University of Georgia

WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Reps: 4 Plots: 6 by 25 feet
Mix Size: 1.5 L

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Appl. Amount	Amt Product to Measure	Diluent	Rep 1	2	3	4
1	NTC									-	101	210	304	410
2	BOUNDARY	6.5	EC	29.0	oz/a	PRE	A	15 GPA	22.65 mL/mx	1477.4 mL	102	212	306	412
	INTACT			0.5	% v/v	POST	C	15 GAL/AC	7.499 mL/mx	1411.2 mL				
	CLASS ACT RIDION			1.0	% v/v	POST	C	15 GAL/AC	15.0 mL/mx					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	15 GAL/AC	44.14 mL/mx					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C	15 GAL/AC	22.19 mL/mx					
3	BROADAXE XC	7	EC	25.0	oz/a	PRE	A	15 GPA	19.53 mL/mx	1480.5 mL	103	204	301	411
	INTACT			0.5	% v/v	POST	C	15 GAL/AC	7.499 mL/mx	1411.2 mL				
	CLASS ACT RIDION			1.0	% v/v	POST	C	15 GAL/AC	15.0 mL/mx					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	15 GAL/AC	44.14 mL/mx					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C	15 GAL/AC	22.19 mL/mx					
4	PREFIX	5.27	EC	32.0	oz/a	PRE	A	15 GPA	25.0 mL/mx	1475 mL	104	203	308	404
	INTACT			0.5	% v/v	POST	C	15 GAL/AC	7.499 mL/mx	1411.2 mL				
	CLASS ACT RIDION			1.0	% v/v	POST	C	15 GAL/AC	15.0 mL/mx					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	15 GAL/AC	44.14 mL/mx					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C	15 GAL/AC	22.19 mL/mx					
5	VALOR XLT	40.3	WG	3.01	oz/a	PRE	A	15 GPA	2.254 g/mx	1497.7 mL	105	206	311	407
	INTACT			0.5	% v/v	POST	C	15 GAL/AC	7.499 mL/mx	1411.2 mL				
	CLASS ACT RIDION			1.0	% v/v	POST	C	15 GAL/AC	15.0 mL/mx					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	15 GAL/AC	44.14 mL/mx					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C	15 GAL/AC	22.19 mL/mx					
6	ZIDUA PRO	4.09	SC	4.5	oz/a	PRE	A	15 GPA	3.515 mL/mx	1496.5 mL	106	208	307	403
	INTACT			0.5	% v/v	POST	C	15 GAL/AC	7.499 mL/mx	1445.3 mL				
	CLASS ACT RIDION			1.0	% v/v	POST	C	15 GAL/AC	15.0 mL/mx					
	ENGENIA	5	EC	12.8	oz/a	POST	C	15 GAL/AC	9.999 mL/mx					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C	15 GAL/AC	22.19 mL/mx					
7	ZIDUA PRO	4.09	SC	6.0	oz/a	PRE	A	15 GPA	4.687 mL/mx	1495.3 mL	107	211	305	402
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	15 GAL/AC	12.5 mL/mx	1458.8 mL				
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	15 GAL/AC	25.0 mL/mx					
	INDUCE			0.25	% v/v	POST	C	15 GAL/AC	3.75 mL/mx					
8	ENGENIA PRO	4.54	SC	16.0	oz/a	PRE	A	15 GPA	12.5 mL/mx	1483.8 mL	108	202	312	406
	METRIBUZIN	75	DG	5.0	oz/a	PRE	A	15 GPA	3.745 g/mx					
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	15 GAL/AC	12.5 mL/mx	1458.8 mL				
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	15 GAL/AC	25.0 mL/mx					
	INDUCE			0.25	% v/v	POST	C	15 GAL/AC	3.75 mL/mx					
9	BAS872UAH	5.23	SC	16.0	oz/a	EPOST	B	15 GAL/AC	12.5 mL/mx	1458.8 mL	109	205	310	405
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST	B	15 GAL/AC	25.0 mL/mx					
	INDUCE			0.25	% v/v	EPOST	B	15 GAL/AC	3.75 mL/mx					
10	BAS872UAH	5.23	SC	16.0	oz/a	PRE	A	15 GPA	12.5 mL/mx	1487.5 mL	110	209	303	408
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	15 GAL/AC	12.5 mL/mx	1458.8 mL				
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	15 GAL/AC	25.0 mL/mx					
	INDUCE			0.25	% v/v	POST	C	15 GAL/AC	3.75 mL/mx					
11	METRIBUZIN	75	DG	5.3	oz/a	PRE	A	15 GPA	3.969 g/mx	1496.0 mL	111	207	309	401
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	15 GAL/AC	25.0 mL/mx	1456.3 mL				
	REFLEX	2	SL	24.0	oz/a	POST	C	15 GAL/AC	18.75 mL/mx					
12	NTC									-	112	201	302	409

