

University of Georgia

WEED CONTROL IN ENLIST SOYBEANS WITH
DIFFERENT GPA AND SPRAY TIPS - YEAR 2

Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 4 Plots: 6 by 25 feet
Appl. Amount: 10 GAL/AC Mix Size: 1.5 L (total for 4 plots; minimum=5214 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Appl Code	Amt Product to Measure	Diluent	Rep			
										1	2	3	4
1	NTC								-	101	212	304	402
2	10 GPA XR110015 NOZZLES								-	102	208	311	409
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx	1425 mL				
	AMS			2.5	% v/v	POST	A	37.5 mL/mx					
3	10 GPA AIXR110015 NOZZLES								-	103	206	305	404
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx	1387.5 mL				
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx					
4	10 GPA TT110015 NOZZLES								-	104	203	306	407
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx	1387.5 mL				
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx					
5	15 GPA XR11002 NOZZLES								-	105	204	312	403
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx	1425 mL				
	AMS			2.5	% v/v	POST	A	37.5 mL/mx					
6	15 GPA AIXR11002 NOZZLES								-	106	209	303	408
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx	1387.5 mL				
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx					
7	15 GPA TT11002 NOZZLES								-	107	201	302	412
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx	1387.5 mL				
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx					
8	20 GPA XR110025 NOZZLES								-	108	205	309	406
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx	1425 mL				
	AMS			2.5	% v/v	POST	A	37.5 mL/mx					
9	20 GPA AIXR110025 NOZZLES								-	109	211	307	411
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx	1387.5 mL				
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx					
10	20 GPA TT110025 NOZZLES								-	110	202	308	405
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx	1387.5 mL				
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx					
11	15 GPA AIXR11002 NOZZLES								-	111	210	301	410
	REFLEX	2	SL	24.0	oz/a	POST	A	28.12 mL/mx	1467.6 mL				
	CLASSIC	25	DG	0.50	oz/a	POST	A	0.5617 g/mx					
12	15 GPA AIXR11002 NOZZLES								-	112	207	310	401
	LIBERTY	2.34	SL	32.0	oz/a	POST	A	37.5 mL/mx	1406.3 mL				
	EVERPREX	7.64	EC	16.0	oz/a	POST	A	18.75 mL/mx					
	ENLIST ONE	3.8	SL	32.0	oz/a	POST	A	37.5 mL/mx					

Sort Order: Replicate 1

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Trial Comments

MIX RATES WERE ADJUSTED ACCORDING TO GPA

SPRAY PRESSURES:

10 GPA = 28 PSI
15 GPA = 36 PSI
20 GPA = 39 PSI

WEED HEIGHTS AT APPLICATION:

AMAPA = 0.5-4"
RAPRA = 0.5'
CYPES = 5-6"
AGRASS = 0.5"

AGRASS = NON-UNIFORM MIXTURE OF CRABGRASS + TEXAS PANICUM + GOOSEGRASS + CROWFOOTGRASS + SANDBUR

SUMMARY:

- 1) AT 6 DAT, ENLIST ONE TANK-MIXED WITH LIBERTY INCREASED CROP INJURY, ESPECIALLY LEAF NECROSIS. LESS LEAF NECROSIS WAS OBSERVED AT 20 GPA THAN 10 GPA OR 15 GPA.
- 2) AT 6 DAT, ANNUAL GRASS CONTROL WAS REDUCED WHEN ENLIST ONE + LIBERTY WAS APPLIED AT 10 GPA WITH TTI NOZZLES. SUBSEQUENT GRASS CONTROL RATINGS WERE NOT OBTAINED DUE TO HIGH DENSITY OF PALMER AMARANTH WHICH CHOKED OUT THE GRASSES (~170/FT²).
- 3) AT 28 DAT, SOYBEAN STUNTING AND LEAF NECROSIS WAS 5% OR LESS WITH ALL TREATMENTS.
- 4) AT 28 DAT, PALMER AMARANTH CONTROL WITH LIBERTY OR LIBERTY + ENLIST ONE WAS <72% WITH NO DIFFERENCES IN CONTROL BETWEEN SIMILAR NOZZLES AT DIFFERENT GPA OR SIMILAR NOZZLES WITHIN SAME GPA.
- 5) AT 28 DAT, THE ONLY TREATMENTS THAT PROVIDED >94% CONTROL OF PALMER AMARANTH WERE AS FOLLOWS:
 - A) 15 GPA + AIXR11002 NOZZLES = REFLEX + CLASSIC + INDUCE OR LIBERTY + EVERPREX + ENLIST ONE.
- 6) THE INCLUSION OF RESIDUAL HERBICIDES, SUCH AS EVERPREX, IN THE ENLIST WEED CONTROL SYSTEM ARE IMPORTANT FOR THE CONTROL OF PALMER AMARANTH.

