

Purdue Weed Science

Flumioxazin in a Liberty Link Soybean System with 30" Row Spacing
 Trial ID: 18S-TPAC-SOY-20 Location: TPAC Trial Year: 2018
 Protocol ID: 18S-TPAC-SOY-20 Investigator: Dr. Bill Johnson
 Project ID: FIERCEMD64.01 Study Director: Dustin Johnson
 Sponsor Contact: E. Ott - Valent

General Trial Information

Study Director: Dustin Johnson **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide

Trial Location

City: Lafayette **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47909

Latitude of LL Corner °: 40.29176 N
Longitude of LL Corner °: 86.91068 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Dustin Johnson **Title:** Research Associate
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** john1357@purdue.edu
Country: USA United States

Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Country: USA United States

Cooperator/Landowner

Cooperator: Jay Young **Role:** Superintendent
Organization: Purdue University
Address 1: 8343 US 231 S
City: Lafayette **Phone No.:** 765-538-3422
State/Prov: IN **Fax No.:** 765-538-3423
Postal Code: 47909
Country: USA United States **E-mail:** jayyoung@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Becks 296L4
Description: Liberty Link

Planting Date: May-8-2018
Planting Method: PLANTD planted
Planting Equipment: PP plot planter
Emergence Date: May-15-2018

Planting Rate, Unit: 120000 S/A
Depth, Unit: 1.25 IN
Row Spacing, Unit: 30 IN
Rows per Plot: 4
Soil Temperature, Unit: 67 F
Soil Moisture: DRY dry

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 2 Type: W **Code:** IPOHE Ipomoea hederacea
Common Name: ivy-leaf morning glory

Pest 3 Type: W **Code:** CHEAL Chenopodium album
Common Name: common lambsquarters

Pest 4 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: velvetleaf

Pest 5 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 6 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

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Site and Design	
Treated Plot Width: 10 FT	Site Type: FIELD field
Treated Plot Length: 30 FT	Experimental Unit: 1 PLOT plot
Treated Plot Area: 300 FT ²	Treatments: 10
Replications: 4	Tillage Type: CONTIL conventional-till
	Study Design: RACOB L Randomized Complete Block (RCB)

Soil Description	
Description Name: TPAC- Field 4B	
% OM: 2.9	Texture: SIL silt loam
pH: 6.2	Soil Name: Toronto-Millbrook
CEC: 13.3	

Application Description			
	A	B	C
Application Date:	May-8-2018	Jun-1-2018	Jun-14-2018
Appl. Start Time:	2:00 PM	12:30 PM	12:45 PM
Appl. Stop Time:	2:10 PM	12:40 PM	12:50 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROADC	BROADC	BROADC
Applied By:	T. CAMPBELL	M. ZIMMER	D. JOHNSON
Air Temperature, Unit:	81 F	81 F	77 F
% Relative Humidity:	34	73	45
Wind Velocity, Unit:	5 MPH	3 MPH	3 MPH
Wind Direction:	E	WNW	ESE
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	67 F	78 F	78 F
Soil Moisture:	DRY	VERWET	WET
% Cloud Cover:	0	50	50

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	00	12	15
Stage Minimum, Percent:	00	12	14
Stage Maximum, Percent:	00	13	16
Height, Unit:		6 IN	9 IN
Height Minimum, Maximum:		4 8	10 12