Sort Order: Treatment

Trial Comments

BOUNDARY = METRIBUZIN (1.25 LBS/GAL) + S-MOC (5.25 LBS/GAL)
BROADAXE = SULFENTRAZONE (0.7 LBS/GAL) + S-MOC (6.3 LBS/GAL)
PREFIX = FOMESAFEN (0.95 LBS/GAL)) + S-MOC (4.34 LBS/GAL)
VALOR XLT = FLUMIOXAZIN (30%) + CHLORIMURON (10.3%)
ZIDUA PRO = SAFLUFENACIL (0.48 LBS/GAL) + PYROXASULFONE (2.28 LBS/GAL) + IMAZETHAPYR (1.33 LBS/GAL)
ENGENIA PRO = PYROXASULFONE (0.54 LBS/GAL) + DICAMBA (4.0 LBS/GAL)

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EQUUS @ 4 OZ/A + BORON @ 32 OZ/A + DIMILIN @ 2 OZ/A (JUNE 24)

AGRASS = NON-UNIFORM MIXTURE OF ANNUAL GRASSES INCLUDING TEXAS PANICUM, CRABGRASS, CROWFOOTGRASS, AND GOOSEGRASS.

SUMMARY:

1) ALL PRE TREATMENTS CAUSED SIGNIFICANT CROP INJURY EARLY IN THE SEASON (~8-14%) BUT THE SOYBEANS RECOVERED.

2) ROUNDUP + REFLEX AND TAVIUM + ROUNDUP CAUSED SIGNIFICANT BUT TEMPORARY SOYBEAN LEAF NECROSIS (20-26%).

3) ALL TREATMENTS PROVIDED EXCELLENT CONTROL OF PALMER AMARANTH AND ANNUAL GRASSES (>95%). BUT, WEED CONTROL FROM ANY XTEND/DICAMBA PROGRAM WAS NO BETTER THAN THE STANDARD RR PROGRAM OF METRIBUZIN (PRE) FB ROUNDUP + REFLEX (POST).

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GENERAL TRIAL INFORMATION

Study Director: FULMER/MCLEAN **Title:** _____
Affiliation: _____ **Postal Code:** _____

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

Trial Status: E **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.** AGRASS TX PANICUM;CRAB;GOOSE;CROW

Crop 1: GLYMA SOYBEAN **Variety:** PIONEER 55A49X **Planting Date:** May-14-19
Planting Method: MONOSEM **Rate:** 8 SEED/FT **Depth:** 1.25 IN
Perennial Age: ____ _____ **Row Spacing:** 36 IN **Seed Bed:** _____
Soil Temperature: ____ _ **Soil Moisture:** OPTIMUM **Emergence Date:** _____

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: _____
Tillage Type: CONVENTIONAL **Study Design:** RACOBL
Trial Initiation Comments: 400 LBS/A 5-15-30 PREPLANT; LUMIGEN SEED TREATMENT;
_____

Previous:	Crops	Pesticides	Year
1.	FIELD CORN/SESAME 2018		____

MAINTENANCE

Field Prep./Maintenance: _____

No.	Date	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	_____	_____	____	_____	___	_____	_____

SOIL DESCRIPTION

Texture: SAND **% OM:** 0.57 **% Sand:** 96 **% Silt:** 0 **% Clay:** 4
pH: 6.0 **CEC:** 2.4 **Soil Name:** FUQUAY **Fertility Level:** GOOD