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Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
Location: PONDER FARM Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: JOHN RICHBURG **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 °: -83.658461 **N-Latitude of LL Corner °:** 31.5070786
Altitude of LL Corner: 86.10 **Unit:** m **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
2.	RAPRA	WI	LD RADISH
3.	CYPES	YE	LLOW NUTSEDGE
4.	AGRASS	CR	AB/XPAN/GOOSE/CROW

Crop 1: GLYMA SOYBEAN **Variety:** PIONEER 53T90E
Planting Date: Apr-18-23 **Planting Method:** GREAT PLAINS DRILL
Rate: 117900 SEED/A **Depth:** 1.0 IN **Perennial Age:** _____
Row Spacing: 15 IN **Spacing Within Row:** _____ **Seed Bed:** _____
Soil Temperature: _____ **Soil Moisture:** OPTIMUM **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: _____
Tillage Type: CONVENTIONAL **Study Design:** RACOBL

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.	SORGHUM		2022

MAINTENANCE

Field Prep./Maintenance: 300 LBS/A 5-15-30 PREPLANT
 1 TON/A LIME - PREPLANT

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.	Apr-19-23		0.5	IN	SPRINKLER - LATERAL MOVE		
2.	Apr-26-23		0.5	IN	SPRINKLER - LATERAL MOVE		
3.	Apr-27-23		1.0	IN	RAIN (MODERATE)		
4.	Apr-29-23		0.65	IN	RAIN (MODERATE)		
5.	May-11-23		0.5	IN	SPRINKLER - LATERAL MOVE		
6.	May-12-23		2.5	IN	RAIN (MODERATE)		
7.	May-20-23		0.1	IN	RAIN (GENTLE)		
8.	May-22-23		0.75	IN	RAIN (MODERATE)		
9.	May-23-23		0.3	IN	RAIN (GENTLE)		
10.							
11.							
12.							

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

APPLICATION DESCRIPTION

	A
Application Date:	May-9-23
Time of Day:	7:00 AM
Application Method:	BROADCAST
Application Timing:	POST
Applic. Placement:	FOLIAGE
Air Temp., Unit:	69 F
% Relative Humidity:	93
Wind Velocity, Unit:	2 MPH
Dew Presence (Y/N):	N
Water Hardness:	--
Soil Temp., Unit:	74 F
Soil Moisture:	DRY
% Cloud Cover:	95

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLYMA,
Stage Scale:	V1-V2
Height, Unit:	4, IN

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	AMAPA,
Stage Scale:	5 LF
Density, Unit:	170 FT2
Weed 2 Code, Stage:	RAPRA,
Stage Scale:	1 LF
Density, Unit:	4 FT2
Weed 3 Code, Stage:	CYPES,
Stage Scale:	4-6L
Density, Unit:	1 FT2
Weed 4 Code, Stage:	AGRAS,
Stage Scale:	1 LF
Density, Unit:	5 FT2

APPLICATION EQUIPMENT

	A
Appl. Equipment:	BACKPACK
Operating Pressure:	
Nozzle Type:	MANY
Nozzle Size:	MANY
Nozzle Spacing, Unit:	
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:	10 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	

