

University of Georgia

SOYBEAN RESPONSE TO HPPD HERBICIDES - 92 DAT

Trial ID: SB-03-23 Study Dir.: NICK SHAY
 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	Grow Unit	Appl Stg Code	Amt Product to Measure	Diluent	Rep			
									1	2	3	4
1	NTC							-	101	203	305	403
2	CALLISTO	4	SC	3.0 oz/a	PRE	A	2.344 mL/mx	1497.7 mL	102	201	303	402
3	LAUDIS	3.5	SC	3.0 oz/a	PRE	A	2.344 mL/mx	1497.7 mL	103	205	301	405
4	IMPACT	2.8	SC	1.25 oz/a	PRE	A	0.9766 mL/mx	1499 mL	104	202	304	401
5	SHIELDEX	3.33	SC	1.35 oz/a	PRE	A	1.055 mL/mx	1498.9 mL	105	204	302	404

Sort Order: Replicate 1

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Trial Comments

LAST TILLAGE: 03/27/23

MAINTAINED WEED-FREE

RAINFALL TOTALS APRIL 3 TO NOVEMBER 1: 32.14" (26.19" LONG-TERM AVERAGE)

VALOR @ 2 OZ/A + PROWL H20 @ 32 OZ/A OVER WHOLE TEST AREA (03/30/23)

ROUNDUP POWERMAX3 @ 32 OZ/A (04/14/23)

LIBERTY @ 32 OZ/A (04/25/23)

ROUNDUP POWERMAX3 @ 22 OZ/A + LIBERTY @ 22 OZ/A + ZIDUA @ 2.5 OZ/A (05/25/23)

ROUNDUP POWERMAX3 @ 32 OZ/A + LIBERTY @ 32 OZ/A + DUAL MAGNUM @ 16 OZ/A (06/21/23)

ROUNDUP POWERMAX3 @ 32 OZ/A + LIBERTY @ 32 OZ/A + DUAL MAGNUM @ 16 OZ/A (07/06/23)

SIVANTO PRIME @ 10 OZ/A (08/07/23)

BORON @ 32 OZ/A + DIMILIN @ 2 OZ/A + ALTO @ 5.5 OZ/A (08/18/23)

PRIAXOR @ 8 OZ/A + ROUNDUP POWERMAX3 @ 32 OZ/A (09/05/23)

CURRENT SOYBEAN ROTATION RESTRICTIONS:

CALLISTO = 10 MONTHS

LAUDIS = 8 MONTHS

IMPACT = 9 MONTHS

SHIELDEX = 9 MONTHS

HARVEST DATE: 11/01/23

HARVEST MOISTURE: 9.8%

YIELDS ADJUSTED TO 13%

SUMMARY:

- 1) CALLISTO CAUSED SLIGHT SOYBEAN STUNTING AND CHLOROSIS BUT HAD NO EFFECT ON SOYBEAN HEIGHT OR YIELD.
- 2) LAUDIS CAUSED SLIGHT SOYBEAN STUNTING AND CHLOROSIS BUT HAD NO EFFECT ON SOYBEAN HEIGHT OR YIELD.
- 3) IMPACT CAUSED SIGNIFICANT STUNTING, CHLOROSIS, HEIGHT REDUCTIONS, AND YIELD LOSS (68%). IMPACT WAS THE MOST INJURIOUS HPPD HERBICIDE.
- 4) SHIELDEX CAUSED SIGNIFICANT STUNTING, CHLOROSIS, HEIGHT REDUCTIONS, AND YIELD LOSS (30%).

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GENERAL TRIAL INFORMATION

Study Director: NICK SHAY **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.			