MOISTURE CONDITIONS

On:	Date	Time	Amount	Unit	Type	Interval	Unit
1.	May-9-19	_____	0.195	IN	RAINFALL	_____	___
2.	May-10-19	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
3.	May-16-19	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
4.	May-17-19	_____	0.62	IN	RAINFALL	_____	___
5.	May-23-19	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___
6.	May-30-19	_____	0.5	IN	SPRINKLER - LATERAL MOVE	_____	___

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

APPLICATION DESCRIPTION

	A		B		C		D	E	F
Application Date:	May-15-19		May-29-19		Jun-10-19		_____	_____	_____
Time of Day:	7:20 AM		8:40 AM		8:50 AM		_____	_____	_____
Application Method:	BROADCAST		BROADCAST		BROADCAST		_____	_____	_____
Application Timing:	PRE		EPOST		POST		_____	_____	_____
Applic. Placement:	SOIL		FOLIAGE		FOLIAGE		_____	_____	_____
Air Temp., Unit:	57	F	75	F	74	F	____ _	____ _	____ _
% Relative Humidity:	89		67		97		_____	_____	_____
Wind Velocity, Unit:	0	MPH	2	MPH	0	MPH	____	____	____
Dew Presence (Y/N):	N		N		Y		_	_	_
Water Hardness:	_____		_____		_____		_____	_____	_____
Soil Temp., Unit:	68	F	83	F	76	F	____ _	____ _	____ _
Soil Moisture:	OPTIMUM		DRY		WET		_____	_____	_____
% Cloud Cover:	0		25		100		_____	_____	_____

CROP STAGE AT EACH APPLICATION

	A		B		C		D	E	F
Crop 1 Stage: GLYMA	_____		_____		_____		_____	_____	_____
Stage Scale:	_____		V2		V5-V6		_____	_____	_____
Height, Unit:	____	____	4	IN	9	IN	____	____	____

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WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Weed 1 Stage: AMAPA		1-7"	1-12"			
Stage Scale:						
Density, Unit:						
Weed 2 Stage: AGRASS		1-3"	3-6"			
Stage Scale:						
Density, Unit:						

APPLICATION EQUIPMENT

	A	B	C	D	E	F
Appl. Equipment:	BACKPACK	SAME AS A	SAME AS A			
Operating Pressure:	38					
Nozzle Type:	TTI					
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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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	----- GLYMA Injury Percent May-28-19	AMAPA Control Percent May-28-19	AGRASS Control Percent May-28-19	----- GLYMA Leaf - Spot Percent Jun-4-19	AMAPA Control Percent Jun-4-19	AGRASS Control Percent Jun-4-19	----- GLYMA Leaf - Necrosis Percent Jun-13-19
								1	2	3	4	5	6	7
1	NTC							0.0 d	0.0 b	0.0 c	0.0 b	0.0 c	0.0 d	0.0 f
2	BOUNDARY	6.5	EC	29.0	oz/a	PRE	A	11.3 b	99.0 a	97.0 a	0.0 b	98.0 a	94.8 ab	20.0 b
	INTACT			0.5	% v/v	POST	C							
	CLASS ACT RIDION			1.0	% v/v	POST	C							
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
3	BROADAXE XC	7	EC	25.0	oz/a	PRE	A	13.8 ab	99.0 a	99.0 a	0.0 b	99.0 a	86.0 bc	15.5 c
	INTACT			0.5	% v/v	POST	C							
	CLASS ACT RIDION			1.0	% v/v	POST	C							
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
4	PREFIX	5.27	EC	32.0	oz/a	PRE	A	15.0 a	99.0 a	99.0 a	0.0 b	99.0 a	97.0 a	20.0 b
	INTACT			0.5	% v/v	POST	C							
	CLASS ACT RIDION			1.0	% v/v	POST	C							
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
5	VALOR XLT	40.3	WG	3.01	oz/a	PRE	A	11.3 b	99.0 a	94.5 a	0.0 b	99.0 a	89.5 ab	20.0 b
	INTACT			0.5	% v/v	POST	C							
	CLASS ACT RIDION			1.0	% v/v	POST	C							
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
6	ZIDUA PRO	4.09	SC	4.5	oz/a	PRE	A	12.5 ab	99.0 a	95.5 a	0.0 b	99.0 a	91.3 ab	12.5 cd
	INTACT			0.5	% v/v	POST	C							
	CLASS ACT RIDION			1.0	% v/v	POST	C							
	ENGENIA	5	EC	12.8	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
7	ZIDUA PRO	4.09	SC	6.0	oz/a	PRE	A	12.5 ab	99.0 a	97.0 a	0.0 b	99.0 a	93.5 ab	7.5 e
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C							
	INDUCE			0.25	% v/v	POST	C							
8	ENGENIA PRO	4.54	SC	16.0	oz/a	PRE	A	13.8 ab	99.0 a	98.0 a	0.0 b	99.0 a	97.0 a	10.0 de
	METRIBUZIN	75	DG	5.0	oz/a	PRE	A							
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C							
	INDUCE			0.25	% v/v	POST	C							
9	BAS872UAH	5.23	SC	16.0	oz/a	EPOST	B	0.0 d	0.0 b	0.0 c	15.0 a	92.3 b	99.0 a	0.0 f
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST	B							
	INDUCE			0.25	% v/v	EPOST	B							
10	BAS872UAH	5.23	SC	16.0	oz/a	PRE	A	13.8 ab	99.0 a	98.0 a	0.0 b	99.0 a	95.5 ab	10.0 de
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C							
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C							
	INDUCE			0.25	% v/v	POST	C							
11	METRIBUZIN	75	DG	5.3	oz/a	PRE	A	7.5 c	99.0 a	84.8 b	0.0 b	97.0 a	76.3 c	26.3 a
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C							
	REFLEX	2	SL	24.0	oz/a	POST	C							
12	NTC							0.0 d	0.0 b	0.0 c	0.0 b	0.0 c	0.0 d	0.0 f
LSD P=.10								3.01	.	6.10	.	2.29	10.69	4.02
Standard Deviation								2.52	0.00	5.10	0.00	1.91	8.93	3.36
CV								27.14	0.0	7.09	0.0	2.34	11.65	28.42
Grand Mean								9.27	74.25	71.90	1.25	81.69	76.65	11.81
Bartlett's X2								2.955	0.00	22.977	0.00	4.501	26.451	7.645
P(Bartlett's X2)								0.889	.	0.001*	.	0.105	0.001*	0.177