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Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	00	18	12
Stage Minimum, Percent:	00	11	11
Stage Maximum, Percent:	00	19	14
Height, Unit:		5 IN	2 IN
Height Minimum, Maximum:		0.5 11	0.25 4.5
Density, Unit:		10 FT2	8 FT2
Pest 2 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:		12	
Stage Minimum, Percent:		11	
Stage Maximum, Percent:		19	
Height, Unit:		2 IN	
Height Minimum, Maximum:		0.25 5	
Density, Unit:		2.5 FT2	
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent:		16	
Stage Minimum, Percent:		11	
Stage Maximum, Percent:		19	
Height, Unit:		2.5 IN	
Height Minimum, Maximum:		0.25 5	
Density, Unit:		3 FT2	
Pest 4 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:		14	
Stage Minimum, Percent:		11	
Stage Maximum, Percent:		16	
Height, Unit:		3 IN	
Height Minimum, Maximum:		0.5 6	
Density, Unit:		2 FT2	
Pest 5 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		14	
Stage Minimum, Percent:		11	
Stage Maximum, Percent:		19	
Height, Unit:		5 IN	
Height Minimum, Maximum:		0.5 7	
Density, Unit:		3 FT2	
Pest 6 Code, Type, Scale:	AMARE W	AMARE W	AMARE W
Stage Majority, Percent:		14	
Stage Minimum, Percent:		11	
Stage Maximum, Percent:		16	
Height, Unit:		2 IN	
Height Minimum, Maximum:		0.5 4	
Density, Unit:		2 FT2	

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Application Equipment

	A	B	C
Appl. Equipment:	CO2 BACKPACK	CO2 BACKPACK	CO2 BACKPACK
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	29 PSI	18 PSI	18 PSI
Nozzle Type:	TTI	FLAFXR	FLAFXR
Nozzle Size:	110015	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	17 IN	17 IN	17 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 L	1.8 L	1.8 L
Propellant:	COMCO2	COMCO2	COMCO2

Date By Notes

Jun-1-2018 D. JOHNSON Pop up shower occurred at 3:30pm after application.
 Jun-8-2018 D. JOHNSON Evening storm brought hail and damage to crop occurred.

Trial Comments

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Trial ID: 18S-TPAC-SOY-20 Protocol ID: 18S-TPAC-SOY-20 Project ID: FIERCEMD64.01	Flumioxazin in a Liberty Link Soybean System with 30" Row Spacing Location: TPAC Trial Year: 2018 Investigator: Dr. Bill Johnson Study Director: Dustin Johnson Sponsor Contact: E. Ott - Valent
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Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 L (total for 4 plots; minimum=1.564 L)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Growth Stage	Appl Code	Appl Description	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	UNTREATED CHECK										101	304	604	803
2	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	EPOT	B	2-3" WEEDS	30.0 mL/mx	102	403	502	805
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	EPOT	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	C	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	C	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	C	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	C	2-3" WEEDS	4.5 mL/mx				
3	FIERCE	76	%W/W	WG	3	oz wt/a	PREE	A	AT PLANTING	2.696 g/mx	103	401	505	703
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
4	BOUNDARY	6.5	LBA/GAL	EC	2	pt/a	PREE	A	AT PLANTING	30.0 mL/mx	104	405	504	804
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
5	AUTHORITY ELITE	7	LBA/GAL	SC	25	fl oz/a	PREE	A	AT PLANTING	23.44 mL/mx	105	302	602	802
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	32	% v/v	POST	B	2-3" WEEDS	575.9 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
6	ZIDUA PRO	4.09	LBA/GAL	SC	4.5	fl oz/a	PREE	A	AT PLANTING	4.219 mL/mx	201	404	601	702
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
7	FIERCE MTZ SC (2030)	2.64	LBA/GAL	SC	1	pt/a	PREE	A	AT PLANTING	15.0 mL/mx	202	303	603	705
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
8	FIERCE	76	%W/W	WG	3.75	oz wt/a	PREE	A	AT PLANTING	3.37 g/mx	203	305	503	704
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
9	AUTHORITY SUPREME	4.16	LBA/GAL	SC	7.7	fl oz/a	PREE	A	AT PLANTING	7.219 mL/mx	204	402	501	801
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				
10	V-10452	3.04	LBA/GAL	SC	6	fl oz/a	PREE	A	AT PLANTING	5.625 mL/mx	205	301	605	701
	LIBERTY 280	2.34	LBA/GAL	SL	32	fl oz/a	POST	B	2-3" WEEDS	30.0 mL/mx				
	SELECT MAX	1	LBA/GAL	EC	6	fl oz/a	POST	B	2-3" WEEDS	5.625 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5	% v/v	POST	B	2-3" WEEDS	45.0 mL/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	POST	B	2-3" WEEDS	4.5 mL/mx				