Crop 1: GLYMA SOYBEAN **Variety:** ASGROW AG66XF2
Planting Date: Jul-3-23 **Planting Method:** GP-3P605NT DRILL
Rate: 140000 S/A **Depth:** 1.5 IN **Perennial Age:** _____
Row Spacing: 7.5 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. PEANUT		2022

MAINTENANCE

Field Prep./Maintenance: 1 TON/A LIME - PREPLANT
 300 LBS/A 5-15-30 - PREPLANT
 400 LBS/A 5-15-30 (08/04/23)

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

SOIL DESCRIPTION

% Sand: 92 **% OM:** 0.65 **Texture:** SAND
% Silt: 4 **pH:** 6.0 **Soil Name:** TIFTON
% Clay: 4 **CEC:** 2.5 **Fert. Level:** GOOD

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ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.	Apr-3-23		0.83	IN	RAINFALL		
2.	Apr-8-23		0.42	IN	RAINFALL		
3.	Apr-19-23		0.5	IN	SPRINKLER - LATERAL MOVE		
4.	Apr-21-23		0.3	IN	SPRINKLER - LATERAL MOVE		
5.	Apr-27-23		1.0	IN	RAINFALL		
6.	Apr-29-23		0.65	IN	RAINFALL		
7.	May-11-23		0.5	IN	SPRINKLER - LATERAL MOVE		
8.	May-12-23		2.5	IN	RAINFALL		
9.	May-20-23		0.1	IN	RAINFALL		
10.	May-22-23		0.75	IN	RAINFALL		
11.	May-23-23		0.3	IN	RAINFALL		
12.	May-30-23		0.5	IN	SPRINKLER - LATERAL MOVE		
13.	Jun-7-23		0.5	IN	SPRINKLER - LATERAL MOVE		
14.	Jun-7-23		0.5	IN	RAINFALL		
15.	Jun-12-23		0.65	IN	RAINFALL		
16.	Jun-13-23		0.6	IN	RAINFALL		
17.	Jun-14-23		2.0	IN	RAINFALL		
18.	Jun-15-23		2.2	IN	RAINFALL		

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

APPLICATION DESCRIPTION

	A
Application Date:	Apr-3-23
Time of Day:	7:05 AM
Application Method:	BROADCAST
Application Timing:	PRE
Applic. Placement:	SOIL
Air Temp., Unit:	58 F
% Relative Humidity:	84
Wind Velocity, Unit:	0 MPH
Dew Presence (Y/N):	N
Water Hardness:	--
Soil Temp., Unit:	63 F
Soil Moisture:	OPTIMUM
% Cloud Cover:	100

CROP STAGE AT EACH APPLICATION

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

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	
Stage Scale:	
Density, Unit:	

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Trial ID: SB-03-23 Study Dir.: NICK SHAY
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APPLICATION EQUIPMENT

	A
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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SOYBEAN RESPONSE TO HPPD HERBICIDES - 92 DAT

Trial ID: SB-03-23 Study Dir.: NICK SHAY
 Location: PONDER FARM Investigator: Eric P. Prostko

Crop Code				Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	GLYMA	Glyma				
Part Rated				stand	Chlorosis	Stunting	Chlorosis	Hgt1	Hgt2	Hgt3	Hgt4	Hgt5	HGT-AVG	Stand				
Rating Data Type				#/5 ft	%	%	%	In	In	In	In	In	INCHES	#/5ft				
Rating Unit				Jul-19-23	Jul-19-23	Aug-4-23	Aug-4-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-14-23				
Rating Date				1	2	3	4	5	6	7	8	9	10	11				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Code											
1	NTC							10.3 -	0.0 -	0.0 c	0.0 c	13.00 a	11.88 a	9.88 -	11.38 ab	12.00 a	11.6 a	9.3 -
2	CALLISTO	4	SC	3.0 oz/a	PRE	A		10.0 -	1.3 -	1.3 c	0.0 c	12.13 a	11.25 a	11.63 -	11.75 ab	12.13 a	11.8 a	9.3 -
3	LAUDIS	3.5	SC	3.0 oz/a	PRE	A		9.3 -	1.3 -	1.3 c	0.0 c	12.13 a	12.00 a	11.88 -	12.75 a	12.25 a	12.2 a	9.5 -
4	IMPACT	2.8	SC	1.25 oz/a	PRE	A		10.5 -	2.5 -	12.5 a	47.5 a	8.75 b	8.63 b	8.50 -	7.88 c	10.38 b	8.8 c	11.0 -
5	SHIELDEX	3.33	SC	1.35 oz/a	PRE	A		8.8 -	1.3 -	6.3 b	21.3 b	8.75 b	10.13 ab	11.00 -	10.25 b	10.25 b	10.1 b	7.3 -
LSD P=.10				2.14	3.20	4.71	7.46	2.178	1.886	3.372	1.953	1.254	1.06	2.68				
Standard Deviation				1.70	2.54	3.74	5.92	1.728	1.497	2.676	1.550	0.995	0.84	2.13				
CV				17.44	203.31	87.91	43.03	15.78	13.89	25.3	14.35	8.73	7.68	23.0				
Grand Mean				9.75	1.25	4.25	13.75	10.950	10.775	10.575	10.800	11.400	10.90	9.25				

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.
 ^Calculated from residual.

