

Purdue Weed Science

Soybean Herbicide Showcase

Trial ID: 19S-MGS-SOY-12	Location: Meigs	Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson	
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer	
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva	

General Trial Information

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

Discipline: H herbicide
Trial Status: E established

ARM Trial Created On: Apr-23-2019
Initiation Date: May-16-2019

Trial Location

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

Latitude of LL Corner °: 40.27122 N
Longitude of LL Corner °: -86.8815 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Role: STYDIR
Study Director: Dustin Johnson & Marcelo Zimmer **Title:** Research Associate
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA United States **E-mail:** john1357@purdue.edu
City: West Lafayette, IN **Postal Code:** 47907

Role: INVEST
Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA United States **E-mail:** wgj@purdue.edu
City: West Lafayette, IN **Postal Code:** 47907

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

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Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson	
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Crop Description

Crop 1: C	GLXMA Glycine max	Soybean	BBCH Scale: BSOY
Entry Date:	May-20-2019	Stage Scale:	BBCH
Variety:	XTEND AG30X8	Planting Rate:	150000 S/A
Attributes:	DICAMBA/RR	Planting Method:	PLANTD planted
Planting Date:	May-16-2019	Planting Equipment:	PP plot planter
Depth:	1.75 IN	Soil Moisture:	SLIWET slightly wet, moist
Rows per Plot:	4	Harvested Width:	5 FT
Row Spacing:	30 IN	Harvested Length:	20 FT
Soil Temperature:	72 F		
Emergence Date:	May-27-2019		
% Standard Moisture:	13		

Pest Description

Pest 1 Type: W	Code: AMATA	Amaranthus tamariscinus	Entry Date: Jun-14-2019
Common Name:	Common waterhemp		Stage Scale: BBCH
Pest 2 Type: W	Code: SETFA	Setaria faberi	Entry Date: Jun-14-2019
Common Name:	Giant foxtail		Stage Scale: BBCH
Pest 3 Type: W	Code: AMBTR	Ambrosia trifida	Entry Date: Jun-27-2019
Common Name:	Giant ragweed		Stage Scale: BBCH
Pest 4 Type: W	Code: ABUTH	Abutilon theophrasti	Entry Date: Jun-27-2019
Common Name:	velvetleaf		Stage Scale: BBCH

Site and Design

Treated Plot Width:	6.67 FT	Site Type:	FIELD field
Treated Plot Length:	25 FT	Experimental Unit:	1 PLOT plot
Treated Plot Area:	166.75 FT ²	Tillage Type:	NOTILL no-till
Treatments:	15	Study Design:	RACOBL Randomized Co
Replications:	4		

Soil Description

Description Name:	MGS-S3		
% Sand:	40.7	% OM:	2.3
% Silt:	38.6	pH:	6.62
% Clay:	20.7	Soil Name:	Starks-Fincastle complex
		Texture:	L loam
		Fert. Level:	G good
		CEC:	8.5

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Application Description

	A	B	C
Application Date	May-16-2019	Jun-11-2019	Jun-26-2019
Appl. Start Time	2:55 PM	11:45 AM	2:15 PM
Appl. Stop Time	3:20 PM	11:50 AM	3:00 PM
Interval to Prev. Appl.		26 DAYS	15 DAYS
Application Method	SPRAY	SPRAY	SPRAY
Application Timing		POSPOS	POSPOS
Application Placement	BROADC	BROADC	BROADC
Applied By	J. HAARMANN	J. HAARMANN	L. MAIA
Appl. Entry Date	May-20-2019	Jun-14-2019	Jun-27-2019
Air Temperature Start, Stop	77 C	76	88 F
% Relative Humidity Start, Stop	55	35	50
Wind Velocity+Dir. Start	3.5 MPH S	3 MPH SW	3 MPH SW
Soil Temperature	75 F	75 F	88 F
Soil Moisture	SLIWET	DRY	DRY
% Cloud Cover	90	40	20

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA BSOY	BSOY	BSOY
Days after Emergence	-11	15	30
Stage Scale Used	BBCH	BBCH	BBCH
Stage Majority, Percent	00	11	14
Stage Minimum, Percent	00	10	14
Stage Maximum, Percent	00	11	15
Diameter Average	0 IN	0 IN	0 IN
Height Average	0 IN	3.5 IN	8 IN
Height Minimum, Maximum	0 0	3 4	6 10

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Pest Stage At Each Application

	A		B		C	
Pest 1 Code, Type, Scale	AMATA W					
Stage Majority, Percent	00		15		19	
Stage Minimum, Percent	00		10		10	
Stage Maximum, Percent	00		19		19	
Diameter Average	00	IN	00	IN	00	IN
Height Average	00	IN	2	IN	3	IN
Height Minimum, Maximum	00	00	0	5	0	7
Density Average	00	FT2	20	FT2	6	FT2
Density Minimum, Maximum	00	00	10	30	0	18
Stage Majority, Percent	00		14		15	
Stage Minimum, Percent	00		10		10	
Stage Maximum, Percent	00		15		19	
Diameter Average	00	IN	00	IN	0	IN
Height Average	00	IN	4	IN	6	IN
Height Minimum, Maximum	00	00	0	6	0.25	8
Density Average	00	FT2	4	FT2	3	FT2
Density Minimum, Maximum	00	00	0	20	0	15
Stage Majority, Percent	00		00		16	
Stage Minimum, Percent	00		00		10	
Stage Maximum, Percent	00		00		19	
Diameter Average	00	IN	00	IN	0	IN
Height Average	00	IN	00	IN	8	IN
Height Minimum, Maximum	00	00	00	00	0	12
Density Average	00	FT2	00	FT2	2	FT2
Density Minimum, Maximum	00	00	00	00	0	8
Stage Majority, Percent	00		00		16	
Stage Minimum, Percent	00		00		10	
Stage Maximum, Percent	00		00		18	
Diameter Average	00	IN	00	IN	0	IN
Height Average	00	IN	00	IN	8	IN
Height Minimum, Maximum	00	00	00	00	0	10
Density Average	00	FT2	00	FT2	2	FT2
Density Minimum, Maximum	00	00	00	00	0	6

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 Project ID: Showcase Study Director: Dustin Johnson & Marcelo Zimmer
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Application Equipment