Trt No	Treatment Application Comment

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Weed Code		-----	-----	-----	Agrass	Amapa	-----	Amapa	-----	-----						
Crop Code		Glyma	Glyma	Glyma	-----	-----	Glyma	-----	Glyma	Glyma						
Rating Data Type		Stunting	Chlorosis	Necrosis	Control	Control	Necrosis	Control	Necrosis	Stunting						
Rating Unit		%	%	%	%	%	%	%	%	%						
Rating Date		May-15-23	May-15-23	May-15-23	May-15-23	May-15-23	May-22-23	May-22-23	May-30-23	May-30-23						
Trt-Eval Interval		6 DA-A	6 DA-A	6 DA-A	6 DA-A	6 DA-A	13 DA-A	13 DA-A	21 DA-A	21 DA-A						
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Appl Stg	Code	1	2	3	4	5	6	7	8	9
1	NTC							0.0 d	0.0 c	0.0 g	0.0 d	0.0 c	0.0 d	0.0 f	0.0 -	0.0 b
2	10 GPA XR110015 NOZZLES LIBERTY AMS	2.34 SL		32.0 oz/a 2.5 % v/v	POST A POST A			6.3 bc	5.0 a	0.0 g	97.0 a	97.0 a	0.0 d	67.5 bc	0.0 -	1.3 b
3	10 GPA AIXR110015 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A			7.5 ab	5.0 a	18.8 cd	98.0 a	99.0 a	11.3 b	72.5 bc	0.0 -	1.3 b
4	10 GPA TT110015 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A			3.8 c	5.0 a	20.0 bc	77.3 b	91.3 b	10.0 bc	57.5 de	0.0 -	0.0 b
5	15 GPA XR11002 NOZZLES LIBERTY AMS	2.34 SL		32.0 oz/a 2.5 % v/v	POST A POST A			6.3 bc	5.0 a	0.0 g	99.0 a	99.0 a	1.3 d	63.8 cd	0.0 -	0.0 b
6	15 GPA AIXR11002 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A			6.3 bc	5.0 a	17.5 de	92.0 a	98.0 a	11.3 b	75.0 b	0.0 -	2.5 b
7	15 GPA TT11002 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A			6.3 bc	5.0 a	17.5 de	96.0 a	99.0 a	10.0 bc	72.5 bc	0.0 -	1.3 b
8	20 GPA XR110025 NOZZLES LIBERTY AMS	2.34 SL		32.0 oz/a 2.5 % v/v	POST A POST A			5.0 bc	5.0 a	0.0 g	98.0 a	98.0 a	0.0 d	52.5 e	0.0 -	1.3 b
9	20 GPA AIXR110025 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A			6.3 bc	5.0 a	16.3 ef	96.0 a	99.0 a	7.5 c	75.0 b	0.0 -	0.0 b
10	20 GPA TT110025 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A			6.3 bc	5.0 a	15.0 f	95.0 a	98.0 a	10.0 bc	67.5 bc	0.0 -	2.5 b
11	15 GPA AIXR11002 NOZZLES REFLEX CLASSIC INDUCE	2 SL 25 DG		24.0 oz/a 0.50 oz/a 0.25 % v/v	POST A POST A POST A			10.0 a	3.8 b	28.8 a	25.0 c	99.0 a	16.3 a	97.0 a	2.5 -	7.5 a

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 12 because error mean square = 0.
 ^Calculated from residual.

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 Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code	-----	-----	-----	Agrass	Amapa	-----	Amapa	-----	-----
Crop Code	Glyma	Glyma	Glyma	-----	-----	Glyma	-----	Glyma	Glyma
Rating Data Type	Stunting	Chlorosis	Necrosis	Control	Control	Necrosis	Control	Necrosis	Stunting
Rating Unit	%	%	%	%	%	%	%	%	%
Rating Date	May-15-23	May-15-23	May-15-23	May-15-23	May-15-23	May-22-23	May-22-23	May-30-23	May-30-23
Trt-Eval Interval	6 DA-A	6 DA-A	6 DA-A	6 DA-A	6 DA-A	13 DA-A	13 DA-A	21 DA-A	21 DA-A
Trt No.	1	2	3	4	5	6	7	8	9
Treatment Name	Form Conc	Form Type	Rate	Grow Stg	Appl Code				
12 15 GPA	7.5 ab	5.0 a	21.3 b	97.0 a	99.0 a	11.3 b	95.5 a	0.0 -	1.3 b
AIXR11002 NOZZLES									
LIBERTY	2.34 SL		32.0 oz/a	POST A					
EVERPREX	7.64 EC		16.0 oz/a	POST A					
ENLIST ONE	3.8 SL		32.0 oz/a	POST A					
LSD P=.10	2.95	0.86	2.29	13.21	2.19	2.95	9.51	1.73	2.66
Standard Deviation	2.47	0.72	1.91	11.03	1.83	2.47	7.94	1.44	2.22
CV	41.52	16.11	14.81	13.65	2.04	33.33	11.97	692.82	142.25
Grand Mean	5.94	4.48	12.92	80.85	89.69	7.40	66.35	0.21	1.56