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Trial ID: SB-03-23 Study Dir.: NICK SHAY
 Location: PONDER FARM Investigator: Eric P. Prostko

Crop Code Part Rated Rating Data Type Rating Unit Rating Date	Glyma Plant, - Hgt1 IN Sep-7-23	Glyma Plant, - Hgt2 IN Sep-7-23	Glyma Plant, - Hgt3 IN Sep-7-23	Glyma Plant, - Hgt4 IN Sep-7-23	Glyma Plant, - Hgt5 IN Sep-7-23	Glyma Plant, - HGT-AVG IN Sep-7-23	GLYMA PLOT, - YIELD LBS/PLOT Nov-1-23	GLYMA PLOT, - YIELD BU/A Nov-1-23
Trt Treatment Form Form Rate Grow Appl No. Name Conc Type Rate Unit Stg Code	12	13	14	15	16	17	18	19
1 NTC	19.8 a	20.5 a	20.3 a	21.8 a	21.3 -	20.7 a	9.48 a	91 a
2 CALLISTO 4 SC 3.0 oz/a PRE A	19.0 a	19.0 a	22.3 a	19.8 a	20.0 -	20.0 a	9.63 a	93 a
3 LAUDIS 3.5 SC 3.0 oz/a PRE A	19.8 a	21.5 a	20.0 a	20.8 a	21.8 -	20.8 a	9.60 a	92 a
4 IMPACT 2.8 SC 1.25 oz/a PRE A	9.8 b	13.0 b	13.3 b	16.0 b	15.8 -	13.6 b	2.98 c	29 c
5 SHIELDDEX 3.33 SC 1.35 oz/a PRE A	18.8 a	18.8 a	20.8 a	16.8 b	18.0 -	18.6 a	6.60 b	64 b
LSD P=.10	3.01	4.02	2.61	2.93	4.51	2.28	1.015	9.8
Standard Deviation	2.39	3.19	2.07	2.33	3.58	1.81	0.805	7.8
CV	13.74	17.2	10.74	12.25	18.5	9.65	10.52	10.52
Grand Mean	17.40	18.55	19.30	19.00	19.35	18.72	7.655	73.8

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

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Trial ID:	SB-03-23	Study Dir.:	NICK SHAY		
Location:	PONDER FARM	Investigator:	Eric P. Prostko		
Randomized Complete Block (RCB) AOV For Glyma stand #/5 ft Jul-19-23 (Data Column 1)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	65.750000			
Replicate	3	22.550000	7.516667	2.599	0.1005
Treatment	4	8.500000	2.125000	0.735	0.5857
Error	12	34.700000	2.891667		
Randomized Complete Block (RCB) AOV For Glyma Chlorosis % Jul-19-23 (Data Column 2)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	143.750000			
Replicate	3	53.750000	17.916667	2.774	0.0871
Treatment	4	12.500000	3.125000	0.484	0.7475
Error	12	77.500000	6.458333		
Randomized Complete Block (RCB) AOV For Glyma Stunting % Aug-4-23 (Data Column 3)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	613.750000			
Replicate	3	13.750000	4.583333	0.328	0.8050
Treatment	4	432.500000	108.125000	7.746	0.0025
Error	12	167.500000	13.958333		
Randomized Complete Block (RCB) AOV For Glyma Chlorosis % Aug-4-23 (Data Column 4)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	7693.750000			
Replicate	3	223.750000	74.583333	2.131	0.1496
Treatment	4	7050.000000	1762.500000	50.357	0.0001
Error	12	420.000000	35.000000		
Randomized Complete Block (RCB) AOV For Glyma Hgt1 In Aug-7-23 (Data Column 5)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	103.450000			
Replicate	3	1.050000	0.350000	0.117	0.9483
Treatment	4	66.575000	16.643750	5.575	0.0090
Error	12	35.825000	2.985417		
Randomized Complete Block (RCB) AOV For Glyma Hgt2 In Aug-7-23 (Data Column 6)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	62.737500			
Replicate	3	3.937500	1.312500	0.586	0.6356
Treatment	4	31.925000	7.981250	3.564	0.0388
Error	12	26.875000	2.239583		
Randomized Complete Block (RCB) AOV For Glyma Hgt3 In Aug-7-23 (Data Column 7)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	124.137500			
Replicate	3	7.137500	2.379167	0.332	0.8023
Treatment	4	31.075000	7.768750	1.085	0.4069
Error	12	85.925000	7.160417		
Randomized Complete Block (RCB) AOV For Glyma Hgt4 In Aug-7-23 (Data Column 8)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	87.700000			
Replicate	3	3.300000	1.100000	0.458	0.7167
Treatment	4	55.575000	13.893750	5.784	0.0079
Error	12	28.825000	2.402083		
Randomized Complete Block (RCB) AOV For Glyma Hgt5 In Aug-7-23 (Data Column 9)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	30.300000			
Replicate	3	2.500000	0.833333	0.842	0.4967
Treatment	4	15.925000	3.981250	4.023	0.0270
Error	12	11.875000	0.989583		
Randomized Complete Block (RCB) AOV For GLYMA HGT-AVG INCHES Aug-7-23 (Data Column 10)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	41.780000			
Replicate	3	1.500000	0.500000	0.713	0.5626
Treatment	4	31.870000	7.967500	11.369	0.0005
Error	12	8.410000	0.700833		