	A	B	C
Appl. Equipment	CO2 BACKPACK	CO2 BACKPACK	CO2 BACKPACK
Equipment Type	BACSPR	BACSPR	BACSPR
Operation Pressure	27 PSI	27 PSI	44 PSI
Nozzle Type	FLAFXR	FLAFXR	TTI
Nozzle Size	XR8002	XR8002	110015
Nozzle Spacing	20 IN	20 IN	20 IN
Nozzles/Row	4	4	4
Boom Length	6.67 FT	6.67 FT	6.7 FT
Boom Height	17 IN	17 IN	17 IN
Ground Speed	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size	946 mL	946 mL	946 mL
Propellant	COMCO2	COMCO2	COMCO2

Context	Date	By	Notes
STATUS	Apr-23-2019	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-20-2019	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.
MAINT	May-5-2019	Dustin Johnson	Burndown 32 oz of Roundup Power Max, 1 pt of 2,4-D Shredder LV-4 (ester formulation), and 8.5 lbs/100 gal Dry AMS @ 15 gpa, 10 mph @ 40 psi with Wilger SR11008 nozzles using PWM on a UTV with a 30 ft boom with 20" spacing.
WEATH	May-16-2019	Dustin Johnson	Shortly after PRE "A" application a storm came through dropping approx. .3" of rain that was unexpected.

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Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer			
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				

Reps: 4

Plots: 6.67 by 25 feet

Appl. Amount: 15 GAL/AC

Mix Size: 946 mL (total for 4 plots; minimum=869.4 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Appl Amount Unit	Mix Amount Unit	Mix Size Unit	Amt to Measure	Product to Measure
1	UNTREATED CHECK									
2	BOUNDARY	6.5 LB/GAL		EC	1.8 pt/a	15 GAL/AC	946 mL		14.19 mL/mx	
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a	15 GAL/AC	946 mL		27.59 mL/mx	
	DUAL II MAGNUM	7.64 LB/GAL		EC	1.25 pt/a	15 GAL/AC	946 mL		9.854 mL/mx	
	MSO	100 %		SL	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	
	N-PAK AMS	3.4 LBA/GAL		L	2.5 % v/v	15 GAL/AC	946 mL		23.65 mL/mx	
3	BOUNDARY	6.5 LB/GAL		EC	1.8 pt/a	15 GAL/AC	946 mL		14.19 mL/mx	
	TAVIUM	3.39 LB/GAL		CS	56.5 fl oz/a	15 GAL/AC	946 mL		27.84 mL/mx	
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	26 fl oz/a	15 GAL/AC	946 mL		12.81 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL		4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	
4	PREFIX	5.29 LB/GAL		EC	2 pt/a	15 GAL/AC	946 mL		15.77 mL/mx	
	TRICOR 75 DF	75 %		DF	6 oz/a	15 GAL/AC	946 mL		2.834 g/mx	
	TAVIUM	3.39 LB/GAL		CS	56.5 fl oz/a	15 GAL/AC	946 mL		27.84 mL/mx	
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	26 fl oz/a	15 GAL/AC	946 mL		12.81 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL		4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	
5	BROADAXE XC	7 LB/GAL		L	25 fl oz/a	15 GAL/AC	946 mL		12.32 mL/mx	
	TRICOR 75 DF	75 %		DF	6 oz/a	15 GAL/AC	946 mL		2.834 g/mx	
	TAVIUM	3.39 LB/GAL		CS	56.5 fl oz/a	15 GAL/AC	946 mL		27.84 mL/mx	
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	26 fl oz/a	15 GAL/AC	946 mL		12.81 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL		4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	
6	TAVIUM	3.39 LB/GAL		CS	56.5 fl oz/a	15 GAL/AC	946 mL		27.84 mL/mx	
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	26 fl oz/a	15 GAL/AC	946 mL		12.81 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL		4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	
7	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	15 GAL/AC	946 mL		15.77 mL/mx	
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	15 GAL/AC	946 mL		10.84 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL		4.729 mL/mx	
	ACTIVATOR 90 NIS	100 %		SL	0.25 % v/v	15 GAL/AC	946 mL		2.365 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	
8	FIERCE EZ	3.04 LBA/GAL		SC	6 fl oz/a	15 GAL/AC	946 mL		2.956 mL/mx	
	ROUNDUP POWERMAX	4.5 LBAE/GAL		SL	32 fl oz/a	15 GAL/AC	946 mL		15.77 mL/mx	
	XTENDIMAX	2.9 LBAE/GAL		SL	22 fl oz/a	15 GAL/AC	946 mL		10.84 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL		4.729 mL/mx	
	ACTIVATOR 90 NIS	100 %		SL	0.25 % v/v	15 GAL/AC	946 mL		2.365 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL		9.459 mL/mx	