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 2,4,10,11 because error mean square = 0.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	----- GLYMA ----- Leaf - Burn Percent Jun-18-19	AMAPA ----- Control Percent Jun-18-19	AGRASS ----- Control Percent Jun-18-19	AMAPA ----- Control Percent Jul-22-19	AGRASS ----- Control Percent Jul-22-19
	Weed Code											
	Crop Code											
	Part Rated											
	Rating Data Type											
	Rating Unit											
	Rating Date											
								8	9	10	11	12
1	NTC							0.0 f	0.0 c	0.0 b	0.0 b	0.0 c
2	BOUNDARY	6.5	EC	29.0	oz/a	PRE	A	10.0 c	99.0 a	99.0 a	99.0 a	99.0 a
	INTACT			0.5	% v/v	POST	C					
	CLASS ACT RIDION			1.0	% v/v	POST	C					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C					
3	BROADAXE XC	7	EC	25.0	oz/a	PRE	A	10.0 c	99.0 a	99.0 a	99.0 a	99.0 a
	INTACT			0.5	% v/v	POST	C					
	CLASS ACT RIDION			1.0	% v/v	POST	C					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C					
4	PREFIX	5.27	EC	32.0	oz/a	PRE	A	13.8 b	99.0 a	99.0 a	99.0 a	99.0 a
	INTACT			0.5	% v/v	POST	C					
	CLASS ACT RIDION			1.0	% v/v	POST	C					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C					
5	VALOR XLT	40.3	WG	3.01	oz/a	PRE	A	13.8 b	99.0 a	99.0 a	99.0 a	99.0 a
	INTACT			0.5	% v/v	POST	C					
	CLASS ACT RIDION			1.0	% v/v	POST	C					
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C					
6	ZIDUA PRO	4.09	SC	4.5	oz/a	PRE	A	8.8 cd	99.0 a	99.0 a	99.0 a	99.0 a
	INTACT			0.5	% v/v	POST	C					
	CLASS ACT RIDION			1.0	% v/v	POST	C					
	ENGENIA	5	EC	12.8	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C					
7	ZIDUA PRO	4.09	SC	6.0	oz/a	PRE	A	6.3 de	99.0 a	99.0 a	99.0 a	99.0 a
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C					
	INDUCE			0.25	% v/v	POST	C					
8	ENGENIA PRO	4.54	SC	16.0	oz/a	PRE	A	7.5 cde	99.0 a	99.0 a	99.0 a	99.0 a
	METRIBUZIN	75	DG	5.0	oz/a	PRE	A					
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C					
	INDUCE			0.25	% v/v	POST	C					
9	BAS872UAH	5.23	SC	16.0	oz/a	EPOST	B	1.3 f	99.0 a	99.0 a	99.0 a	98.0 b
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST	B					
	INDUCE			0.25	% v/v	EPOST	B					
10	BAS872UAH	5.23	SC	16.0	oz/a	PRE	A	5.0 e	99.0 a	99.0 a	99.0 a	99.0 a
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C					
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C					
	INDUCE			0.25	% v/v	POST	C					
11	METRIBUZIN	75	DG	5.3	oz/a	PRE	A	17.5 a	96.8 b	99.0 a	99.0 a	99.0 a
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C					
	REFLEX	2	SL	24.0	oz/a	POST	C					
12	NTC							0.0 f	0.0 c	0.0 b	0.0 b	0.0 c
	LSD P=.10							2.79	1.55	.	.	0.69
	Standard Deviation							2.33	1.30	0.00	0.00	0.58
	CV							29.87	1.58	0.0	0.0	0.7
	Grand Mean							7.81	82.31	82.50	82.50	82.42
	Bartlett's X2							2.141	0.00	0.00	0.00	0.00
	P(Bartlett's X2)							0.976	.	.	.	.

