating Pressure:	35
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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FLUMIOXAZIN FORMULATION COMPARISON									
BARE-GROUND/NON-CROP									
Trial ID: PE-23-22		Study Dir.: JUSTIN HAND/ANDREW GRIMES							
Location: PONDER FARM		Investigator: Eric P. Prostko							
Weed Code		AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	
Crop Code		-----	-----	-----	-----	-----	-----	-----	
Part Rated									
Rating Data Type		CONTROL	CONTROL	CONTROL	CONTROL	Control	Control	Control	
Rating Unit		%	%	%	%	%	%	%	
Rating Date		Aug-15-22	Aug-22-22	Aug-29-22	Sep-7-22	Sep-15-22	Sep-22-22	Sep-22-22	
Trt-Eval Interval		6 DA-A	13 DA-A	20 DA-A	29 DA-A	37 DA-A	44 DA-A	44 DA-A	
Trt Treatment	Form Form Grow Appl	1	2	3	4	5	6		
No. Name	Conc Type Stg Code								
1	NTC	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b	0.0 b		
2	VALOR EZ2 4 SC PRE A	100.0 a	100.0 a	99.8 a	93.8 a	85.0 a	66.3 a		
3	PANTHER 4 SC PRE A	100.0 a	100.0 a	99.8 a	95.0 a	82.5 a	66.3 a		
4	RED EAGLE FLUMIOXAZIN 51 WDG PRE A	100.0 a	100.0 a	99.8 a	96.3 a	88.5 a	71.3 a		
5	VALOR SX 51 WG PRE A	100.0 a	100.0 a	100.0 a	98.3 a	89.5 a	73.8 a		
6	ZALTUS 51 WG PRE A	100.0 a	100.0 a	100.0 a	97.0 a	86.3 a	75.0 a		
LSD P=.10		.	.	0.47	4.89	13.70	11.18		
Standard Deviation		0.00	0.00	0.38	3.95	11.06	9.02		
CV		0.0	0.0	0.45	4.93	15.36	15.36		
Grand Mean		83.33	83.33	83.21	80.04	71.96	58.75		
Bartlett's X2^		.	.	17.288	5.019	6.175	7.856		
P(Bartlett's X2)		.	.	0.004*	0.414	0.29	0.164		

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Could not calculate LSD (% mean diff) for columns 1,2 because error mean square = 0.

^Calculated from residual.

FLUMIOXAZIN FORMULATION COMPARISON						
BARE-GROUND/NON-CROP						
Trial ID: PE-23-22		Study Dir.: JUSTIN HAND/ANDREW GRIMES				
Location: PONDER FARM		Investigator: Eric P. Prostko				
Randomized Complete Block (RCB) AOV For AMAPA ----- CONTROL % Aug-15-22 6 DA-A (Data Column 1)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	33333.333333				
Replicate	3	0.000000	0.000000	0.000	1.0000	
Treatment	5	33333.333333	6666.666667	0.000	1.0000	
Error	15	0.000000	0.000000			
Randomized Complete Block (RCB) AOV For AMAPA ----- CONTROL % Aug-22-22 13 DA-A (Data Column 2)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	33333.333333				
Replicate	3	0.000000	0.000000	0.000	1.0000	
Treatment	5	33333.333333	6666.666667	0.000	1.0000	
Error	15	0.000000	0.000000			
Randomized Complete Block (RCB) AOV For AMAPA ----- CONTROL % Aug-29-22 20 DA-A (Data Column 3)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	33235.958333				
Replicate	3	0.125000	0.041667	0.294	0.8290	
Treatment	5	33233.708333	6646.741667	46918.181	0.0001	
Error	15	2.125000	0.141667			
Randomized Complete Block (RCB) AOV For AMAPA ----- CONTROL % Sep-7-22 29 DA-A (Data Column 4)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	31072.958333				
Replicate	3	38.791667	12.930556	0.831	0.4974	
Treatment	5	30800.708333	6160.141667	395.797	0.0001	
Error	15	233.458333	15.563889			
Randomized Complete Block (RCB) AOV For AMAPA ----- Control % Sep-15-22 37 DA-A (Data Column 5)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	26930.958333				
Replicate	3	118.458333	39.486111	0.323	0.8086	
Treatment	5	24979.208333	4995.841667	40.876	0.0001	
Error	15	1833.291667	122.219444			
Randomized Complete Block (RCB) AOV For AMAPA ----- Control % Sep-22-22 44 DA-A (Data Column 6)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	18312.500000				
Replicate	3	254.166667	84.722222	1.041	0.4030	
Treatment	5	16837.500000	3367.500000	41.375	0.0001	
Error	15	1220.833333	81.388889			
Rating Unit % = PERCENT						