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Reps: 4

Plots: 6.67 by 25 feet

Appl. Amount: 15 GAL/AC

Mix Size: 946 mL (total for 4 plots; minimum=869.4 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Appl Amount Unit	Mix Amount Unit	Mix Size Unit	Amt Product to Measure	R
9	FIERCE MTZ	2.64	LBA/GAL	SC	1 pt/a	15 GAL/AC	946 mL	946 mL	7.883 mL/mx	2
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	15 GAL/AC	946 mL	946 mL	10.84 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL	946 mL	4.729 mL/mx	
	ACTIVATOR 90 NIS	100 %		SL	0.25 % v/v	15 GAL/AC	946 mL	946 mL	2.365 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	
10	VALOR SX	51 %		WG	1.96 oz/a	15 GAL/AC	946 mL	946 mL	0.9257 g/mx	2
	TRICOR 4F	4	LBA/GAL	L	6 fl oz/a	15 GAL/AC	946 mL	946 mL	2.956 mL/mx	
	PROWL H2O	3.8	LBA/GAL	CS	24 fl oz/a	15 GAL/AC	946 mL	946 mL	11.82 mL/mx	
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	15 GAL/AC	946 mL	946 mL	10.84 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL	946 mL	4.729 mL/mx	
	ACTIVATOR 90 NIS	100 %		SL	0.25 % v/v	15 GAL/AC	946 mL	946 mL	2.365 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	
11	FIERCE MTZ	2.64	LBA/GAL	SC	1 pt/a	15 GAL/AC	946 mL	946 mL	7.883 mL/mx	2
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	FLEXSTAR	1.88	LB/GAL	L	1.3 pt/a	15 GAL/AC	946 mL	946 mL	10.25 mL/mx	
	MSO	100 %		SL	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	
	N-PAK AMS	3.4	LBA/GAL	L	2.5 % v/v	15 GAL/AC	946 mL	946 mL	23.65 mL/mx	
12	SONIC	70 %		WG	5 oz/a	15 GAL/AC	946 mL	946 mL	2.362 g/mx	2
	FEXAPAN	2.9	LBAE/GAL	SL	22 fl oz/a	15 GAL/AC	946 mL	946 mL	10.84 mL/mx	
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL	946 mL	4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	
13	SURVEIL	48 %		WG	3.5 oz/a	15 GAL/AC	946 mL	946 mL	1.653 g/mx	2
	FEXAPAN	2.9	LBAE/GAL	SL	22 fl oz/a	15 GAL/AC	946 mL	946 mL	10.84 mL/mx	
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL	946 mL	4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	
14	TRIVENCE @10 OZ/A	61.3 %		WG		15 GAL/AC	946 mL	946 mL		2
	CLASSIC	25 %		WG	1.56 oz/a	15 GAL/AC	946 mL	946 mL	0.7368 g/mx	
	VALOR SX	51 %		WG	2.5 oz/a	15 GAL/AC	946 mL	946 mL	1.181 g/mx	
	TRICOR 75 DF	75 %		DF	5.94 oz/a	15 GAL/AC	946 mL	946 mL	2.806 g/mx	
	FEXAPAN	2.9	LBAE/GAL	SL	22 fl oz/a	15 GAL/AC	946 mL	946 mL	10.84 mL/mx	
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	INTACT	100 %		L	0.5 % v/v	15 GAL/AC	946 mL	946 mL	4.729 mL/mx	
	CLASS ACT RIDION	100 %		L	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	
15	LPI-6634	4.3	LB/GAL	L	2.8 pt/a	15 GAL/AC	946 mL	946 mL	22.07 mL/mx	2
	MAKAZE	3	LBAE/GAL	SL	32 fl oz/a	15 GAL/AC	946 mL	946 mL	15.77 mL/mx	
	TOPGUN	2.0	LBA/GAL	L	16 fl oz/a	15 GAL/AC	946 mL	946 mL	7.883 mL/mx	
	MSO	100 %		SL	1 % v/v	15 GAL/AC	946 mL	946 mL	9.459 mL/mx	

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Reps: 4

Plots: 6.67 by 25 feet

Appl. Amount: 15 GAL/AC

Mix Size: 946 mL (total for 4 plots; minimum=869.4 mL)

Sort Order: Replicate 1

Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Unit	Form Type	Lot Code
35.475	mL	BOUNDARY	6.5	LB/GAL	EC	
34.490	mL	FLEXSTAR GT 3.5	2.82	LBAE/GAL	L	
12.318	mL	DUAL II MAGNUM	7.64	LB/GAL	EC	
35.471	mL	MSO	100	%	SL	
59.119	mL	N-PAK AMS	3.4	LBA/GAL	L	
139.190	mL	TAVIUM	3.39	LB/GAL	CS	
221.719	mL	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	
65.030	mL	INTACT	100	%	L	
130.061	mL	CLASS ACT RIDION	100	%	L	
19.708	mL	PREFIX	5.29	LB/GAL	EC	
10.592	g	TRICOR 75 DF	75	%	DF	
15.397	mL	BROADAXE XC	7	LB/GAL	L	
54.198	mL	XTENDIMAX	2.9	LBAE/GAL	SL	
11.824	mL	ACTIVATOR 90 NIS	100	%	SL	
3.695	mL	FIERCE EZ	3.04	LBA/GAL	SC	
19.708	mL	FIERCE MTZ	2.64	LBA/GAL	SC	
2.633	g	VALOR SX	51	%	WG	
3.695	mL	TRICOR 4F	4	LBA/GAL	L	
14.781	mL	PROWL H2O	3.8	LBA/GAL	CS	
12.810	mL	FLEXSTAR	1.88	LB/GAL	L	
2.952	g	SONIC	70	%	WG	
40.648	mL	FEXAPAN	2.9	LBAE/GAL	SL	
2.066	g	SURVEIL	48	%	WG	
0.921	g	CLASSIC	25	%	WG	
27.592	mL	LPI-6634	4.3	LB/GAL	L	
19.708	mL	MAKAZE	3	LBAE/GAL	SL	
9.854	mL	TOPGUN	2.0	LBA/GAL	L	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 946 mL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 946 mL.

