

University of Georgia

GRAMOXONE + STORM + GROUP 15'S BARE-GROUND											
Trial ID: PE-20-22				Study Dir.: BLAIR COLVIN							
Location: PONDER FARM				Investigator: Eric P. Prostko							

Reps: 4

Plots: 6 by 25 feet

Appl. Amount: 15 GAL/AC

Mix Size: 1.5 L (total for 4 plots; minimum=0.782 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Diluent	Rep 1	Rep 2	Rep 3	Rep 4
1	NTC								-	101	203	302	406
2	GRAMOXONE	2 SL		12.0 oz/a		EPOST A		9.375 mL/mx	1474.4 mL	102	205	301	402
	STORM	4 SL		16.0 oz/a		EPOST A		12.5 mL/mx					
	INDUCE			0.25 % v/v		EPOST A		3.75 mL/mx					
3	GRAMOXONE	2 SL		12.0 oz/a		EPOST A		9.375 mL/mx	1472.0 mL	103	206	306	401
	STORM	4 SL		16.0 oz/a		EPOST A		12.5 mL/mx					
	ANTHEM FLEX	4 SC		3.0 oz/a		EPOST A		2.344 mL/mx					
	INDUCE			0.25 % v/v		EPOST A		3.75 mL/mx					
4	GRAMOXONE	2 SL		12.0 oz/a		EPOST A		9.375 mL/mx	1436.9 mL	104	201	305	404
	STORM	4 SL		16.0 oz/a		EPOST A		12.5 mL/mx					
	WARRANT	3 ME		48.0 oz/a		EPOST A		37.5 mL/mx					
	INDUCE			0.25 % v/v		EPOST A		3.75 mL/mx					
5	GRAMOXONE	2 SL		12.0 oz/a		EPOST A		9.375 mL/mx	1468.1 mL	105	202	304	405
	STORM	4 SL		16.0 oz/a		EPOST A		12.5 mL/mx					
	OUTLOOK	6 EC		12.8 oz/a		EPOST A		10.0 mL/mx					
6	GRAMOXONE	2 SL		12.0 oz/a		EPOST A		9.375 mL/mx	1465.6 mL	106	204	303	403
	STORM	4 SL		16.0 oz/a		EPOST A		12.5 mL/mx					
	DUAL MAGNUM	7.62 EC		16.0 oz/a		EPOST A		12.5 mL/mx					

Sort Order: Treatment

Trial Comments

SUMMARY:

- 1) GRAMOXONE + STORM + GROUP 15 HERBICIDES WERE MORE EFFECTIVE ON PALMER AMARANTH AND ANNUAL GRASSES THAN GRAMOXONE + STORM ALONE.
- 2) NO DIFFERENCES IN PALMER AMARANTH CONTROL WERE OBSERVED BETWEEN THE GROUP 15 HERBICIDES.
- 3) GRAMOXONE + STORM + ANTHEM FLEX WAS MORE EFFECTIVE ON ANNUAL GRASSES THAN THE OTHER GROUP 15 TANK-MIXTURES WITH GRAMOXONE + STORM.

University of Georgia

GRAMOXONE + STORM + GROUP 15'S

BARE-GROUND

Trial ID: PE-20-22 Study Dir.: BLAIR COLVIN

Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: BLAIR COLVIN

Title: _____

Affiliation: _____

Postal Code: _____

Investigator: Eric P. Prostko

Title: _____

Affiliation: _____

Postal Code: _____

TRIAL LOCATION

City: _____

State/Prov.: _____

Postal Code: _____

Country: _____

E-Longitude of LL Corner °: _____

Altitude of LL Corner: _____ Unit: _____

Directions: _____

Trial Status: E

Trial Reliability: _____

Initiation Date: _____

Planned Completion Date: _____

N-Latitude of LL Corner °: _____

Angle y-axis to North °: _____

COOPERATOR/LANDOWNER

Cooperator: _____

Org: _____

Address 1: _____

Address 2: _____

City: _____

State/Prov.: _____

Postal Code: _____

Country: _____

Phone No: _____

Fax No: _____

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
2.	AGRASS	TX	PAN/CRAB/GOOSE
3.	CYPES	YE	LLOW NUTSEDGE
4.	RAPRA	WI	LD RADISH