Sort Order: Treatment

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Flumioxazin in a Liberty Link Soybean System with 30" Row Spacing

Trial ID: 18S-TPAC-SOY-20 Location: TPAC Trial Year: 2018
 Protocol ID: 18S-TPAC-SOY-20 Investigator: Dr. Bill Johnson
 Project ID: FIERCEMD64.01 Study Director: Dustin Johnson
 Sponsor Contact: E. Ott - Valent

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code		AMBTR	IPHOE	CHEAL	ABUTH	SETFA			
Pest Name		Giant ragweed	ivy-leaf morri>	common lambsqu>	velvetleaf	Giant foxtail			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Rating Date	May-29-2018	May-29-2018	May-29-2018	May-29-2018	May-29-2018	May-29-2018			
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Assessed By	J. IKLEY	J. IKLEY	J. IKLEY	J. IKLEY	J. IKLEY	J. IKLEY			
Rating Timing	A1	A1	A1	A1	A1	A1			
Days After First/Last Applic.	21 21	21 21	21 21	21 21	21 21	21 21			
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A			
Days After Emergence	14 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1			
ARM Action Codes	P	P	P	P	P	P			
Number of Decimals	0	0	0	0	0	0			
Trt No.	Treatment Name	Rate	Appl Code	1*	2*	3*	4*	5*	6*
		Rate Unit							
1	UNTREATED CHECK			0 c	0 b	0 c	0 e	0.0 d	0 c
2	LIBERTY 280	32 fl oz/a	B	0 c	0 b	0 c	0 e	0.0 d	0 c
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	2.5 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						
	LIBERTY 280	32 fl oz/a	C						
	SELECT MAX	6 fl oz/a	C						
	N-PAK AMS	2.5 % v/v	C						
	ACTIVATOR 90 NIS	0.25 % v/v	C						
3	FIERCE	3 oz wt/a	A	3 b	30 a	18 abc	83 abc	82.5 ab	63 b
	LIBERTY 280	32 fl oz/a	B						
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	2.5 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						
4	BOUNDARY	2 pt/a	A	0 c	38 a	40 a	98 a	74.0 abc	94 a
	LIBERTY 280	32 fl oz/a	B						
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	2.5 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						
5	AUTHORITY ELITE	25 fl oz/a	A	1 bc	23 ab	20 abc	63 bc	34.0 cd	85 ab
	LIBERTY 280	32 fl oz/a	B						
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	32 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						
6	ZIDUA PRO	4.5 fl oz/a	A	0 c	41 a	35 ab	50 cd	45.0 bc	68 ab
	LIBERTY 280	32 fl oz/a	B						
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	2.5 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						
7	FIERCE MTZ SC (2030)	1 pt/a	A	5 a	35 a	30 ab	100 a	90.0 a	78 ab
	LIBERTY 280	32 fl oz/a	B						
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	2.5 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						
8	FIERCE	3.75 oz wt/a	A	3 b	43 a	35 ab	95 ab	80.0 ab	85 ab
	LIBERTY 280	32 fl oz/a	B						
	SELECT MAX	6 fl oz/a	B						
	N-PAK AMS	2.5 % v/v	B						
	ACTIVATOR 90 NIS	0.25 % v/v	B						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 3: >=22.7 and <=26.2) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code		AMBTR	IPOHE	CHEAL	ABUTH	SETFA		
Pest Name		Giant ragweed	ivy-leaf morni>	common lambsqu>	velvetleaf	Giant foxtail		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	May-29-2018	May-29-2018	May-29-2018	May-29-2018	May-29-2018	May-29-2018		
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	J. IKLEY	J. IKLEY	J. IKLEY	J. IKLEY	J. IKLEY	J. IKLEY		
Rating Timing	A1	A1	A1	A1	A1	A1		
Days After First/Last Applic.	21 21	21 21	21 21	21 21	21 21	21 21		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A		
Days After Emergence	14 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl	1*	2*	3*	4*	5*	6*
No. Name	Rate Unit	Code						
9 AUTHORITY SUPREME	7.7 fl oz/a	A	1 bc	20 ab	14 bc	25 de	27.3 cd	69 ab
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
10 V-10452	6 fl oz/a	A	5 a	40 a	24 ab	97 ab	89.2 ab	86 ab
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
LSD P=.05	2.4		26.3	22.7	33.7	42.14	30.4	
Standard Deviation	1.7		18.2	15.6	23.2	28.81	20.9	
CV	95.24		67.56	76.28	38.8	55.76	33.65	
Levene's F	3.556		1.687	1.748	1.636	0.575	0.881	
Levene's Prob(F)	0.004*		0.136	0.126	0.152	0.805	0.553	
Skewness	0.6537		0.3172	0.8523*	-0.4012	-0.0983	-0.8674*	
Kurtosis	-1.6582*		-1.2422	0.7849	-1.7059*	-1.828*	-0.9753	
Replicate F	1.500		5.097	2.494	1.316	0.757	0.719	
Replicate Prob(F)	0.2370		0.0063	0.0841	0.2905	0.5299	0.5494	
Treatment F	5.600		3.131	3.046	11.664	5.773	10.750	
Treatment Prob(F)	0.0002		0.0103	0.0141	0.0001	0.0003	0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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