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Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type				W Weed
Pest Code				AMATA
Pest Scientific Name				Amaranthus tamariscinus
Pest Name				Common waterhemp
Crop Type, Code	C GLXMA			C GLXMA
BBCH Scale	BSOY			BSOY
Crop Scientific Name	Glycine max			Glycine max
Crop Name	Soybean			Soybean
Rating Date	Jun-6-2019			Jun-6-2019
Part Rated	PLOT -			PLOT -
Rating Type	PHYGEN			CONTRO
Rating Unit	%			%
Sample Size				
Number of Subsamples	1			1
Assessed By	D. JOHNSON			D. JOHNSON
Data Entry Date	Jun-25-2019			Jun-25-2019
Rating Timing	A1			A1
Days After First/Last Applic.	21 21			21 21
Trt-Eval Interval	21 DA-A			21 DA-A
Plant-Eval Interval	21 DP-1			21 DP-1
Days After Emergence	10 DE-1			10 DE-1
ARM Action Codes	P			P
Number of Decimals	0			0
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	1	2
1 UNTREATED CHECK			0	0
2 BOUNDARY	1.8 pt/a	A	2 de	100 a
FLEXSTAR GT 3.5	3.5 pt/a	C		
DUAL II MAGNUM	1.25 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
3 BOUNDARY	1.8 pt/a	A	0 e	100 a
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-6-2019	Jun-6-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A1	A1
Days After First/Last Applic.	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1
Days After Emergence	10 DE-1	10 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		1 2
4 PREFIX	2 pt/a A	0 e 100 a
TRICOR 75 DF	6 oz/a A	
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
5 BROADAXE XC	25 fl oz/a A	4 de 100 a
TRICOR 75 DF	6 oz/a A	
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase		Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs	
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson	
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer	
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-6-2019	Jun-6-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A1	A1
Days After First/Last Applic.	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1
Days After Emergence	10 DE-1	10 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	1	2
6 TAVIUM	56.5 fl oz/a B	
ROUNDUP POWERMAX	26 fl oz/a B	
INTACT	0.5 % v/v B	
CLASS ACT RIDION	1 % v/v B	
7 ROUNDUP POWERMAX	32 fl oz/a B	
XTENDIMAX	22 fl oz/a B	
INTACT	0.5 % v/v B	
ACTIVATOR 90 NIS	0.25 % v/v B	
CLASS ACT RIDION	1 % 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.
 Untreated treatment(s) 1 excluded from analysis.
 Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28
 Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type				W Weed
Pest Code				AMATA
Pest Scientific Name				Amaranthus tamariscinus
Pest Name				Common waterhemp
Crop Type, Code	C GLXMA			C GLXMA
BBCH Scale	BSOY			BSOY
Crop Scientific Name	Glycine max			Glycine max
Crop Name	Soybean			Soybean
Rating Date	Jun-6-2019			Jun-6-2019
Part Rated	PLOT -			PLOT -
Rating Type	PHYGEN			CONTRO
Rating Unit	%			%
Sample Size				
Number of Subsamples	1			1
Assessed By	D. JOHNSON			D. JOHNSON
Data Entry Date	Jun-25-2019			Jun-25-2019
Rating Timing	A1			A1
Days After First/Last Applic.	21 21			21 21
Trt-Eval Interval	21 DA-A			21 DA-A
Plant-Eval Interval	21 DP-1			21 DP-1
Days After Emergence	10 DE-1			10 DE-1
ARM Action Codes	P			P
Number of Decimals	0			0
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	1	2
8 FIERCE EZ	6 fl oz/a	A	12 abc	100 a
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
9 FIERCE MTZ	1 pt/a	A	8 bcd	100 a
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-6-2019	Jun-6-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A1	A1
Days After First/Last Applic.	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1
Days After Emergence	10 DE-1	10 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	1	2
10 VALOR SX	1.96 oz/a A	100 a
TRICOR 4F	6 fl oz/a A	
PROWL H2O	24 fl oz/a A	
ROUNDUP POWERMAX	32 fl oz/a C	
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
11 FIERCE MTZ	1 pt/a A	100 a
ROUNDUP POWERMAX	32 fl oz/a C	
FLEXSTAR	1.3 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-6-2019	Jun-6-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A1	A1
Days After First/Last Applic.	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1
Days After Emergence	10 DE-1	10 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	1	2
12 SONIC	5 oz/a A	100 a
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
13 SURVEIL	3.5 oz/a A	100 a
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase		Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs	
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson	
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer	
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva	

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-6-2019	Jun-6-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A1	A1
Days After First/Last Applic.	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1
Days After Emergence	10 DE-1	10 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
		1
		2
14 TRIVENCE @10 OZ/A	A	12 abc
CLASSIC	1.56 oz/a A	100 a
VALOR SX	2.5 oz/a A	
TRICOR 75 DF	5.94 oz/a A	
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.
 Untreated treatment(s) 1 excluded from analysis.
 Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28
 Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-6-2019	Jun-6-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A1	A1
Days After First/Last Applic.	21 21	21 21
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	21 DP-1	21 DP-1
Days After Emergence	10 DE-1	10 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	1	2
15 LPI-6634	2.8 pt/a A	100 a
MAKAZE	32 fl oz/a C	
TOPGUN	16 fl oz/a C	
MSO	1 % v/v C	
LSD P=.05	7.4	.
Standard Deviation	5.1	0.0
CV	77.94	0.0
Grand Mean	6.6	100.0
Levene's F	1.353	0.00
Levene's Prob(F)	0.237	0.00*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	1.8006*	.
Kurtosis	4.3346*	.

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		
Pest Type		W Weed	
Pest Code		AMATA	
Pest Scientific Name		Amaranthus tamariscinus	
Pest Name		Common waterhemp	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Jun-6-2019	Jun-6-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	PHYGEN	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	
Data Entry Date	Jun-25-2019	Jun-25-2019	
Rating Timing	A1	A1	
Days After First/Last Applic.	21 21	21 21	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	21 DP-1	21 DP-1	
Days After Emergence	10 DE-1	10 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code	1	2
Replicate F	1.394	0.000	
Replicate Prob(F)	0.2620	1.0000	
Treatment F	5.272	0.000	
Treatment Prob(F)	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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed	
Pest Code	SETFA	AMBTR	ABUTH	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti	
Pest Name	Giant foxtail	Giant ragweed	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019	
Rating Timing	A1	A1	A1	
Days After First/Last Applic.	21 21	21 21	21 21	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	3	4
1 UNTREATED CHECK			0	0
2 BOUNDARY	1.8 pt/a	A	100 a	90 a
FLEXSTAR GT 3.5	3.5 pt/a	C		74 b
DUAL II MAGNUM	1.25 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
3 BOUNDARY	1.8 pt/a	A	100 a	80 a
TAVIUM	56.5 fl oz/a	C		95 a
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed	
Pest Code	SETFA	AMBTR	ABUTH	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti	
Pest Name	Giant foxtail	Giant ragweed	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019	
Rating Timing	A1	A1	A1	
Days After First/Last Applic.	21 21	21 21	21 21	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	3	4
4 PREFIX	2 pt/a	A	100 a	98 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
5 BROADAXE XC	25 fl oz/a	A	100 a	100 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed	W Weed		
Pest Code	SETFA	AMBTR	ABUTH		
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant foxtail	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean		
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019		
Part Rated	PLOT -	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%		
Sample Size					
Number of Subsamples	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019		
Rating Timing	A1	A1	A1		
Days After First/Last Applic.	21 21	21 21	21 21		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A		
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1		
Days After Emergence	10 DE-1	10 DE-1	10 DE-1		
ARM Action Codes	P	P	P		
Number of Decimals	0	0	0		
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	3	4	5
6 TAVIUM	56.5 fl oz/a B				
ROUNDUP POWERMAX	26 fl oz/a B				
INTACT	0.5 % v/v B				
CLASS ACT RIDION	1 % v/v B				
7 ROUNDUP POWERMAX	32 fl oz/a B				
XTENDIMAX	22 fl oz/a B				
INTACT	0.5 % v/v B				
ACTIVATOR 90 NIS	0.25 % v/v B				
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y		
Trial ID: 19S-MGS-SOY-12		Location: Meigs				
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson				
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer				
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed			
Pest Code	SETFA	AMBTR	ABUTH			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti			
Pest Name	Giant foxtail	Giant ragweed	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA			
BBCH Scale	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean			
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019			
Part Rated	PLOT -	PLOT -	PLOT -			
Rating Type	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%			
Sample Size						
Number of Subsamples	1	1	1			
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON			
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019			
Rating Timing	A1	A1	A1			
Days After First/Last Applic.	21 21	21 21	21 21			
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A			
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1			
Days After Emergence	10 DE-1	10 DE-1	10 DE-1			
ARM Action Codes	P	P	P			
Number of Decimals	0	0	0			
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code		3	4	5
8 FIERCE EZ	6 fl oz/a	A		100 a	98 a	100 a
ROUNDUP POWERMAX	32 fl oz/a	C				
XTENDIMAX	22 fl oz/a	C				
INTACT	0.5 % v/v	C				
ACTIVATOR 90 NIS	0.25 % v/v	C				
CLASS ACT RIDION	1 % v/v	C				
9 FIERCE MTZ	1 pt/a	A		100 a	86 a	100 a
ROUNDUP POWERMAX	32 fl oz/a	C				
XTENDIMAX	22 fl oz/a	C				
INTACT	0.5 % v/v	C				
ACTIVATOR 90 NIS	0.25 % v/v	C				
CLASS ACT RIDION	1 % v/v	C				