Crop 1: BAREGROUND

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: 4

Site Type: _____

Tillage Type: _____ Study Design: RACOB

Trial Initiation Comments: _____

	Previous Crops	Previous Pesticides	Year
1.	TOBACCO		2021

MAINTENANCE

Field Prep./Maintenance:

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

University of Georgia

GRAMOXONE + STORM + GROUP 15'S

BARE-GROUND

Trial ID: PE-20-22 Study Dir.: BLAIR COLVIN

Location: PONDER FARM Investigator: Eric P. Prostko

SOIL DESCRIPTION

% Sand: 92 % OM: 0.62 Texture: SAND
 % Silt: 6 pH: 6.0 Soil Name: FUQUAY
 % Clay: 2 CEC: 2.9 Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.	Apr-26-22		0.5	IN	SPRINKLER - LATERAL MOVE		
2.	May-2-22		0.35	IN	SPRINKLER - LATERAL MOVE		
3.	May-5-22		0.20	IN	SPRINKLER - LATERAL MOVE		
4.	May-6-22		0.45	IN	RAINFALL		
5.	May-10-22		0.38	IN	SPRINKLER - LATERAL MOVE		
6.	May-24-22		1.8	IN	RAINFALL		
7.							
8.							
9.							

Overall Moisture Conditions: _____

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A
Application Date:	Apr-21-22
Time of Day:	7:27 AM
Application Method:	BROADCAST
Application Timing:	EPOST
Applic. Placement:	FOLIAGE
Air Temp., Unit:	59 F
% Relative Humidity:	87
Wind Velocity, Unit:	2 MPH
Dew Presence (Y/N):	Y
Water Hardness:	--
Soil Temp., Unit:	60 F
Soil Moisture:	OPTIMUM
% Cloud Cover:	10

CROP STAGE AT EACH APPLICATION

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

University of Georgia

GRAMOXONE + STORM + GROUP 15'S

BARE-GROUND

Trial ID: PE-20-22 Study Dir.: BLAIR COLVIN

Location: PONDER FARM Investigator: Eric P. Prostko

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	AMAPA,
Stage Scale:	1-2"
Density, Unit:	
Weed 2 Code, Stage:	AGRAS,
Stage Scale:	1-2"
Density, Unit:	
Weed 3 Code, Stage:	CYPES,
Stage Scale:	4-5"
Density, Unit:	
Weed 4 Code, Stage:	RAPRA,
Stage Scale:	1-3"
Density, Unit:	

APPLICATION EQUIPMENT

	A
Appl. Equipment:	BACKPACK
Operating Pressure:	36
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

University of Georgia

GRAMOXONE + STORM + GROUP 15'S BARE-GROUND												
Trial ID: PE-20-22			Study Dir.: BLAIR COLVIN									
Location: PONDER FARM			Investigator: Eric P. Prostko									
Weed Code							Amapa	Agrass	Amapa	Agrass	Amapa	Agrass
Crop Code							-----	-----	-----	-----	-----	-----
Part Rated												
Rating Data Type							Control	Control	Control	Control	Control	Control
Rating Unit							%	%	%	%	%	%
Rating Date							Apr-26-22	Apr-26-22	May-6-22	May-6-22	May-19-22	May-19-22
Trt-Eval Interval							5 DA-A	5 DA-A	15 DA-A	15 DA-A	28 DA-A	28 DA-A
Trt	Treatment	Form	Form	Rate	Grow	Appl	1	2	3	4	5	6
No.	Name	Conc	Type	Rate Unit	Stg	Code						
1	NTC						0.0 b	0.0 c	0.0 c	0.0 d	0.0 c	0.0 e
2	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		99.0 a	70.0 ab	91.3 b	51.3 c	62.3 b	18.8 d
	STORM	4 SL		16.0 oz/a	EPOST A							
	INDUCE			0.25 % v/v	EPOST A							
3	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		99.0 a	75.0 a	99.0 a	71.3 a	99.0 a	70.0 a
	STORM	4 SL		16.0 oz/a	EPOST A							
	ANTHEM FLEX	4 SC		3.0 oz/a	EPOST A							
	INDUCE			0.25 % v/v	EPOST A							
4	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		99.0 a	70.0 ab	99.0 a	60.0 b	99.0 a	32.5 c
	STORM	4 SL		16.0 oz/a	EPOST A							
	WARRANT	3 ME		48.0 oz/a	EPOST A							
	INDUCE			0.25 % v/v	EPOST A							
5	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		99.0 a	65.0 b	99.0 a	57.5 b	98.0 a	36.3 bc
	STORM	4 SL		16.0 oz/a	EPOST A							
	OUTLOOK	6 EC		12.8 oz/a	EPOST A							
6	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		99.0 a	70.0 ab	99.0 a	62.5 b	96.8 a	45.0 b
	STORM	4 SL		16.0 oz/a	EPOST A							
	DUAL MAGNUM	7.62 EC		16.0 oz/a	EPOST A							
LSD P=.10							.	5.99	1.27	5.23	22.50	10.57
Standard Deviation							0.00	4.83	1.02	4.22	18.15	8.53
CV							0.0	8.28	1.26	8.36	23.94	25.28
Grand Mean							82.50	58.33	81.21	50.42	75.83	33.75
Bartlett's X2^							.	2.476	17.097	11.878	16.791	10.143
P(Bartlett's X2)							.	0.78	0.004*	0.037*	0.005*	0.071