Due to missing data, larger LSD values (col. 3: >=22.7 and <=26.2) are used for mean comparisons of treatment pairs with missing data.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

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Pest Type Pest Code Pest Name	W Weed AMARE Redroot pigweed	W Weed GLXMA Soybean	W Weed AMBTR Giant ragweed	W Weed IPOHE ivy-leaf morni>	W Weed CHEAL common lambsqu>	W Weed ABUTH velvetleaf			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Rating Date	May-29-2018	Jun-5-2018	Jun-5-2018	Jun-5-2018	Jun-5-2018	Jun-5-2018			
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Assessed By	J. IKLEY	M. ZIMMER	M. ZIMMER	M. ZIMMER	M. ZIMMER	M. ZIMMER			
Rating Timing	A1	A2	A2	A2	A2	A2			
Days After First/Last Applic.	21 21	28 4	28 4	28 4	28 4	28 4			
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A			
Days After Emergence	14 DE-1	21 DE-1	21 DE-1	21 DE-1	21 DE-1	21 DE-1			
ARM Action Codes	P	P	P	P	P	P			
Number of Decimals	0	0	0	0	0	0			
Trt No.	Treatment Name	Rate	Appl Code	7*	8*	9*	10*	11*	12*
1	UNTREATED CHECK			0 b	0 -	0 e	0 c	0 d	0 c
2	LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	32 fl oz/a B 6 fl oz/a B 2.5 % v/v B 0.25 % v/v B 32 fl oz/a C 6 fl oz/a C 2.5 % v/v C 0.25 % v/v C	B B B B C C C C	0 b	0 -	87 d	88 b	95 bc	93 ab
3	FIERCE LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	3 oz wt/a A 32 fl oz/a B 6 fl oz/a B 2.5 % v/v B 0.25 % v/v B	A B B B B	100 a	0 -	88 bcd	92 ab	100 a	98 ab
4	BOUNDARY LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	2 pt/a A 32 fl oz/a B 6 fl oz/a B 2.5 % v/v B 0.25 % v/v B	A B B B B	100 a	0 -	89 bcd	94 ab	94 c	98 ab
5	AUTHORITY ELITE LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	25 fl oz/a A 32 fl oz/a B 6 fl oz/a B 32 % v/v B 0.25 % v/v B	A B B B B	98 a	0 -	87 cd	93 ab	100 a	95 ab
6	ZIDUA PRO LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	4.5 fl oz/a A 32 fl oz/a B 6 fl oz/a B 2.5 % v/v B 0.25 % v/v B	A B B B B	95 a	0 -	89 a-d	95 ab	99 ab	100 a
7	FIERCE MTZ SC (2030) LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	1 pt/a A 32 fl oz/a B 6 fl oz/a B 2.5 % v/v B 0.25 % v/v B	A B B B B	100 a	0 -	92 a	99 a	100 a	100 a
8	FIERCE LIBERTY 280 SELECT MAX N-PAK AMS ACTIVATOR 90 NIS	3.75 oz wt/a A 32 fl oz/a B 6 fl oz/a B 2.5 % v/v B 0.25 % v/v B	A B B B B	100 a	0 -	91 ab	97 a	100 a	100 a