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Weed Code						Amapa	-----	-----	Amapa	
Crop Code						-----	Glyma	Glyma	-----	
Rating Data Type						Control	Stunting	Necrosis	Control	
Rating Unit						%	%	%	%	
Rating Date						May-30-23	Jun-6-23	Jun-6-23	Jun-6-23	
Trt-Eval Interval						21 DA-A	28 DA-A	28 DA-A	28 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	10	11	12	13
1	NTC						0.0 g	0.0 -	0.0 -	0.0 f
2	10 GPA XR110015 NOZZLES LIBERTY AMS	2.34 SL		32.0 oz/a 2.5 % v/v	POST A POST A		62.5 def	2.5 -	0.0 -	65.0 cde
3	10 GPA AIXR110015 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A		61.3 ef	1.3 -	0.0 -	65.0 cde
4	10 GPA TTI110015 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A		65.0 cde	2.5 -	0.0 -	66.3 b-e
5	15 GPA XR11002 NOZZLES LIBERTY AMS	2.34 SL		32.0 oz/a 2.5 % v/v	POST A POST A		62.5 def	1.3 -	0.0 -	63.8 de
6	15 GPA AIXR11002 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A		70.0 bc	0.0 -	0.0 -	68.8 bcd
7	15 GPA TTI11002 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A		73.8 b	3.8 -	0.0 -	71.3 b
8	20 GPA XR110025 NOZZLES LIBERTY AMS	2.34 SL		32.0 oz/a 2.5 % v/v	POST A POST A		57.5 f	5.0 -	0.0 -	61.3 e
9	20 GPA AIXR110025 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A		68.8 bcd	1.3 -	0.0 -	70.0 bc
10	20 GPA TTI110025 NOZZLES ENLIST ONE LIBERTY AMS	3.8 SL 2.34 SL		32.0 oz/a 32.0 oz/a 2.5 % v/v	POST A POST A POST A		68.8 bcd	0.0 -	0.0 -	66.3 b-e
11	15 GPA AIXR11002 NOZZLES REFLEX CLASSIC INDUCE	2 SL 25 DG		24.0 oz/a 0.50 oz/a 0.25 % v/v	POST A POST A POST A		98.0 a	3.8 -	0.0 -	94.8 a

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Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code	Amapa	-----	-----	Amapa
Crop Code	-----	Glyma	Glyma	-----
Rating Data Type	Control	Stunting	Necrosis	Control
Rating Unit	%	%	%	%
Rating Date	May-30-23	Jun-6-23	Jun-6-23	Jun-6-23
Trt-Eval Interval	21 DA-A	28 DA-A	28 DA-A	28 DA-A
Trt Treatment	10	11	12	13
No. Name				
12 15 GPA	98.0 a	0.0 -	0.0 -	96.0 a
AIXR11002 NOZZLES				
LIBERTY	2.34 SL	32.0 oz/a	POST A	
EVERPREX	7.64 EC	16.0 oz/a	POST A	
ENLIST ONE	3.8 SL	32.0 oz/a	POST A	
LSD P=.10	6.61	3.71	.	5.75
Standard Deviation	5.52	3.10	0.00	4.81
CV	8.43	175.07	0.0	7.32
Grand Mean	65.50	1.77	0.00	65.69