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y		
Trial ID: 19S-MGS-SOY-12		Location: Meigs				
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson				
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer				
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed			
Pest Code	SETFA	AMBTR	ABUTH			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti			
Pest Name	Giant foxtail	Giant ragweed	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA			
BBCH Scale	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean			
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019			
Part Rated	PLOT -	PLOT -	PLOT -			
Rating Type	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%			
Sample Size						
Number of Subsamples	1	1	1			
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON			
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019			
Rating Timing	A1	A1	A1			
Days After First/Last Applic.	21 21	21 21	21 21			
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A			
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1			
Days After Emergence	10 DE-1	10 DE-1	10 DE-1			
ARM Action Codes	P	P	P			
Number of Decimals	0	0	0			
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	3	4	5	
10 VALOR SX	1.96 oz/a	A	99 a	80 a	100 a	
TRICOR 4F	6 fl oz/a	A				
PROWL H2O	24 fl oz/a	A				
ROUNDUP POWERMAX	32 fl oz/a	C				
XTENDIMAX	22 fl oz/a	C				
INTACT	0.5 % v/v	C				
ACTIVATOR 90 NIS	0.25 % v/v	C				
CLASS ACT RIDION	1 % v/v	C				
11 FIERCE MTZ	1 pt/a	A	100 a	90 a	100 a	
ROUNDUP POWERMAX	32 fl oz/a	C				
FLEXSTAR	1.3 pt/a	C				
MSO	1 % v/v	C				
N-PAK AMS	2.5 % v/v	C				

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y		
Trial ID: 19S-MGS-SOY-12		Location: Meigs				
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson				
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer				
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed			
Pest Code	SETFA	AMBTR	ABUTH			
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti			
Pest Name	Giant foxtail	Giant ragweed	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA			
BBCH Scale	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean			
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019			
Part Rated	PLOT -	PLOT -	PLOT -			
Rating Type	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%			
Sample Size						
Number of Subsamples	1	1	1			
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON			
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019			
Rating Timing	A1	A1	A1			
Days After First/Last Applic.	21 21	21 21	21 21			
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A			
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1			
Days After Emergence	10 DE-1	10 DE-1	10 DE-1			
ARM Action Codes	P	P	P			
Number of Decimals	0	0	0			
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code		3	4	5
12 SONIC	5 oz/a	A		100 a	90 a	100 a
FEXAPAN	22 fl oz/a	C				
ROUNDUP POWERMAX	32 fl oz/a	C				
INTACT	0.5 % v/v	C				
CLASS ACT RIDION	1 % v/v	C				
13 SURVEIL	3.5 oz/a	A		100 a	96 a	100 a
FEXAPAN	22 fl oz/a	C				
ROUNDUP POWERMAX	32 fl oz/a	C				
INTACT	0.5 % v/v	C				
CLASS ACT RIDION	1 % v/v	C				