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 3: >=22.7 and <=26.2) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	AMARE	AMBTR	IPHOE	CHEAL	ABUTH			
Pest Name	Redroot pigweed	Giant ragweed	ivy-leaf morni>	common lambsqu>	velvetleaf			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Rating Date	May-29-2018	Jun-5-2018	Jun-5-2018	Jun-5-2018	Jun-5-2018			
Rating Type	CONTROL	PHYGEN	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Assessed By	J. IKLEY	M. ZIMMER	M. ZIMMER	M. ZIMMER	M. ZIMMER			
Rating Timing	A1	A2	A2	A2	A2			
Days After First/Last Applic.	21 21	28 4	28 4	28 4	28 4			
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A			
Days After Emergence	14 DE-1	21 DE-1	21 DE-1	21 DE-1	21 DE-1			
ARM Action Codes	P	P	P	P	P			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate	Appl Code	7*	8*	9*	10*	11*	12*
9 AUTHORITY SUPREME	7.7 fl oz/a	A	100 a	0 -	89 bcd	94 ab	100 a	91 b
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
10 V-10452	6 fl oz/a	A	100 a	0 -	90 abc	97 a	99 ab	99 ab
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
LSD P=.05	5.3	.			3.3	7.7	4.9	8.3
Standard Deviation	3.7	0.0			2.3	5.3	3.4	5.7
CV	4.64	0.0			2.87	6.23	3.82	6.58
Levene's F	0.876	0.00			1.241	1.94	4.905	0.714
Levene's Prob(F)	0.557	.			0.308	0.084	0.001*	0.692
Skewness	-1.4938*	.			-2.7212*	-2.5626*	-2.6982*	-2.6075*
Kurtosis	0.2774	.			5.8091*	5.206*	5.7059*	5.3432*
Replicate F	0.708	0.000			2.521	4.232	1.364	0.228
Replicate Prob(F)	0.5558	1.0000			0.0790	0.0142	0.2750	0.8764
Treatment F	520.508	0.000			602.519	128.786	340.297	115.230
Treatment Prob(F)	0.0001	1.0000			0.0001	0.0001	0.0001	0.0001

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 Due to missing data, larger LSD values (col. 3: >=22.7 and <=26.2) are used for mean comparisons of treatment pairs with missing data.
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Purdue Weed Science

Trt No.	Treatment Name	Rate	Unit	Appl Code	13*	14*	15*	16*	17*	18*
1	UNTREATED CHECK				0 c	0 b	0 -	0 f	0 c	0 c
2	LIBERTY 280	32 fl oz/a	B		90 b	100 a	0 -	98 a	100 a	100 a
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	2.5 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							
	LIBERTY 280	32 fl oz/a	C							
	SELECT MAX	6 fl oz/a	C							
	N-PAK AMS	2.5 % v/v	C							
	ACTIVATOR 90 NIS	0.25 % v/v	C							
3	FIERCE	3 oz wt/a	A		94 ab	100 a	0 -	90 bc	100 a	100 a
	LIBERTY 280	32 fl oz/a	B							
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	2.5 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							
4	BOUNDARY	2 pt/a	A		100 a	100 a	0 -	83 e	93 b	99 b
	LIBERTY 280	32 fl oz/a	B							
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	2.5 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							
5	AUTHORITY ELITE	25 fl oz/a	A		100 a	100 a	0 -	86 cde	99 ab	100 a
	LIBERTY 280	32 fl oz/a	B							
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	32 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							
6	ZIDUA PRO	4.5 fl oz/a	A		98 a	100 a	0 -	86 cde	100 a	100 a
	LIBERTY 280	32 fl oz/a	B							
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	2.5 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							
7	FIERCE MTZ SC (2030)	1 pt/a	A		100 a	100 a	0 -	89 bcd	100 a	100 a
	LIBERTY 280	32 fl oz/a	B							
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	2.5 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							
8	FIERCE	3.75 oz wt/a	A		100 a	100 a	0 -	91 b	100 a	100 a
	LIBERTY 280	32 fl oz/a	B							
	SELECT MAX	6 fl oz/a	B							
	N-PAK AMS	2.5 % v/v	B							
	ACTIVATOR 90 NIS	0.25 % v/v	B							