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 because error mean square = 0.

^Calculated from residual.

University of Georgia

GRAMOXONE + STORM + GROUP 15'S BARE-GROUND									
Trial ID: PE-20-22		Study Dir.: BLAIR COLVIN							
Location: PONDER FARM		Investigator: Eric P. Prostko							
Weed Code						Amapa	Agrass		
Crop Code						-----	-----		
Part Rated						Control	Control		
Rating Data Type						%	%		
Rating Unit						Jun-1-22	Jun-1-22		
Rating Date						41 DA-A	41 DA-A		
Trt-Eval Interval									
Trt	Treatment	Form	Form	Rate	Grow	Appl	7	8	
No.	Name	Conc	Type	Rate	Unit	Stg	Code		
1	NTC						0.0 c	0.0 c	
2	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		42.5 b	2.5 bc	
	STORM	4 SL		16.0 oz/a	EPOST A				
	INDUCE			0.25 % v/v	EPOST A				
3	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		98.8 a	33.8 a	
	STORM	4 SL		16.0 oz/a	EPOST A				
	ANTHEM FLEX	4 SC		3.0 oz/a	EPOST A				
	INDUCE			0.25 % v/v	EPOST A				
4	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		98.8 a	10.0 b	
	STORM	4 SL		16.0 oz/a	EPOST A				
	WARRANT	3 ME		48.0 oz/a	EPOST A				
	INDUCE			0.25 % v/v	EPOST A				
5	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		98.8 a	5.0 bc	
	STORM	4 SL		16.0 oz/a	EPOST A				
	OUTLOOK	6 EC		12.8 oz/a	EPOST A				
6	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		96.3 a	5.0 bc	
	STORM	4 SL		16.0 oz/a	EPOST A				
	DUAL MAGNUM	7.62 EC		16.0 oz/a	EPOST A				
LSD P=.10							26.36	9.51	
Standard Deviation							21.27	7.67	
CV							29.33	81.81	
Grand Mean							72.50	9.38	
Bartlett's X2^							16.74	11.326	
P(Bartlett's X2)							0.005*	0.045*	

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 because error mean square = 0.

^Calculated from residual.