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Trial ID: PE-23-22 Study Dir.: JUSTIN HAND/ANDREW GRIMES

Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code Crop Code Part Rated Rating Data Type Rating Unit Rating Date Trt-Eval Interval						AMAPA ----- CONTROL % Aug-15-22 6 DA-A	AMAPA ----- CONTROL % Aug-22-22 13 DA-A	AMAPA ----- CONTROL % Aug-29-22 20 DA-A	AMAPA ----- CONTROL % Sep-7-22 29 DA-A	AMAPA ----- Control % Sep-15-22 37 DA-A
Trt	Treatment No. Name	Form Conc	Form Type	Grow Stg	Appl Code Plot	1	2	3	4	5
1	NTC				101	0.0	0.0	0.0	0.0	0.0
					202	0.0	0.0	0.0	0.0	0.0
					306	0.0	0.0	0.0	0.0	0.0
					405	0.0	0.0	0.0	0.0	0.0
					Mean =	0.0	0.0	0.0	0.0	0.0
2	VALOR EZ2	4 SC	PRE	A	102	100.0	100.0	100.0	85.0	70.0
					206	100.0	100.0	99.0	95.0	95.0
					301	100.0	100.0	100.0	100.0	90.0
					404	100.0	100.0	100.0	95.0	85.0
					Mean =	100.0	100.0	99.8	93.8	85.0
3	PANTHER	4 SC	PRE	A	103	100.0	100.0	99.0	90.0	75.0
					201	100.0	100.0	100.0	100.0	100.0
					304	100.0	100.0	100.0	100.0	85.0
					403	100.0	100.0	100.0	90.0	70.0
					Mean =	100.0	100.0	99.8	95.0	82.5
4	RED EAGLE FLUMIOXAZIN	51 WDG	PRE	A	104	100.0	100.0	100.0	95.0	80.0
					203	100.0	100.0	100.0	95.0	75.0
					305	100.0	100.0	99.0	95.0	99.0
					406	100.0	100.0	100.0	100.0	100.0
					Mean =	100.0	100.0	99.8	96.3	88.5
5	VALOR SX	51 WG	PRE	A	105	100.0	100.0	100.0	100.0	99.0
					204	100.0	100.0	100.0	95.0	75.0
					302	100.0	100.0	100.0	98.0	85.0
					401	100.0	100.0	100.0	100.0	99.0
					Mean =	100.0	100.0	100.0	98.3	89.5
6	ZALTUS	51 WG	PRE	A	106	100.0	100.0	100.0	98.0	90.0
					205	100.0	100.0	100.0	95.0	80.0
					303	100.0	100.0	100.0	95.0	80.0
					402	100.0	100.0	100.0	100.0	95.0
					Mean =	100.0	100.0	100.0	97.0	86.3

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Location: PONDER FARM		Investigator: Eric P. Prostko			
Weed Code					AMAPA
Crop Code					-----
Part Rated					
Rating Data Type					Control
Rating Unit					%
Rating Date					Sep-22-22
Trt-Eval Interval					44 DA-A
Trt Treatment	Form	Form	Grow	Appl	
No. Name	Conc	Type	Stg	Code Plot	6
1 NTC				101	0.0
				202	0.0
				306	0.0
				405	0.0
				Mean =	0.0
2 VALOR EZ2	4 SC	PRE	A	102	60.0
				206	65.0
				301	65.0
				404	75.0
				Mean =	66.3
3 PANTHER	4 SC	PRE	A	103	60.0
				201	80.0
				304	70.0
				403	55.0
				Mean =	66.3
4 RED EAGLE FLUMIOXAZIN	51 WDG	PRE	A	104	65.0
				203	60.0
				305	70.0
				406	90.0
				Mean =	71.3
5 VALOR SX	51 WG	PRE	A	105	80.0
				204	65.0
				302	65.0
				401	85.0
				Mean =	73.8
6 ZALTUS	51 WG	PRE	A	106	75.0
				205	65.0
				303	80.0
				402	80.0
				Mean =	75.0

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Rating Unit

% = PERCENT