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).
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 Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.
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Randomized Complete Block (RCB) AOV For ----- Glyma Stunting % May-15-23 6 DA-A (Data Column 1)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	482.812500			
Replicate	3	30.729167	10.243056	1.686	0.1891
Treatment	11	251.562500	22.869318	3.764	0.0015
Error	33	200.520833	6.076389		
Randomized Complete Block (RCB) AOV For ----- Glyma Chlorosis % May-15-23 6 DA-A (Data Column 2)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	111.979167			
Replicate	3	1.562500	0.520833	1.000	0.4051
Treatment	11	93.229167	8.475379	16.273	0.0001
Error	33	17.187500	0.520833		
Randomized Complete Block (RCB) AOV For ----- Glyma Necrosis % May-15-23 6 DA-A (Data Column 3)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	4641.666667			
Replicate	3	4.166667	1.388889	0.379	0.7685
Treatment	11	4516.666667	410.606061	112.138	0.0001
Error	33	120.833333	3.661616		
Randomized Complete Block (RCB) AOV For Agrass ----- Control % May-15-23 6 DA-A (Data Column 4)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	52223.979167			
Replicate	3	638.395833	212.798611	1.748	0.1764
Treatment	11	47567.229167	4324.293561	35.512	0.0001
Error	33	4018.354167	121.768308		
Randomized Complete Block (RCB) AOV For Amapa ----- Control % May-15-23 6 DA-A (Data Column 5)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	35430.312500			
Replicate	3	10.229167	3.409722	1.018	0.3971
Treatment	11	35309.562500	3209.960227	958.450	0.0001
Error	33	110.520833	3.349116		
Randomized Complete Block (RCB) AOV For ----- Glyma Necrosis % May-22-23 13 DA-A (Data Column 6)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	1599.479167			
Replicate	3	18.229167	6.076389	1.000	0.4051
Treatment	11	1380.729167	125.520833	20.657	0.0001
Error	33	200.520833	6.076389		
Randomized Complete Block (RCB) AOV For Amapa ----- Control % May-22-23 13 DA-A (Data Column 7)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	29216.979167			
Replicate	3	349.395833	116.465278	1.846	0.1581
Treatment	11	26785.229167	2435.020833	38.589	0.0001
Error	33	2082.354167	63.101641		
Randomized Complete Block (RCB) AOV For ----- Glyma Necrosis % May-30-23 21 DA-A (Data Column 8)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	97.916667			
Replicate	3	6.250000	2.083333	1.000	0.4051
Treatment	11	22.916667	2.083333	1.000	0.4671
Error	33	68.750000	2.083333		
Randomized Complete Block (RCB) AOV For ----- Glyma Stunting % May-30-23 21 DA-A (Data Column 9)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	407.812500			
Replicate	3	55.729167	18.576389	3.760	0.0199
Treatment	11	189.062500	17.187500	3.479	0.0027
Error	33	163.020833	4.940025		
Randomized Complete Block (RCB) AOV For Amapa ----- Control % May-30-23 21 DA-A (Data Column 10)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	27824.000000			
Replicate	3	368.166667	122.722222	4.026	0.0152
Treatment	11	26450.000000	2404.545455	78.890	0.0001
Error	33	1005.833333	30.479798		

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WEED CONTROL IN ENLIST SOYBEANS WITH
 DIFFERENT GPA AND SPRAY TIPS - YEAR 2
 Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
 Location: PONDER FARM Investigator: Eric P. Prostko

Randomized Complete Block (RCB) AOV For ----- Glyma Stunting % Jun-6-23 28 DA-A (Data Column 11)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	474.479167			
Replicate	3	26.562500	8.854167	0.921	0.4414
Treatment	11	130.729167	11.884470	1.236	0.3031
Error	33	317.187500	9.611742		

Randomized Complete Block (RCB) AOV For ----- Glyma Necrosis % Jun-6-23 28 DA-A (Data Column 12)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	0.000000000000			
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000
Treatment	11	0.000000000000	0.000000000000	0.000	1.0000
Error	33	0.000000000000	0.000000000000		

Randomized Complete Block (RCB) AOV For Amapa ----- Control % Jun-6-23 28 DA-A (Data Column 13)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	25514.312500			
Replicate	3	102.062500	34.020833	1.471	0.2403
Treatment	11	24649.062500	2240.823864	96.893	0.0001
Error	33	763.187500	23.126894		

Rating Unit
 % = PERCENT

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WEED CONTROL IN ENLIST SOYBEANS WITH
DIFFERENT GPA AND SPRAY TIPS - YEAR 2

Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval											
						----- Glyma Stunting % May-15-23 6 DA-A	----- Glyma Chlorosis % May-15-23 6 DA-A	----- Glyma Necrosis % May-15-23 6 DA-A	Agrass ----- Control % May-15-23 6 DA-A	Amapa ----- Control % May-15-23 6 DA-A	----- Glyma Necrosis % May-22-23 13 DA-A	Amapa ----- Control % May-22-23 13 DA-A	----- Glyma Necrosis % May-30-23 21 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code	Plot	1	2	3	4	5	6	7	8
1	NTC							101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
								212	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
								304	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
								402	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	10 GPA							102	5.0	5.0	0.0	95.0	95.0	0.0	65.0	0.0
	XR110015 NOZZLES							208	5.0	5.0	0.0	99.0	95.0	0.0	65.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		311	5.0	5.0	0.0	99.0	99.0	0.0	75.0	0.0
	AMS			2.5 % v/v		POST A		409	10.0	5.0	0.0	95.0	99.0	0.0	65.0	0.0
								Mean =	6.3	5.0	0.0	97.0	97.0	0.0	67.5	0.0
3	10 GPA							103	5.0	5.0	20.0	99.0	99.0	10.0	95.0	0.0
	AIXR110015 NOZZLES							206	5.0	5.0	20.0	99.0	99.0	10.0	65.0	0.0
	ENLIST ONE	3.8	SL	32.0 oz/a		POST A		305	10.0	5.0	15.0	95.0	99.0	10.0	65.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		404	10.0	5.0	20.0	99.0	99.0	15.0	65.0	0.0
	AMS			2.5 % v/v		POST A		Mean =	7.5	5.0	18.8	98.0	99.0	11.3	72.5	0.0
4	10 GPA							104	5.0	5.0	20.0	99.0	90.0	10.0	65.0	0.0
	TT110015 NOZZLES							203	0.0	5.0	20.0	95.0	95.0	10.0	65.0	0.0
	ENLIST ONE	3.8	SL	32.0 oz/a		POST A		306	5.0	5.0	20.0	65.0	95.0	10.0	50.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		407	5.0	5.0	20.0	50.0	85.0	10.0	50.0	0.0
	AMS			2.5 % v/v		POST A		Mean =	3.8	5.0	20.0	77.3	91.3	10.0	57.5	0.0
5	15 GPA							105	5.0	5.0	0.0	99.0	99.0	0.0	65.0	0.0
	XR11002 NOZZLES							204	10.0	5.0	0.0	99.0	99.0	5.0	50.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		312	5.0	5.0	0.0	99.0	99.0	0.0	75.0	0.0
	AMS			2.5 % v/v		POST A		403	5.0	5.0	0.0	99.0	99.0	0.0	65.0	0.0
								Mean =	6.3	5.0	0.0	99.0	99.0	1.3	63.8	0.0
6	15 GPA							106	5.0	5.0	15.0	99.0	95.0	10.0	75.0	0.0
	AIXR11002 NOZZLES							209	5.0	5.0	20.0	95.0	99.0	10.0	70.0	0.0
	ENLIST ONE	3.8	SL	32.0 oz/a		POST A		303	5.0	5.0	20.0	99.0	99.0	15.0	90.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		408	10.0	5.0	15.0	75.0	99.0	10.0	65.0	0.0
	AMS			2.5 % v/v		POST A		Mean =	6.3	5.0	17.5	92.0	98.0	11.3	75.0	0.0
7	15 GPA							107	5.0	5.0	20.0	95.0	99.0	10.0	65.0	0.0
	TT11002 NOZZLES							201	5.0	5.0	15.0	95.0	99.0	5.0	65.0	0.0
	ENLIST ONE	3.8	SL	32.0 oz/a		POST A		302	5.0	5.0	15.0	95.0	99.0	10.0	75.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		412	10.0	5.0	20.0	99.0	99.0	15.0	85.0	0.0
	AMS			2.5 % v/v		POST A		Mean =	6.3	5.0	17.5	96.0	99.0	10.0	72.5	0.0
8	20 GPA							108	10.0	5.0	0.0	95.0	99.0	0.0	50.0	0.0
	XR110025 NOZZLES							205	5.0	5.0	0.0	99.0	99.0	0.0	50.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		309	5.0	5.0	0.0	99.0	99.0	0.0	60.0	0.0
	AMS			2.5 % v/v		POST A		406	0.0	5.0	0.0	99.0	95.0	0.0	50.0	0.0
								Mean =	5.0	5.0	0.0	98.0	98.0	0.0	52.5	0.0
9	20 GPA							109	5.0	5.0	20.0	95.0	99.0	10.0	65.0	0.0
	AIXR110025 NOZZLES							211	5.0	5.0	15.0	95.0	99.0	0.0	75.0	0.0
	ENLIST ONE	3.8	SL	32.0 oz/a		POST A		307	10.0	5.0	15.0	99.0	99.0	10.0	85.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		411	5.0	5.0	15.0	95.0	99.0	10.0	75.0	0.0
	AMS			2.5 % v/v		POST A		Mean =	6.3	5.0	16.3	96.0	99.0	7.5	75.0	0.0
10	20 GPA							110	5.0	5.0	15.0	95.0	99.0	10.0	65.0	0.0
	TT110025 NOZZLES							202	5.0	5.0	15.0	95.0	95.0	10.0	65.0	0.0
	ENLIST ONE	3.8	SL	32.0 oz/a		POST A		308	5.0	5.0	15.0	95.0	99.0	10.0	75.0	0.0
	LIBERTY	2.34	SL	32.0 oz/a		POST A		405	10.0	5.0	15.0	95.0	99.0	10.0	65.0	0.0
	AMS			2.5 % v/v		POST A		Mean =	6.3	5.0	15.0	95.0	98.0	10.0	67.5	0.0