GROMOXONE + STORM + GROUP 15'S BARE-GROUND Trial ID: PE-20-22 Study Dir.: BLAIR COLVIN Location: PONDER FARM Investigator: Eric P. Prostko						
Randomized Complete Block (RCB) AOV For Amapa ----- Control % Apr-26-22 5 DA-A (Data Column 1)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	32670.000000				
Replicate	3	0.000000	0.000000	0.000	1.0000	
Treatment	5	32670.000000	6534.000000	0.000	1.0000	
Error	15	0.000000	0.000000			
Randomized Complete Block (RCB) AOV For Agrass ----- Control % Apr-26-22 5 DA-A (Data Column 2)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	17033.333333				
Replicate	3	150.000000	50.000000	2.143	0.1375	
Treatment	5	16533.333333	3306.666667	141.714	0.0001	
Error	15	350.000000	23.333333			
Randomized Complete Block (RCB) AOV For Amapa ----- Control % May-6-22 15 DA-A (Data Column 3)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	31865.958333				
Replicate	3	3.125000	1.041667	1.000	0.4199	
Treatment	5	31847.208333	6369.441667	6114.665	0.0001	
Error	15	15.625000	1.041667			
Randomized Complete Block (RCB) AOV For Agrass ----- Control % May-6-22 15 DA-A (Data Column 4)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	13345.833333				
Replicate	3	20.833333	6.944444	0.391	0.7615	
Treatment	5	13058.333333	2611.666667	146.906	0.0001	
Error	15	266.666667	17.777778			
Randomized Complete Block (RCB) AOV For Amapa ----- Control % May-19-22 28 DA-A (Data Column 5)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	37573.333333				
Replicate	3	881.000000	293.666667	0.891	0.4683	
Treatment	5	31749.833333	6349.966667	19.272	0.0001	
Error	15	4942.500000	329.500000			
Randomized Complete Block (RCB) AOV For Agrass ----- Control % May-19-22 28 DA-A (Data Column 6)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	12362.500000				
Replicate	3	20.833333	6.944444	0.095	0.9614	
Treatment	5	11250.000000	2250.000000	30.916	0.0001	
Error	15	1091.666667	72.777778			
Randomized Complete Block (RCB) AOV For Amapa ----- Control % Jun-1-22 41 DA-A (Data Column 7)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	43050.000000				
Replicate	3	1116.666667	372.222222	0.823	0.5013	
Treatment	5	35150.000000	7030.000000	15.545	0.0001	
Error	15	6783.333333	452.222222			
Randomized Complete Block (RCB) AOV For Agrass ----- Control % Jun-1-22 41 DA-A (Data Column 8)						
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	
Total	23	4215.625000				
Replicate	3	261.458333	87.152778	1.482	0.2597	
Treatment	5	3071.875000	614.375000	10.445	0.0002	
Error	15	882.291667	58.819444			
Rating Unit % = PERCENT						

University of Georgia

GRAMOXONE + STORM + GROUP 15'S BARE-GROUND											
Trial ID: PE-20-22		Study Dir.: BLAIR COLVIN									
Location: PONDER FARM		Investigator: Eric P. Prostko									
Weed Code						Amapa	Agrass	Amapa	Agrass	Amapa	Agrass
Crop Code						-----	-----	-----	-----	-----	-----
Part Rated											
Rating Data Type						Control	Control	Control	Control	Control	Control
Rating Unit						%	%	%	%	%	%
Rating Date						Apr-26-22	Apr-26-22	May-6-22	May-6-22	May-19-22	May-19-22
Trt-Eval Interval						5 DA-A	5 DA-A	15 DA-A	15 DA-A	28 DA-A	28 DA-A
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Rate Unit	Stg	Code Plot	1	2	3	4	6
1	NTC					101	0.0	0.0	0.0	0.0	0.0
						203	0.0	0.0	0.0	0.0	0.0
						302	0.0	0.0	0.0	0.0	0.0
						406	0.0	0.0	0.0	0.0	0.0
						Mean =	0.0	0.0	0.0	0.0	0.0
2	GRAMOXONE	2 SL		12.0 oz/a	EPOST A	102	99.0	75.0	90.0	50.0	20.0
	STORM	4 SL		16.0 oz/a	EPOST A	205	99.0	75.0	95.0	50.0	10.0
	INDUCE			0.25 % v/v	EPOST A	301	99.0	65.0	90.0	50.0	15.0
						402	99.0	65.0	90.0	55.0	30.0
						Mean =	99.0	70.0	91.3	51.3	18.8
3	GRAMOXONE	2 SL		12.0 oz/a	EPOST A	103	99.0	85.0	99.0	80.0	75.0
	STORM	4 SL		16.0 oz/a	EPOST A	206	99.0	65.0	99.0	65.0	50.0
	ANTHEM FLEX	4 SC		3.0 oz/a	EPOST A	306	99.0	75.0	99.0	70.0	75.0
	INDUCE			0.25 % v/v	EPOST A	401	99.0	75.0	99.0	70.0	80.0
						Mean =	99.0	75.0	99.0	71.3	70.0
4	GRAMOXONE	2 SL		12.0 oz/a	EPOST A	104	99.0	75.0	99.0	60.0	30.0
	STORM	4 SL		16.0 oz/a	EPOST A	201	99.0	75.0	99.0	60.0	40.0
	WARRANT	3 ME		48.0 oz/a	EPOST A	305	99.0	65.0	99.0	60.0	30.0
	INDUCE			0.25 % v/v	EPOST A	404	99.0	65.0	99.0	60.0	30.0
						Mean =	99.0	70.0	99.0	60.0	32.5
5	GRAMOXONE	2 SL		12.0 oz/a	EPOST A	105	99.0	65.0	99.0	55.0	40.0
	STORM	4 SL		16.0 oz/a	EPOST A	202	99.0	65.0	99.0	60.0	45.0
	OUTLOOK	6 EC		12.8 oz/a	EPOST A	304	99.0	65.0	99.0	65.0	30.0
						405	99.0	65.0	99.0	50.0	30.0
						Mean =	99.0	65.0	99.0	57.5	36.3
6	GRAMOXONE	2 SL		12.0 oz/a	EPOST A	106	99.0	75.0	99.0	60.0	40.0
	STORM	4 SL		16.0 oz/a	EPOST A	204	99.0	65.0	99.0	65.0	50.0
	DUAL MAGNUM	7.62 EC		16.0 oz/a	EPOST A	303	99.0	75.0	99.0	65.0	50.0
						403	99.0	65.0	99.0	60.0	40.0
						Mean =	99.0	70.0	99.0	62.5	45.0