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed	W Weed		
Pest Code	SETFA	AMBTR	ABUTH		
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant foxtail	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean		
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019		
Part Rated	PLOT -	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%		
Sample Size					
Number of Subsamples	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019		
Rating Timing	A1	A1	A1		
Days After First/Last Applic.	21 21	21 21	21 21		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A		
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1		
Days After Emergence	10 DE-1	10 DE-1	10 DE-1		
ARM Action Codes	P	P	P		
Number of Decimals	0	0	0		
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	3	4	5
14 TRIVENCE @10 OZ/A		A	100 a	100 a	100 a
CLASSIC	1.56 oz/a	A			
VALOR SX	2.5 oz/a	A			
TRICOR 75 DF	5.94 oz/a	A			
FEXAPAN	22 fl oz/a	C			
ROUNDUP POWERMAX	32 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed	
Pest Code	SETFA	AMBTR	ABUTH	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti	
Pest Name	Giant foxtail	Giant ragweed	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019	
Rating Timing	A1	A1	A1	
Days After First/Last Applic.	21 21	21 21	21 21	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	3	4
15 LPI-6634	2.8 pt/a	A	100 a	93 a
MAKAZE	32 fl oz/a	C		
TOPGUN	16 fl oz/a	C		
MSO	1 % v/v	C		
LSD P=.05			1.0	23.3
Standard Deviation			0.7	16.2
CV			0.72	17.67
Grand Mean			99.9	91.7
Levene's F				0.727
Levene's Prob(F)				0.706
Rank X2			.	.
P(Rank X2)			.	.
Skewness			-6.9282*	-2.6862*
Kurtosis			48.0*	8.9034*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				
Trial ID: 19S-MGS-SOY-12		Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed	W Weed	
Pest Code	SETFA	AMBTR	ABUTH	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Abutilon theophrasti	
Pest Name	Giant foxtail	Giant ragweed	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jun-6-2019	Jun-6-2019	Jun-6-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	CONTRO	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Data Entry Date	Jun-25-2019	Jun-25-2019	Jun-25-2019	
Rating Timing	A1	A1	A1	
Days After First/Last Applic.	21 21	21 21	21 21	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	21 DP-1	21 DP-1	21 DP-1	
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	3	4
				5
Replicate F	1.000	0.768	1.865	
Replicate Prob(F)	0.4051	0.5204	0.1547	
Treatment F	1.000	0.746	3.242	
Treatment Prob(F)	0.4671	0.6876	0.0043	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type				W Weed
Pest Code				AMATA
Pest Scientific Name				Amaranthus tamariscinus
Pest Name				Common waterhemp
Crop Type, Code	C GLXMA			C GLXMA
BBCH Scale	BSOY			BSOY
Crop Scientific Name	Glycine max			Glycine max
Crop Name	Soybean			Soybean
Rating Date	Jun-26-2019			Jun-26-2019
Part Rated	PLOT -			PLOT -
Rating Type	PHYGEN			CONTRO
Rating Unit	%			%
Sample Size				
Number of Subsamples	1			1
Assessed By	J. HAARMANN			J. HAARMANN
Data Entry Date	Jun-27-2019			Jun-27-2019
Rating Timing	A2			A2
Days After First/Last Applic.	41 15			41 15
Trt-Eval Interval	21 DA-A			21 DA-A
Plant-Eval Interval	41 DP-1			41 DP-1
Days After Emergence	30 DE-1			30 DE-1
ARM Action Codes	P			P
Number of Decimals	0			0
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	6	7
1 UNTREATED CHECK			0	0
2 BOUNDARY	1.8 pt/a	A	0 a	86 d
FLEXSTAR GT 3.5	3.5 pt/a	C		
DUAL II MAGNUM	1.25 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
3 BOUNDARY	1.8 pt/a	A	0 a	85 d
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
		6
		7
4 PREFIX	2 pt/a A	0 a
TRICOR 75 DF	6 oz/a A	
TAVIUM	56.5 fl oz/a C	98 a
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
5 BROADAXE XC	25 fl oz/a A	0 a
TRICOR 75 DF	6 oz/a A	
TAVIUM	56.5 fl oz/a C	100 a
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		
Pest Type			W Weed	
Pest Code			AMATA	
Pest Scientific Name			Amaranthus tamariscinus	
Pest Name			Common waterhemp	
Crop Type, Code	C GLXMA		C GLXMA	
BBCH Scale	BSOY		BSOY	
Crop Scientific Name	Glycine max		Glycine max	
Crop Name	Soybean		Soybean	
Rating Date	Jun-26-2019		Jun-26-2019	
Part Rated	PLOT -		PLOT -	
Rating Type	PHYGEN		CONTRO	
Rating Unit	%		%	
Sample Size				
Number of Subsamples	1		1	
Assessed By	J. HAARMANN		J. HAARMANN	
Data Entry Date	Jun-27-2019		Jun-27-2019	
Rating Timing	A2		A2	
Days After First/Last Applic.	41 15		41 15	
Trt-Eval Interval	21 DA-A		21 DA-A	
Plant-Eval Interval	41 DP-1		41 DP-1	
Days After Emergence	30 DE-1		30 DE-1	
ARM Action Codes	P		P	
Number of Decimals	0		0	
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	6	7	
6 TAVIUM	56.5 fl oz/a B	8 a	96 ab	
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B	0 a	95 abc	
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	6	7
8 FIERCE EZ	6 fl oz/a A	3 a
ROUNDUP POWERMAX	32 fl oz/a C	88 cd
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
9 FIERCE MTZ	1 pt/a A	0 a
ROUNDUP POWERMAX	32 fl oz/a C	95 abc
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	6	7
10 VALOR SX	1.96 oz/a A	85 d
TRICOR 4F	6 fl oz/a A	
PROWL H2O	24 fl oz/a A	
ROUNDUP POWERMAX	32 fl oz/a C	
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
11 FIERCE MTZ	1 pt/a A	96 ab
ROUNDUP POWERMAX	32 fl oz/a C	
FLEXSTAR	1.3 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	6	7
12 SONIC	5 oz/a A	96 ab
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
13 SURVEIL	3.5 oz/a A	90 bcd
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type				W Weed
Pest Code				AMATA
Pest Scientific Name				Amaranthus tamariscinus
Pest Name				Common waterhemp
Crop Type, Code	C GLXMA			C GLXMA
BBCH Scale	BSOY			BSOY
Crop Scientific Name	Glycine max			Glycine max
Crop Name	Soybean			Soybean
Rating Date	Jun-26-2019			Jun-26-2019
Part Rated	PLOT -			PLOT -
Rating Type	PHYGEN			CONTRO
Rating Unit	%			%
Sample Size				
Number of Subsamples	1			1
Assessed By	J. HAARMANN			J. HAARMANN
Data Entry Date	Jun-27-2019			Jun-27-2019
Rating Timing	A2			A2
Days After First/Last Applic.	41 15			41 15
Trt-Eval Interval	21 DA-A			21 DA-A
Plant-Eval Interval	41 DP-1			41 DP-1
Days After Emergence	30 DE-1			30 DE-1
ARM Action Codes	P			P
Number of Decimals	0			0
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	6	7
14 TRIVENCE @10 OZ/A		A	11 a	93 abc
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.
 Untreated treatment(s) 1 excluded from analysis.
 Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28
 Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type			W Weed	
Pest Code			AMATA	
Pest Scientific Name			Amaranthus tamariscinus	
Pest Name			Common waterhemp	
Crop Type, Code	C GLXMA		C GLXMA	
BBCH Scale	BSOY		BSOY	
Crop Scientific Name	Glycine max		Glycine max	
Crop Name	Soybean		Soybean	
Rating Date	Jun-26-2019		Jun-26-2019	
Part Rated	PLOT -		PLOT -	
Rating Type	PHYGEN		CONTRO	
Rating Unit	%		%	
Sample Size				
Number of Subsamples	1		1	
Assessed By	J. HAARMANN		J. HAARMANN	
Data Entry Date	Jun-27-2019		Jun-27-2019	
Rating Timing	A2		A2	
Days After First/Last Applic.	41 15		41 15	
Trt-Eval Interval	21 DA-A		21 DA-A	
Plant-Eval Interval	41 DP-1		41 DP-1	
Days After Emergence	30 DE-1		30 DE-1	
ARM Action Codes	P		P	
Number of Decimals	0		0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	6	7
15 LPI-6634	2.8 pt/a	A	10 a	98 a
MAKAZE	32 fl oz/a	C		
TOPGUN	16 fl oz/a	C		
MSO	1 % v/v	C		
LSD P=.05			12.8	6.8
Standard Deviation			9.0	4.8
CV			233.33	5.11
Grand Mean			3.8	93.0
Levene's F			1.539	1.036
Levene's Prob(F)			0.145	0.438
Rank X2			.	.
P(Rank X2)			.	.
Skewness			2.3521*	-1.8861*
Kurtosis			5.014*	4.0093*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		
Pest Type		W Weed	
Pest Code		AMATA	
Pest Scientific Name		Amaranthus tamariscinus	
Pest Name		Common waterhemp	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Jun-26-2019	Jun-26-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	PHYGEN	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jun-27-2019	Jun-27-2019	
Rating Timing	A2	A2	
Days After First/Last Applic.	41 15	41 15	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	41 DP-1	41 DP-1	
Days After Emergence	30 DE-1	30 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
Replicate F	0.184	4.647	
Replicate Prob(F)	0.9069	0.0074	
Treatment F	1.300	4.557	
Treatment Prob(F)	0.2557	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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	8	9
1 UNTREATED CHECK	0	0
2 BOUNDARY	1.8 pt/a A	97 a
FLEXSTAR GT 3.5	3.5 pt/a C	45 de
DUAL II MAGNUM	1.25 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	
3 BOUNDARY	1.8 pt/a A	94 a
TAVIUM	56.5 fl oz/a C	23 e
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