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 2,4,10,11 because error mean square = 0.

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WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Randomized Complete Block (RCB) AOV For ----- GLYMA Injury Percent May-28-19 (Data Column 1)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	1749.479167			
Replicate	3	9.895833	3.298611	0.521	0.6707
Treatment	11	1530.729167	139.157197	21.988	0.0001
Error	33	208.854167	6.328914		

Randomized Complete Block (RCB) AOV For AMAPA Control Percent May-28-19 (Data Column 2)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	88209.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	88209.000000	8019.000000	0.000	1.0000
Error	33	0.000000	0.000000		

Randomized Complete Block (RCB) AOV For AGRASS Control Percent May-28-19 (Data Column 3)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	84386.479167			
Replicate	3	196.395833	65.465278	2.517	0.0752
Treatment	11	83331.729167	7575.611742	291.249	0.0001
Error	33	858.354167	26.010732		

Randomized Complete Block (RCB) AOV For ----- GLYMA Leaf Spot Percent Jun-4-19 (Data Column 4)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	825.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	825.000000	75.000000	0.000	1.0000
Error	33	0.000000	0.000000		

Randomized Complete Block (RCB) AOV For AMAPA Control Percent Jun-4-19 (Data Column 5)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	64362.312500			
Replicate	3	18.062500	6.020833	1.646	0.1976
Treatment	11	64223.562500	5838.505682	1596.443	0.0001
Error	33	120.687500	3.657197		

Randomized Complete Block (RCB) AOV For AGRASS Control Percent Jun-4-19 (Data Column 6)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	61260.979167			
Replicate	3	584.395833	194.798611	2.442	0.0817
Treatment	11	58043.729167	5276.702652	66.138	0.0001
Error	33	2632.854167	79.783460		

Randomized Complete Block (RCB) AOV For ----- GLYMA Leaf Necrosis Percent Jun-13-19 (Data Column 7)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	3881.312500			
Replicate	3	39.729167	13.243056	1.175	0.3342
Treatment	11	3469.562500	315.414773	27.979	0.0001
Error	33	372.020833	11.273359		

Randomized Complete Block (RCB) AOV For ----- GLYMA Leaf Burn Percent Jun-18-19 (Data Column 8)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	1645.312500			
Replicate	3	64.062500	21.354167	3.922	0.0169
Treatment	11	1401.562500	127.414773	23.400	0.0001
Error	33	179.687500	5.445076		

Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent Jun-18-19 (Data Column 9)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65122.312500			
Replicate	3	5.062500	1.687500	1.000	0.4051
Treatment	11	65061.562500	5914.687500	3505.000	0.0001
Error	33	55.687500	1.687500		

Randomized Complete Block (RCB) AOV For AGRASS ----- Control Percent Jun-18-19 (Data Column 10)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65340.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	65340.000000	5940.000000	0.000	1.0000
Error	33	0.000000	0.000000		

Randomized Complete Block (RCB) AOV For AMAPA ----- Control Percent Jul-22-19 (Data Column 11)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65340.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	11	65340.000000	5940.000000	0.000	1.0000
Error	33	0.000000	0.000000		

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WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
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Randomized Complete Block (RCB) AOV For AGRASS ----- Control Percent Jul-22-19 (Data Column 12)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	47	65223.666667			
Replicate	3	1.000000	0.333333	1.000	0.4051
Treatment	11	65211.666667	5928.333333	17785.002	0.0001
Error	33	11.000000	0.333333		

Weed Code
AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.
Part Rated
Leaf = LEAF / FOLIAGE

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WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	----- GLYMA Injury Percent May-28-19	AMAPA Control Percent May-28-19	AGRASS Control Percent May-28-19	----- GLYMA Leaf - Spot Percent Jun-4-19	AMAPA Control Percent Jun-4-19	AGRASS Control Percent Jun-4-19
									1	2	3	4	5	6
1	NTC							101	0.0	0.0	0.0	0.0	0.0	0.0
								210	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
								410	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
2	BOUNDARY	6.5	EC	29.0	oz/a	PRE	A	102	10.0	99.0	95.0	0.0	95.0	90.0
	INTACT			0.5	% v/v	POST	C	212	10.0	99.0	95.0	0.0	99.0	95.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	306	10.0	99.0	99.0	0.0	99.0	95.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	412	15.0	99.0	99.0	0.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	11.3	99.0	97.0	0.0	98.0	94.8
3	BROADAXE XC	7	EC	25.0	oz/a	PRE	A	103	15.0	99.0	99.0	0.0	99.0	95.0
	INTACT			0.5	% v/v	POST	C	204	15.0	99.0	99.0	0.0	99.0	75.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	301	10.0	99.0	99.0	0.0	99.0	75.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	411	15.0	99.0	99.0	0.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	13.8	99.0	99.0	0.0	99.0	86.0
4	PREFIX	5.27	EC	32.0	oz/a	PRE	A	104	15.0	99.0	99.0	0.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	203	15.0	99.0	99.0	0.0	99.0	95.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	308	15.0	99.0	99.0	0.0	99.0	99.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	404	15.0	99.0	99.0	0.0	99.0	95.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	15.0	99.0	99.0	0.0	99.0	97.0
5	VALOR XLT	40.3	WG	3.01	oz/a	PRE	A	105	15.0	99.0	99.0	0.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	206	10.0	99.0	85.0	0.0	99.0	65.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	311	10.0	99.0	95.0	0.0	99.0	99.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	407	10.0	99.0	99.0	0.0	99.0	95.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	11.3	99.0	94.5	0.0	99.0	89.5
6	ZIDUA PRO	4.09	SC	4.5	oz/a	PRE	A	106	15.0	99.0	99.0	0.0	99.0	90.0
	INTACT			0.5	% v/v	POST	C	208	10.0	99.0	85.0	0.0	99.0	95.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	307	15.0	99.0	99.0	0.0	99.0	85.0
	ENGENIA	5	EC	12.8	oz/a	POST	C	403	10.0	99.0	99.0	0.0	99.0	95.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	12.5	99.0	95.5	0.0	99.0	91.3
7	ZIDUA PRO	4.09	SC	6.0	oz/a	PRE	A	107	15.0	99.0	95.0	0.0	99.0	95.0
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	211	10.0	99.0	99.0	0.0	99.0	95.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	305	15.0	99.0	95.0	0.0	99.0	85.0
	INDUCE			0.25	% v/v	POST	C	402	10.0	99.0	99.0	0.0	99.0	99.0
								Mean =	12.5	99.0	97.0	0.0	99.0	93.5
8	ENGENIA PRO	4.54	SC	16.0	oz/a	PRE	A	108	15.0	99.0	99.0	0.0	99.0	95.0
	METRIBUZIN	75	DG	5.0	oz/a	PRE	A	202	15.0	99.0	95.0	0.0	99.0	95.0
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	312	10.0	99.0	99.0	0.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	406	15.0	99.0	99.0	0.0	99.0	99.0
	INDUCE			0.25	% v/v	POST	C							
								Mean =	13.8	99.0	98.0	0.0	99.0	97.0
9	BAS872UAH	5.23	SC	16.0	oz/a	EPOST	B	109	0.0	0.0	0.0	15.0	85.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST	B	205	0.0	0.0	0.0	15.0	95.0	99.0
	INDUCE			0.25	% v/v	EPOST	B	310	0.0	0.0	0.0	15.0	90.0	99.0
								405	0.0	0.0	0.0	15.0	99.0	99.0
								Mean =	0.0	0.0	0.0	15.0	92.3	99.0
10	BAS872UAH	5.23	SC	16.0	oz/a	PRE	A	110	10.0	99.0	95.0	0.0	99.0	99.0
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	209	15.0	99.0	99.0	0.0	99.0	85.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	303	15.0	99.0	99.0	0.0	99.0	99.0
	INDUCE			0.25	% v/v	POST	C	408	15.0	99.0	99.0	0.0	99.0	99.0
								Mean =	13.8	99.0	98.0	0.0	99.0	95.5