University of Georgia

GRAMOXONE + STORM + GROUP 15'S BARE-GROUND									
Trial ID: PE-20-22		Study Dir.: BLAIR COLVIN							
Location: PONDER FARM		Investigator: Eric P. Prostko							
Weed Code						Amapa	Agrass		
Crop Code						-----	-----		
Part Rated									
Rating Data Type						Control	Control		
Rating Unit						%	%		
Rating Date						Jun-1-22	Jun-1-22		
Trt-Eval Interval						41 DA-A	41 DA-A		
Trt	Treatment	Form	Form	Rate	Grow	Appl			
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	
								7	8
1	NTC						101	0.0	0.0
							203	0.0	0.0
							302	0.0	0.0
							406	0.0	0.0
							Mean =	0.0	0.0
2	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		102	0.0	0.0
	STORM	4 SL		16.0 oz/a	EPOST A		205	100.0	0.0
	INDUCE			0.25 % v/v	EPOST A		301	70.0	0.0
							402	0.0	10.0
							Mean =	42.5	2.5
3	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		103	100.0	35.0
	STORM	4 SL		16.0 oz/a	EPOST A		206	100.0	10.0
	ANTHEM FLEX	4 SC		3.0 oz/a	EPOST A		306	95.0	40.0
	INDUCE			0.25 % v/v	EPOST A		401	100.0	50.0
							Mean =	98.8	33.8
4	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		104	100.0	10.0
	STORM	4 SL		16.0 oz/a	EPOST A		201	100.0	10.0
	WARRANT	3 ME		48.0 oz/a	EPOST A		305	95.0	10.0
	INDUCE			0.25 % v/v	EPOST A		404	100.0	10.0
							Mean =	98.8	10.0
5	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		105	100.0	0.0
	STORM	4 SL		16.0 oz/a	EPOST A		202	100.0	10.0
	OUTLOOK	6 EC		12.8 oz/a	EPOST A		304	95.0	10.0
							405	100.0	0.0
							Mean =	98.8	5.0
6	GRAMOXONE	2 SL		12.0 oz/a	EPOST A		106	100.0	0.0
	STORM	4 SL		16.0 oz/a	EPOST A		204	100.0	0.0
	DUAL MAGNUM	7.62 EC		16.0 oz/a	EPOST A		303	85.0	10.0
							403	100.0	10.0
							Mean =	96.3	5.0

University of Georgia

GRAMOXONE + STORM + GROUP 15'S BARE-GROUND	
Trial ID: PE-20-22	Study Dir.: BLAIR COLVIN
Location: PONDER FARM	Investigator: Eric P. Prostko
Rating Unit	
% = PERCENT	