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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* Adjusted means

Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	SETFA	AMARE		AMBTR	IPOHE			
Pest Name	Giant foxtail	Redroot pigweed		Giant ragweed	ivy-leaf morni>			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Rating Date	Jun-5-2018	Jun-5-2018	Jun-18-2018	Jun-18-2018	Jun-18-2018			
Rating Type	CONTROL	CONTROL	PHYGEN	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Assessed By	M. ZIMMER	M. ZIMMER	D. JOHNSON	D. JOHNSON	D. JOHNSON			
Rating Timing	A2	A2	A3	A3	A3			
Days After First/Last Applic.	28 4	28 4	41 4	41 4	41 4			
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A			
Days After Emergence	21 DE-1	21 DE-1	34 DE-1	34 DE-1	34 DE-1			
ARM Action Codes	P	P	P	P	P			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate	Appl Code	13*	14*	15*	16*	17*	18*
9 AUTHORITY SUPREME	7.7 fl oz/a	A	96 ab	100 a	0 -	85 de	100 a	100 a
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
10 V-10452	6 fl oz/a	A	98 a	100 a	0 -	88 bcd	100 a	100 a
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
LSD P=.05	7.6	.				4.3	6.9	1.1
Standard Deviation	5.2	0.0			0.0	2.9	4.7	0.8
CV	6.0	0.0			0.0	3.7	5.3	0.88
Levene's F	1.071	0.00			0.00	1.708	0.964	1.00
Levene's Prob(F)	0.411	.			.	0.131	0.488	0.461
Skewness	-2.6181*	-2.7717*			.	-2.6199*	-2.6681*	-2.7683*
Kurtosis	5.3649*	5.9791*			.	5.4722*	5.5398*	5.967*
Replicate F	0.964	0.000			0.000	1.536	1.374	1.000
Replicate Prob(F)	0.4239	1.0000			1.0000	0.2279	0.2719	0.4079
Treatment F	138.827	0.000			0.000	367.829	176.950	6383.223
Treatment Prob(F)	0.0001	1.0000			1.0000	0.0001	0.0001	0.0001