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Randomized Complete Block (RCB) AOV For Glyma Stand #/5ft Aug-14-23 (Data Column 11)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	99.750000			
Replicate	3	16.950000	5.650000	1.249	0.3355
Treatment	4	28.500000	7.125000	1.575	0.2438
Error	12	54.300000	4.525000		
Randomized Complete Block (RCB) AOV For Glyma Plant Hgt1 IN Sep-7-23 (Data Column 12)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	376.800000			
Replicate	3	12.400000	4.133333	0.723	0.5574
Treatment	4	295.800000	73.950000	12.936	0.0003
Error	12	68.600000	5.716667		
Randomized Complete Block (RCB) AOV For Glyma Plant Hgt2 IN Sep-7-23 (Data Column 13)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	300.950000			
Replicate	3	4.550000	1.516667	0.149	0.9284
Treatment	4	174.200000	43.550000	4.277	0.0222
Error	12	122.200000	10.183333		
Randomized Complete Block (RCB) AOV For Glyma Plant Hgt3 IN Sep-7-23 (Data Column 14)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	252.200000			
Replicate	3	5.400000	1.800000	0.419	0.7429
Treatment	4	195.200000	48.800000	11.349	0.0005
Error	12	51.600000	4.300000		
Randomized Complete Block (RCB) AOV For Glyma Plant Hgt4 IN Sep-7-23 (Data Column 15)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	174.000000			
Replicate	3	8.000000	2.666667	0.492	0.6942
Treatment	4	101.000000	25.250000	4.662	0.0168
Error	12	65.000000	5.416667		
Randomized Complete Block (RCB) AOV For Glyma Plant Hgt5 IN Sep-7-23 (Data Column 16)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	254.550000			
Replicate	3	2.550000	0.850000	0.066	0.9767
Treatment	4	98.300000	24.575000	1.919	0.1720
Error	12	153.700000	12.808333		
Randomized Complete Block (RCB) AOV For Glyma Plant HGT-AVG IN Sep-7-23 (Data Column 17)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	185.872000			
Replicate	3	1.008000	0.336000	0.103	0.9568
Treatment	4	145.692000	36.423000	11.158	0.0005
Error	12	39.172000	3.264333		
Randomized Complete Block (RCB) AOV For GLYMA PLOT YIELD LBS/PLOT Nov-1-23 (Data Column 18)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	150.129500			
Replicate	3	6.385500	2.128500	3.284	0.0584
Treatment	4	135.967000	33.991750	52.450	0.0001
Error	12	7.777000	0.648083		
Randomized Complete Block (RCB) AOV For GLYMA PLOT YIELD BU/A Nov-1-23 (Data Column 19)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	19	13935.860455			
Replicate	3	592.737849	197.579283	3.284	0.0584
Treatment	4	12621.217938	3155.304485	52.450	0.0001
Error	12	721.904667	60.158722		
<u>Part Rated</u> Plant = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf) <u>Rating Unit</u> % = PERCENT In = INCH <u>ARM Action Codes</u> T1 = ([5]+[6]+[7]+[8]+[9])/5 T2 = ([12]+[13]+[14]+[15]+[16])/5 TY3 = 9.63460414*[18]					