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WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	----- GLYMA Injury Percent May-28-19 1	AMAPA Control Percent May-28-19 2	AGRASS Control Percent May-28-19 3	----- GLYMA Leaf - Spot Percent Jun-4-19 4	AMAPA Control Percent Jun-4-19 5	AGRASS Control Percent Jun-4-19 6
11	METRIBUZIN	75	DG	5.3	oz/a	PRE	A	111	10.0	99.0	99.0	0.0	95.0	95.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	207	10.0	99.0	65.0	0.0	99.0	50.0
	REFLEX	2	SL	24.0	oz/a	POST	C	309	10.0	99.0	95.0	0.0	99.0	95.0
								401	0.0	99.0	80.0	0.0	95.0	65.0
								Mean =	7.5	99.0	84.8	0.0	97.0	76.3
12	NTC							112	0.0	0.0	0.0	0.0	0.0	0.0
								201	0.0	0.0	0.0	0.0	0.0	0.0
								302	0.0	0.0	0.0	0.0	0.0	0.0
								409	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

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WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	----- GLYMA Leaf - Necrosis Percent Jun-13-19	----- GLYMA Leaf - Burn Percent Jun-18-19	AMAPA ----- Control Percent Jun-18-19	AGRASS ----- Control Percent Jun-18-19	AMAPA ----- Control Percent Jul-22-19	AGRASS ----- Control Percent Jul-22-19
									7	8	9	10	11	12
1	NTC							101	0.0	0.0	0.0	0.0	0.0	0.0
								210	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
								410	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
2	BOUNDARY	6.5	EC	29.0	oz/a	PRE	A	102	20.0	5.0	99.0	99.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	212	20.0	10.0	99.0	99.0	99.0	99.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	306	20.0	15.0	99.0	99.0	99.0	99.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	412	20.0	10.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	20.0	10.0	99.0	99.0	99.0	99.0
3	BROADAXE XC	7	EC	25.0	oz/a	PRE	A	103	20.0	5.0	99.0	99.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	204	20.0	10.0	99.0	99.0	99.0	99.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	301	20.0	15.0	99.0	99.0	99.0	99.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	411	2.0	10.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	15.5	10.0	99.0	99.0	99.0	99.0
4	PREFIX	5.27	EC	32.0	oz/a	PRE	A	104	20.0	10.0	99.0	99.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	203	20.0	15.0	99.0	99.0	99.0	99.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	308	20.0	15.0	99.0	99.0	99.0	99.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	404	20.0	15.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	20.0	13.8	99.0	99.0	99.0	99.0
5	VALOR XLT	40.3	WG	3.01	oz/a	PRE	A	105	20.0	10.0	99.0	99.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	206	20.0	15.0	99.0	99.0	99.0	99.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	311	20.0	15.0	99.0	99.0	99.0	99.0
	TAVIUM + VG	3.39	CS	56.5	oz/a	POST	C	407	20.0	15.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	20.0	13.8	99.0	99.0	99.0	99.0