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Purdue Weed Science

Pest Type Pest Code Pest Name	W Weed ABUTH velvetleaf	W Weed SETFA Giant foxtail	W Weed AMARE Redroot pigweed	W Weed AMBTR Giant ragweed	W Weed IPOHE ivy-leaf morri>	W Weed CHEAL common lambsqu>		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-18-2018	Jun-18-2018	Jun-18-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018		
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A3	A3	A3	A4	A4	A4		
Days After First/Last Applic.	41 4	41 4	41 4	55 18	55 18	55 18		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A		
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	48 DE-1	48 DE-1	48 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	19*	20*	21*	22*	23*	24*
1 UNTREATED CHECK			0 c	0 b	0 b	0 d	0 d	0 c
2 LIBERTY 280	32 fl oz/a B		100 a	100 a	100 a	91 a	100 a	100 a
SELECT MAX	6 fl oz/a B							
N-PAK AMS	2.5 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							
LIBERTY 280	32 fl oz/a C							
SELECT MAX	6 fl oz/a C							
N-PAK AMS	2.5 % v/v C							
ACTIVATOR 90 NIS	0.25 % v/v C							
3 FIERCE	3 oz wt/a A		100 a	100 a	100 a	51 bc	88 c	100 a
LIBERTY 280	32 fl oz/a B							
SELECT MAX	6 fl oz/a B							
N-PAK AMS	2.5 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							
4 BOUNDARY	2 pt/a A		99 b	100 a	100 a	48 c	89 c	94 b
LIBERTY 280	32 fl oz/a B							
SELECT MAX	6 fl oz/a B							
N-PAK AMS	2.5 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							
5 AUTHORITY ELITE	25 fl oz/a A		100 a	100 a	100 a	46 c	90 bc	100 a
LIBERTY 280	32 fl oz/a B							
SELECT MAX	6 fl oz/a B							
N-PAK AMS	32 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							
6 ZIDUA PRO	4.5 fl oz/a A		100 a	100 a	100 a	46 c	94 abc	99 a
LIBERTY 280	32 fl oz/a B							
SELECT MAX	6 fl oz/a B							
N-PAK AMS	2.5 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							
7 FIERCE MTZ SC (2030)	1 pt/a A		100 a	100 a	100 a	53 bc	99 ab	100 a
LIBERTY 280	32 fl oz/a B							
SELECT MAX	6 fl oz/a B							
N-PAK AMS	2.5 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							
8 FIERCE	3.75 oz wt/a A		100 a	100 a	100 a	60 b	97 abc	100 a
LIBERTY 280	32 fl oz/a B							
SELECT MAX	6 fl oz/a B							
N-PAK AMS	2.5 % v/v B							
ACTIVATOR 90 NIS	0.25 % v/v B							

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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* Adjusted means

Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	ABUTH	SETFA	AMARE	AMBTR	IPOHE	CHEAL		
Pest Name	velvetleaf	Giant foxtail	Redroot pigweed	Giant ragweed	ivy-leaf morri>	common lambsqu>		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-18-2018	Jun-18-2018	Jun-18-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018		
Rating Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A3	A3	A3	A4	A4	A4		
Days After First/Last Applic.	41 4	41 4	41 4	55 18	55 18	55 18		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A		
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	48 DE-1	48 DE-1	48 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	19*	20*	21*	22*	23*	24*
9 AUTHORITY SUPREME	7.7 fl oz/a	A	100 a	100 a	100 a	49 c	94 abc	100 a
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
10 V-10452	6 fl oz/a	A	100 a	100 a	100 a	49 c	92 abc	99 a
LIBERTY 280	32 fl oz/a	B						
SELECT MAX	6 fl oz/a	B						
N-PAK AMS	2.5 % v/v	B						
ACTIVATOR 90 NIS	0.25 % v/v	B						
LSD P=.05	1.1	.				10.5	9.3	3.8
Standard Deviation	0.8	0.0			0.0	7.2	6.4	2.6
CV	0.88	0.0			0.0	14.64	7.6	2.97
Levene's F	1.00	0.00			0.00	3.342	1.961	8.185
Levene's Prob(F)	0.461	.			.	0.006*	0.081	0.001*
Skewness	-2.7683*	-2.7717*			-2.7717*	-0.4517	-2.4665*	-2.7257*
Kurtosis	5.967*	5.9791*			5.9791*	1.2729	4.8294*	5.8072*
Replicate F	1.000	0.000			0.000	2.697	4.351	0.802
Replicate Prob(F)	0.4079	1.0000			1.0000	0.0657	0.0126	0.5037
Treatment F	6383.223	0.000			0.000	36.834	87.093	561.396
Treatment Prob(F)	0.0001	1.0000			1.0000	0.0001	0.0001	0.0001