	W Weed	W Weed
Pest Type	SETFA	AMBTR
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Appl	
	Rate Unit Code	
4 PREFIX	2 pt/a A	8
TRICOR 75 DF	6 oz/a A	95 a
TAVIUM	56.5 fl oz/a C	78 a-d
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
5 BROADAXE XC	25 fl oz/a A	97 a
TRICOR 75 DF	6 oz/a A	79 a-d
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Scientific Name		Setaria faberi	Ambrosia trifida	
Pest Name		Giant foxtail	Giant ragweed	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jun-26-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jun-27-2019	
Rating Timing		A2	A2	
Days After First/Last Applic.		41 15	41 15	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	41 DP-1	
Days After Emergence		30 DE-1	30 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	8	9	
6 TAVIUM	56.5 fl oz/a B	100 a	100 a	
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B	100 a	100 a	
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

	W Weed	W Weed
Pest Type	SETFA	AMBTR
Pest Code	Setaria faberi	Ambrosia trifida
Pest Scientific Name	Giant foxtail	Giant ragweed
Pest Name	C GLXMA	C GLXMA
Crop Type, Code	BSOY	BSOY
BBCH Scale	Glycine max	Glycine max
Crop Scientific Name	Soybean	Soybean
Crop Name	Jun-26-2019	Jun-26-2019
Rating Date	PLOT -	PLOT -
Part Rated	CONTRO	CONTRO
Rating Type	%	%
Rating Unit		
Sample Size	1	1
Number of Subsamples	J. HAARMANN	J. HAARMANN
Assessed By	Jun-27-2019	Jun-27-2019
Data Entry Date	A2	A2
Rating Timing	41 15	41 15
Days After First/Last Applic.	21 DA-A	21 DA-A
Trt-Eval Interval	41 DP-1	41 DP-1
Plant-Eval Interval	30 DE-1	30 DE-1
Days After Emergence	P	P
ARM Action Codes	0	0
Number of Decimals		
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	8	9
8 FIERCE EZ	6 fl oz/a A	95 a
ROUNDUP POWERMAX	32 fl oz/a C	44 de
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
9 FIERCE MTZ	1 pt/a A	85 a
ROUNDUP POWERMAX	32 fl oz/a C	48 cde
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				
Trial ID: 19S-MGS-SOY-12		Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Scientific Name		Setaria faberi	Ambrosia trifida	
Pest Name		Giant foxtail	Giant ragweed	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jun-26-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jun-27-2019	
Rating Timing		A2	A2	
Days After First/Last Applic.		41 15	41 15	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	41 DP-1	
Days After Emergence		30 DE-1	30 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	8	9
10 VALOR SX	1.96 oz/a	A	93 a	81 a-d
TRICOR 4F	6 fl oz/a	A		
PROWL H2O	24 fl oz/a	A		
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
11 FIERCE MTZ	1 pt/a	A	95 a	51 b-e
ROUNDUP POWERMAX	32 fl oz/a	C		
FLEXSTAR	1.3 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Scientific Name		Setaria faberi	Ambrosia trifida	
Pest Name		Giant foxtail	Giant ragweed	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jun-26-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jun-27-2019	
Rating Timing		A2	A2	
Days After First/Last Applic.		41 15	41 15	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	41 DP-1	
Days After Emergence		30 DE-1	30 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	8	9
12 SONIC	5 oz/a	A	93 a	91 abc
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
13 SURVEIL	3.5 oz/a	A	91 a	96 ab
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Scientific Name		Setaria faberi	Ambrosia trifida	
Pest Name		Giant foxtail	Giant ragweed	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jun-26-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jun-27-2019	
Rating Timing		A2	A2	
Days After First/Last Applic.		41 15	41 15	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	41 DP-1	
Days After Emergence		30 DE-1	30 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	8	9
14 TRIVENCE @10 OZ/A		A	95 a	85 a-d
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jun-26-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jun-27-2019
Rating Timing	A2	A2
Days After First/Last Applic.	41 15	41 15
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1
Days After Emergence	30 DE-1	30 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
		8
		9
15 LPI-6634	2.8 pt/a	A
MAKAZE	32 fl oz/a	C
TOPGUN	16 fl oz/a	C
MSO	1 % v/v	C
LSD P=.05	9.4	45.7
Standard Deviation	6.5	31.9
CV	6.89	45.29
Grand Mean	94.8	70.5
Levene's F	0.973	2.58
Levene's Prob(F)	0.493	0.01*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-4.6956*	-1.022*
Kurtosis	28.677*	-0.456