6	ZIDUA PRO	4.09	SC	4.5	oz/a	PRE	A	106	10.0	10.0	99.0	99.0	99.0	99.0
	INTACT			0.5	% v/v	POST	C	208	15.0	10.0	99.0	99.0	99.0	99.0
	CLASS ACT RIDION			1.0	% v/v	POST	C	307	15.0	10.0	99.0	99.0	99.0	99.0
	ENGENIA	5	EC	12.8	oz/a	POST	C	403	10.0	5.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	28.4	oz/a	POST	C							
								Mean =	12.5	8.8	99.0	99.0	99.0	99.0
7	ZIDUA PRO	4.09	SC	6.0	oz/a	PRE	A	107	5.0	5.0	99.0	99.0	99.0	99.0
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	211	10.0	5.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	305	5.0	5.0	99.0	99.0	99.0	99.0
	INDUCE			0.25	% v/v	POST	C	402	10.0	10.0	99.0	99.0	99.0	99.0
								Mean =	7.5	6.3	99.0	99.0	99.0	99.0
8	ENGENIA PRO	4.54	SC	16.0	oz/a	PRE	A	108	10.0	5.0	99.0	99.0	99.0	99.0
	METRIBUZIN	75	DG	5.0	oz/a	PRE	A	202	15.0	10.0	99.0	99.0	99.0	99.0
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	312	5.0	5.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	406	10.0	10.0	99.0	99.0	99.0	99.0
	INDUCE			0.25	% v/v	POST	C							
								Mean =	10.0	7.5	99.0	99.0	99.0	99.0
9	BAS872UAH	5.23	SC	16.0	oz/a	EPOST	B	109	0.0	0.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	EPOST	B	205	0.0	0.0	99.0	99.0	99.0	95.0
	INDUCE			0.25	% v/v	EPOST	B	310	0.0	5.0	99.0	99.0	99.0	99.0
								405	0.0	0.0	99.0	99.0	99.0	99.0
								Mean =	0.0	1.3	99.0	99.0	99.0	98.0
10	BAS872UAH	5.23	SC	16.0	oz/a	PRE	A	110	5.0	5.0	99.0	99.0	99.0	99.0
	ENGENIA PRO	4.54	SC	16.0	oz/a	POST	C	209	15.0	5.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	303	10.0	5.0	99.0	99.0	99.0	99.0
	INDUCE			0.25	% v/v	POST	C	408	10.0	5.0	99.0	99.0	99.0	99.0
								Mean =	10.0	5.0	99.0	99.0	99.0	99.0

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WEED CONTROL IN XTEND SOYBEANS - I

Trial ID: SB-03-19 Study Dir.:
Location: PONDER FARM Investigator: Eric P. Prostko

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Plot	----- GLYMA Leaf - Necrosis Percent Jun-13-19	----- GLYMA Leaf - Burn Percent Jun-18-19	AMAPA ----- Control Percent Jun-18-19	AGRASS ----- Control Percent Jun-18-19	AMAPA ----- Control Percent Jul-22-19	AGRASS ----- Control Percent Jul-22-19
									7	8	9	10	11	12
11	METRIBUZIN	75	DG	5.3	oz/a	PRE	A	111	25.0	15.0	99.0	99.0	99.0	99.0
	ROUNDUP P-MAX	5.5	SL	32.0	oz/a	POST	C	207	25.0	20.0	99.0	99.0	99.0	99.0
	REFLEX	2	SL	24.0	oz/a	POST	C	309	25.0	15.0	99.0	99.0	99.0	99.0
								401	30.0	20.0	90.0	99.0	99.0	99.0
								Mean =	26.3	17.5	96.8	99.0	99.0	99.0
12	NTC							112	0.0	0.0	0.0	0.0	0.0	0.0
								201	0.0	0.0	0.0	0.0	0.0	0.0
								302	0.0	0.0	0.0	0.0	0.0	0.0
								409	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

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Weed Code
AMAPA = AMARANTH, PALMER / AMARANTHUS PALMERI S.WATS.
Part Rated
Leaf = LEAF / FOLIAGE