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 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Pest Type	W Weed	W Weed	W Weed
Pest Code	ABUTH	SETFA	AMARE
Pest Name	velvetleaf	Giant foxtail	Redroot pigweed
Crop Code	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -
Rating Date	Jul-2-2018	Jul-2-2018	Jul-2-2018
Rating Type	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A4	A4	A4
Days After First/Last Applic.	55 18	55 18	55 18
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A
Days After Emergence	48 DE-1	48 DE-1	48 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0
Trt No.	Treatment Name	Rate	Appl Code
		Rate Unit	
1	UNTREATED CHECK		
		0 d	0 c
			0 b
2	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	2.5 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B
	LIBERTY 280	32 fl oz/a	C
	SELECT MAX	6 fl oz/a	C
	N-PAK AMS	2.5 % v/v	C
	ACTIVATOR 90 NIS	0.25 % v/v	C
3	FIERCE	3 oz wt/a	A
	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	2.5 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B
4	BOUNDARY	2 pt/a	A
	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	2.5 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B
5	AUTHORITY ELITE	25 fl oz/a	A
	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	32 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B
6	ZIDUA PRO	4.5 fl oz/a	A
	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	2.5 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B
7	FIERCE MTZ SC (2030)	1 pt/a	A
	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	2.5 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B
8	FIERCE	3.75 oz wt/a	A
	LIBERTY 280	32 fl oz/a	B
	SELECT MAX	6 fl oz/a	B
	N-PAK AMS	2.5 % v/v	B
	ACTIVATOR 90 NIS	0.25 % v/v	B

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* Adjusted means

Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Pest Type	W Weed	W Weed	W Weed
Pest Code	ABUTH	SETFA	AMARE
Pest Name	velvetleaf	Giant foxtail	Redroot pigweed
Crop Code	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -
Rating Date	Jul-2-2018	Jul-2-2018	Jul-2-2018
Rating Type	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A4	A4	A4
Days After First/Last Applic.	55 18	55 18	55 18
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A
Days After Emergence	48 DE-1	48 DE-1	48 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			25*
9 AUTHORITY SUPREME	7.7 fl oz/a	A	91 c
LIBERTY 280	32 fl oz/a	B	
SELECT MAX	6 fl oz/a	B	
N-PAK AMS	2.5 % v/v	B	
ACTIVATOR 90 NIS	0.25 % v/v	B	
10 V-10452	6 fl oz/a	A	99 ab
LIBERTY 280	32 fl oz/a	B	
SELECT MAX	6 fl oz/a	B	
N-PAK AMS	2.5 % v/v	B	
ACTIVATOR 90 NIS	0.25 % v/v	B	
LSD P=.05	3.9	5.0	.
Standard Deviation	2.7	3.4	0.0
CV	3.03	3.91	0.0
Levene's F	0.745	1.248	0.00
Levene's Prob(F)	0.666	0.305	.
Skewness	-2.697*	-2.7094*	-2.7717*
Kurtosis	5.7136*	5.7427*	5.9791*
Replicate F	2.104	0.333	0.000
Replicate Prob(F)	0.1232	0.8015	1.0000
Treatment F	540.818	325.017	0.000
Treatment Prob(F)	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)

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

Due to missing data, larger LSD values (col. 3: >=22.7 and <=26.2) are used for mean comparisons of treatment pairs with missing data.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 8,14,15,20,21,27 because error mean square = 0.

Purdue Weed Science

Flumioxazin in a Liberty Link Soybean System with 30" Row Spacing

Trial ID: 18S-TPAC-SOY-20 Location: TPAC Trial Year: 2018
Protocol ID: 18S-TPAC-SOY-20 Investigator: Dr. Bill Johnson
Project ID: FIERCEMD64.01 Study Director: Dustin Johnson
Sponsor Contact: E. Ott - Valent

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US
IPOHE, Ipomoea hederacea, ivy-leaf morning glory = US
CHEAL, Chenopodium album, common lambsquarters = US
ABUTH, Abutilon theophrasti, velvetleaf = US
SETFA, Setaria faberi, Giant foxtail = US
AMARE, Amaranthus retroflexus, Redroot pigweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule
A2 = 2nd Assessment According to trial Schedule
A3 = 3rd Assessment According to Trial Schedule
A4 = 4th Assessment According to Trial Schedule

ARM Action Codes

P = Rating scale of 0 to 100 (e.g. % control or injury)