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Crop Code				Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	GLYMA				
Part Rated				stand	Chlorosis	Stunting	Chlorosis	Hgt1	Hgt2	Hgt3	Hgt4	Hgt5	HGT-AVG					
Rating Data Type				#/5 ft	%	%	%	In	In	In	In	In	INCHES					
Rating Unit				Jul-19-23	Jul-19-23	Aug-4-23	Aug-4-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23					
Rating Date				Jul-19-23	Jul-19-23	Aug-4-23	Aug-4-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23	Aug-7-23					
Trt	Treatment	Form	Form	Rate	Grow	Appl												
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	1	2	3	4	5	6	7	8	9	10
1	NTC							101	10.0	0.0	0.0	0.0	14.00	12.00	13.00	12.00	12.50	12.7
								203	7.0	0.0	0.0	0.0	13.50	13.00	12.00	11.00	12.50	12.4
								305	10.0	0.0	0.0	0.0	12.00	11.00	2.50	11.00	12.00	9.7
								403	14.0	0.0	0.0	0.0	12.50	11.50	12.00	11.50	11.00	11.7
								Mean =	10.3	0.0	0.0	0.0	13.00	11.88	9.88	11.38	12.00	11.6
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	102	11.0	0.0	5.0	0.0	11.50	12.00	12.00	13.00	12.00	12.1
								201	8.0	5.0	0.0	0.0	13.00	11.50	9.50	12.50	11.50	11.6
								303	10.0	0.0	0.0	0.0	12.00	11.00	12.50	10.50	12.50	11.7
								402	11.0	0.0	0.0	0.0	12.00	10.50	12.50	11.00	12.50	11.7
								Mean =	10.0	1.3	1.3	0.0	12.13	11.25	11.63	11.75	12.13	11.8
3	LAUDIS	3.5	SC	3.0	oz/a	PRE	A	103	12.0	5.0	5.0	0.0	10.00	10.00	11.00	13.00	11.00	11.0
								205	8.0	0.0	0.0	0.0	12.00	13.00	12.00	12.50	12.00	12.3
								301	10.0	0.0	0.0	0.0	15.00	14.00	12.50	12.00	13.00	13.3
								405	7.0	0.0	0.0	0.0	11.50	11.00	12.00	13.50	13.00	12.2
								Mean =	9.3	1.3	1.3	0.0	12.13	12.00	11.88	12.75	12.25	12.2
4	IMPACT	2.8	SC	1.25	oz/a	PRE	A	104	12.0	10.0	10.0	50.0	11.00	10.00	9.00	5.50	9.50	9.0
								202	10.0	0.0	5.0	35.0	8.50	10.50	10.00	7.00	11.50	9.5
								304	10.0	0.0	20.0	65.0	7.50	6.00	9.00	8.50	10.00	8.2
								401	10.0	0.0	15.0	40.0	8.00	8.00	6.00	10.50	10.50	8.6
								Mean =	10.5	2.5	12.5	47.5	8.75	8.63	8.50	7.88	10.38	8.8
5	SHIELDEX	3.33	SC	1.35	oz/a	PRE	A	105	8.0	5.0	5.0	20.0	10.00	9.50	11.50	12.00	10.50	10.7
								204	7.0	0.0	10.0	15.0	7.00	9.50	11.00	12.00	11.50	10.2
								302	9.0	0.0	5.0	30.0	7.00	9.50	12.00	8.50	11.00	9.6
								404	11.0	0.0	5.0	20.0	11.00	12.00	9.50	8.50	8.00	9.8
								Mean =	8.8	1.3	6.3	21.3	8.75	10.13	11.00	10.25	10.25	10.1

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SOYBEAN RESPONSE TO HPPD HERBICIDES - 92 DAT