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WEED CONTROL IN ENLIST SOYBEANS WITH DIFFERENT GPA AND SPRAY TIPS - YEAR 2
 Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
 Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code								
Crop Code								
Rating Data Type								
Rating Unit								
Rating Date								
Trt-Eval Interval								
Trt Treatment	Form	Form	Rate	Grow	Appl			
No. Name	Conc	Type	Rate	Unit	Stg	Code	Plot	
11 15 GPA						111	10.0	5.0
AIXR11002 NOZZLES						210	10.0	5.0
REFLEX	2 SL		24.0 oz/a		POST A	301	10.0	5.0
CLASSIC	25 DG		0.50 oz/a		POST A	410	10.0	0.0
INDUCE			0.25 % v/v		POST A			
						Mean =	10.0	3.8
12 15 GPA						112	5.0	5.0
AIXR11002 NOZZLES						207	5.0	5.0
LIBERTY	2.34 SL		32.0 oz/a		POST A	310	10.0	5.0
EVERPREX	7.64 EC		16.0 oz/a		POST A	401	10.0	5.0
ENLIST ONE	3.8 SL		32.0 oz/a		POST A			
						Mean =	7.5	5.0

University of Georgia

WEED CONTROL IN ENLIST SOYBEANS WITH
DIFFERENT GPA AND SPRAY TIPS - YEAR 2

Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
Location: PONDER FARM Investigator: Eric P. Prostko

						----- Glyma Stunting % May-30-23 21 DA-A	Amapa ----- Control % May-30-23 21 DA-A	----- Glyma Stunting % Jun-6-23 28 DA-A	----- Glyma Necrosis % Jun-6-23 28 DA-A	Amapa ----- Control % Jun-6-23 28 DA-A			
Trt	Treatment	Form	Form	Rate	Grow	Appl							
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	9	10	11	12	13
1	NTC							101	0.0	0.0	0.0	0.0	0.0
								212	0.0	0.0	0.0	0.0	0.0
								304	0.0	0.0	0.0	0.0	0.0
								402	0.0	0.0	0.0	0.0	0.0
								Mean =	0.0	0.0	0.0	0.0	0.0
2	10 GPA							102	0.0	60.0	0.0	0.0	60.0
	XR110015 NOZZLES							208	0.0	65.0	5.0	0.0	65.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		311	0.0	65.0	0.0	0.0	70.0
	AMS			2.5	% v/v	POST A		409	5.0	60.0	5.0	0.0	65.0
								Mean =	1.3	62.5	2.5	0.0	65.0
3	10 GPA							103	0.0	70.0	0.0	0.0	65.0
	AIXR110015 NOZZLES							206	0.0	60.0	0.0	0.0	65.0
	ENLIST ONE	3.8	SL	32.0	oz/a	POST A		305	5.0	65.0	5.0	0.0	65.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		404	0.0	50.0	0.0	0.0	65.0
	AMS			2.5	% v/v	POST A							
								Mean =	1.3	61.3	1.3	0.0	65.0
4	10 GPA							104	0.0	60.0	0.0	0.0	65.0
	TT110015 NOZZLES							203	0.0	80.0	0.0	0.0	75.0
	ENLIST ONE	3.8	SL	32.0	oz/a	POST A		306	0.0	60.0	0.0	0.0	60.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		407	0.0	60.0	10.0	0.0	65.0
	AMS			2.5	% v/v	POST A							
								Mean =	0.0	65.0	2.5	0.0	66.3
5	15 GPA							105	0.0	70.0	0.0	0.0	65.0
	XR11002 NOZZLES							204	0.0	60.0	5.0	0.0	60.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		312	0.0	60.0	0.0	0.0	60.0
	AMS			2.5	% v/v	POST A		403	0.0	60.0	0.0	0.0	70.0
								Mean =	0.0	62.5	1.3	0.0	63.8
6	15 GPA							106	0.0	65.0	0.0	0.0	60.0
	AIXR11002 NOZZLES							209	5.0	80.0	0.0	0.0	70.0
	ENLIST ONE	3.8	SL	32.0	oz/a	POST A		303	0.0	75.0	0.0	0.0	80.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		408	5.0	60.0	0.0	0.0	65.0
	AMS			2.5	% v/v	POST A							
								Mean =	2.5	70.0	0.0	0.0	68.8
7	15 GPA							107	0.0	75.0	0.0	0.0	65.0
	TT11002 NOZZLES							201	0.0	80.0	5.0	0.0	75.0
	ENLIST ONE	3.8	SL	32.0	oz/a	POST A		302	5.0	65.0	5.0	0.0	65.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		412	0.0	75.0	5.0	0.0	80.0
	AMS			2.5	% v/v	POST A							
								Mean =	1.3	73.8	3.8	0.0	71.3
8	20 GPA							108	0.0	60.0	10.0	0.0	60.0
	XR110025 NOZZLES							205	0.0	60.0	10.0	0.0	60.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		309	5.0	60.0	0.0	0.0	60.0
	AMS			2.5	% v/v	POST A		406	0.0	50.0	0.0	0.0	65.0
								Mean =	1.3	57.5	5.0	0.0	61.3
9	20 GPA							109	0.0	65.0	0.0	0.0	65.0
	AIXR110025 NOZZLES							211	0.0	65.0	0.0	0.0	70.0
	ENLIST ONE	3.8	SL	32.0	oz/a	POST A		307	0.0	75.0	5.0	0.0	70.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		411	0.0	70.0	0.0	0.0	75.0
	AMS			2.5	% v/v	POST A							
								Mean =	0.0	68.8	1.3	0.0	70.0
10	20 GPA							110	0.0	70.0	0.0	0.0	65.0
	TT110025 NOZZLES							202	0.0	80.0	0.0	0.0	75.0
	ENLIST ONE	3.8	SL	32.0	oz/a	POST A		308	5.0	65.0	0.0	0.0	65.0
	LIBERTY	2.34	SL	32.0	oz/a	POST A		405	5.0	60.0	0.0	0.0	60.0
	AMS			2.5	% v/v	POST A							
								Mean =	2.5	68.8	0.0	0.0	66.3

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WEED CONTROL IN ENLIST SOYBEANS WITH
 DIFFERENT GPA AND SPRAY TIPS - YEAR 2
 Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
 Location: PONDER FARM Investigator: Eric P. Prostko

Weed Code						-----	Amapa	-----	-----	Amapa		
Crop Code						Glyma	-----	Glyma	Glyma	-----		
Rating Data Type						Stunting	Control	Stunting	Necrosis	Control		
Rating Unit						%	%	%	%	%		
Rating Date						May-30-23	May-30-23	Jun-6-23	Jun-6-23	Jun-6-23		
Trt-Eval Interval						21 DA-A	21 DA-A	28 DA-A	28 DA-A	28 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Grow Stg	Appl Code	Plot	9	10	11	12	13
11	15 GPA						111	0.0	99.0	0.0	0.0	95.0
	AIXR11002 NOZZLES						210	10.0	99.0	10.0	0.0	99.0
	REFLEX	2 SL		24.0 oz/a	POST	A	301	10.0	99.0	5.0	0.0	90.0
	CLASSIC	25 DG		0.50 oz/a	POST	A	410	10.0	95.0	0.0	0.0	95.0
	INDUCE			0.25 % v/v	POST	A						
							Mean =	7.5	98.0	3.8	0.0	94.8
12	15 GPA						112	0.0	99.0	0.0	0.0	99.0
	AIXR11002 NOZZLES						207	0.0	99.0	0.0	0.0	95.0
	LIBERTY	2.34 SL		32.0 oz/a	POST	A	310	5.0	99.0	0.0	0.0	95.0
	EVERPREX	7.64 EC		16.0 oz/a	POST	A	401	0.0	95.0	0.0	0.0	95.0
	ENLIST ONE	3.8 SL		32.0 oz/a	POST	A						
							Mean =	1.3	98.0	0.0	0.0	96.0

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WEED CONTROL IN ENLIST SOYBEANS WITH
DIFFERENT GPA AND SPRAY TIPS - YEAR 2
Trial ID: SB-04-23 Study Dir.: JOHN RICHBURG
Location: PONDER FARM Investigator: Eric P. Prostko

Rating Unit
% = PERCENT