Trial ID: SB-03-23 Study Dir.: NICK SHAY
 Location: PONDER FARM Investigator: Eric P. Prostko

Crop Code				Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	Glyma	GLYMA	GLYMA					
Part Rated				Stand	Plant, -	Plant, -	Plant, -	Plant, -	Plant, -	Plant, -	PLOT, -	PLOT, -					
Rating Data Type				#/5ft	Hgt1	Hgt2	Hgt3	Hgt4	Hgt5	HGT-AVG	YIELD	YIELD					
Rating Unit				Aug-14-23	IN	IN	IN	IN	IN	IN	LBS/PLOT	BU/A					
Rating Date				Sep-7-23	Sep-7-23	Sep-7-23	Sep-7-23	Sep-7-23	Sep-7-23	Sep-7-23	Nov-1-23	Nov-1-23					
Trt	Treatment	Form	Form	Rate	Grow	Appl											
No.	Name	Conc	Type	Rate	Unit	Stg	Code	Plot	11	12	13	14	15	16	17	18	19
1	NTC							101	11.0	23.0	23.0	23.0	24.0	20.0	22.6	9.50	92
								203	4.0	17.0	20.0	22.0	22.0	25.0	21.2	9.90	95
								305	9.0	22.0	21.0	19.0	19.0	18.0	19.8	9.60	92
								403	13.0	17.0	18.0	17.0	22.0	22.0	19.2	8.90	86
								Mean =	9.3	19.8	20.5	20.3	21.8	21.3	20.7	9.48	91
2	CALLISTO	4	SC	3.0	oz/a	PRE	A	102	9.0	19.0	20.0	22.0	20.0	24.0	21.0	9.80	94
								201	10.0	18.0	17.0	20.0	17.0	17.0	17.8	9.50	92
								303	9.0	18.0	19.0	23.0	22.0	21.0	20.6	9.50	92
								402	9.0	21.0	20.0	24.0	20.0	18.0	20.6	9.70	93
								Mean =	9.3	19.0	19.0	22.3	19.8	20.0	20.0	9.63	93
3	LAUDIS	3.5	SC	3.0	oz/a	PRE	A	103	13.0	20.0	19.0	21.0	17.0	18.0	19.0	9.80	94
								205	9.0	19.0	21.0	19.0	23.0	24.0	21.2	10.40	100
								301	9.0	23.0	25.0	20.0	21.0	21.0	22.0	8.80	85
								405	7.0	17.0	21.0	20.0	22.0	24.0	20.8	9.40	91
								Mean =	9.5	19.8	21.5	20.0	20.8	21.8	20.8	9.60	92
4	IMPACT	2.8	SC	1.25	oz/a	PRE	A	104	11.0	11.0	13.0	11.0	13.0	13.0	12.2	2.40	23
								202	11.0	12.0	20.0	17.0	18.0	17.0	16.8	5.40	52
								304	11.0	8.0	7.0	12.0	14.0	13.0	10.8	1.70	16
								401	11.0	8.0	12.0	13.0	19.0	20.0	14.4	2.40	23
								Mean =	11.0	9.8	13.0	13.3	16.0	15.8	13.6	2.98	29
5	SHIELDDEX	3.33	SC	1.35	oz/a	PRE	A	105	8.0	20.0	19.0	21.0	17.0	20.0	19.4	7.50	72
								204	6.0	17.0	18.0	22.0	17.0	16.0	18.0	7.10	68
								302	6.0	17.0	18.0	20.0	17.0	22.0	18.8	4.90	47
								404	9.0	21.0	20.0	20.0	16.0	14.0	18.2	6.90	66
								Mean =	7.3	18.8	18.8	20.8	16.8	18.0	18.6	6.60	64

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SOYBEAN RESPONSE TO HPPD HERBICIDES - 92 DAT

Trial ID: SB-03-23 Study Dir.: NICK SHAY
Location: PONDER FARM Investigator: Eric P. Prostko

Part Rated

Plant = PLANT / PLANT BIOMASS (includes Shrub, Tree, Turf)

Rating Unit

% = PERCENT

In = INCH

ARM Action Codes

T1 = $([5]+[6]+[7]+[8]+[9])/5$

T2 = $([12]+[13]+[14]+[15]+[16])/5$

TY3 = $9.63460414*[18]$