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			
Trial ID: 19S-MGS-SOY-12	Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed	
Pest Code	SETFA	AMBTR	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	
Pest Name	Giant foxtail	Giant ragweed	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Jun-26-2019	Jun-26-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jun-27-2019	Jun-27-2019	
Rating Timing	A2	A2	
Days After First/Last Applic.	41 15	41 15	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	41 DP-1	41 DP-1	
Days After Emergence	30 DE-1	30 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			8 9
Replicate F	2.489	0.400	
Replicate Prob(F)	0.0750	0.7539	
Treatment F	1.502	2.369	
Treatment Prob(F)	0.1617	0.0194	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	
Pest Code	ABUTH	
Pest Scientific Name	Abutilon theophrasti	
Pest Name	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jul-10-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	PHYGEN
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jul-17-2019
Rating Timing	A2	A3
Days After First/Last Applic.	41 15	55 14
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	55 DP-1
Days After Emergence	30 DE-1	44 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	10	11
1 UNTREATED CHECK	0	0
2 BOUNDARY	1.8 pt/a A	38 c
FLEXSTAR GT 3.5	3.5 pt/a C	13 a
DUAL II MAGNUM	1.25 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	
3 BOUNDARY	1.8 pt/a A	68 bc
TAVIUM	56.5 fl oz/a C	5 abc
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed		
Pest Code		ABUTH		
Pest Scientific Name		Abutilon theophrasti		
Pest Name		velvetleaf		
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	PHYGEN	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jul-17-2019	
Rating Timing		A2	A3	
Days After First/Last Applic.		41 15	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	55 DP-1	
Days After Emergence		30 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	10	11
4 PREFIX	2 pt/a	A		
TRICOR 75 DF	6 oz/a	A	50 c	1 bc
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
5 BROADAXE XC	25 fl oz/a	A	88 ab	2 bc
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	
Pest Code	ABUTH	
Pest Scientific Name	Abutilon theophrasti	
Pest Name	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jul-10-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	PHYGEN
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jul-17-2019
Rating Timing	A2	A3
Days After First/Last Applic.	41 15	55 14
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	55 DP-1
Days After Emergence	30 DE-1	44 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	10	11
6 TAVIUM	56.5 fl oz/a B	100 a
ROUNDUP POWERMAX	26 fl oz/a B	1 bc
INTACT	0.5 % v/v B	
CLASS ACT RIDION	1 % v/v B	
7 ROUNDUP POWERMAX	32 fl oz/a B	100 a
XTENDIMAX	22 fl oz/a B	0 c
INTACT	0.5 % v/v B	
ACTIVATOR 90 NIS	0.25 % v/v B	
CLASS ACT RIDION	1 % v/v B	

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

	W Weed	
Pest Type	ABUTH	
Pest Code	Abutilon theophrasti	
Pest Scientific Name	velvetleaf	
Pest Name	C GLXMA	C GLXMA
Crop Type, Code	BSOY	BSOY
BBCH Scale	Glycine max	Glycine max
Crop Scientific Name	Soybean	Soybean
Crop Name	Jun-26-2019	Jul-10-2019
Rating Date	PLOT -	PLOT -
Part Rated	CONTRO	PHYGEN
Rating Type	%	%
Rating Unit		
Sample Size	1	1
Number of Subsamples	J. HAARMANN	J. HAARMANN
Assessed By	Jun-27-2019	Jul-17-2019
Data Entry Date	A2	A3
Rating Timing	41 15	55 14
Days After First/Last Applic.	21 DA-A	21 DA-A
Trt-Eval Interval	41 DP-1	55 DP-1
Plant-Eval Interval	30 DE-1	44 DE-1
Days After Emergence	P	P
ARM Action Codes	0	0
Number of Decimals		
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	10	11
8 FIERCE EZ	6 fl oz/a A	98 ab
ROUNDUP POWERMAX	32 fl oz/a C	0 c
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
9 FIERCE MTZ	1 pt/a A	86 ab
ROUNDUP POWERMAX	32 fl oz/a C	1 c
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	
Pest Code	ABUTH	
Pest Scientific Name	Abutilon theophrasti	
Pest Name	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jul-10-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	PHYGEN
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jul-17-2019
Rating Timing	A2	A3
Days After First/Last Applic.	41 15	55 14
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	55 DP-1
Days After Emergence	30 DE-1	44 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
10 VALOR SX	1.96 oz/a	A
TRICOR 4F	6 fl oz/a	A
PROWL H2O	24 fl oz/a	A
ROUNDUP POWERMAX	32 fl oz/a	C
XTENDIMAX	22 fl oz/a	C
INTACT	0.5 % v/v	C
ACTIVATOR 90 NIS	0.25 % v/v	C
CLASS ACT RIDION	1 % v/v	C
11 FIERCE MTZ	1 pt/a	A
ROUNDUP POWERMAX	32 fl oz/a	C
FLEXSTAR	1.3 pt/a	C
MISO	1 % v/v	C
N-PAK AMS	2.5 % v/v	C

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	
Pest Code	ABUTH	
Pest Scientific Name	Abutilon theophrasti	
Pest Name	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jun-26-2019	Jul-10-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	PHYGEN
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-27-2019	Jul-17-2019
Rating Timing	A2	A3
Days After First/Last Applic.	41 15	55 14
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	41 DP-1	55 DP-1
Days After Emergence	30 DE-1	44 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	10	11
12 SONIC	5 oz/a A	100 a
FEXAPAN	22 fl oz/a C	0 c
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
13 SURVEIL	3.5 oz/a A	100 a
FEXAPAN	22 fl oz/a C	6 abc
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed		
Pest Code		ABUTH		
Pest Scientific Name		Abutilon theophrasti		
Pest Name		velvetleaf		
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	PHYGEN	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jul-17-2019	
Rating Timing		A2	A3	
Days After First/Last Applic.		41 15	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	55 DP-1	
Days After Emergence		30 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	10	11
14 TRIVENCE @10 OZ/A		A	100 a	9 ab
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed		
Pest Code		ABUTH		
Pest Scientific Name		Abutilon theophrasti		
Pest Name		velvetleaf		
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jun-26-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	PHYGEN	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jun-27-2019	Jul-17-2019	
Rating Timing		A2	A3	
Days After First/Last Applic.		41 15	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		41 DP-1	55 DP-1	
Days After Emergence		30 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	10	11
15 LPI-6634	2.8 pt/a	A	93 ab	11 a
MAKAZE	32 fl oz/a	C		
TOPGUN	16 fl oz/a	C		
MSO	1 % v/v	C		
LSD P=.05			31.9	7.6
Standard Deviation			22.3	5.3
CV			25.75	147.91
Grand Mean			86.6	3.6
Levene's F			6.096	3.076
Levene's Prob(F)			0.001*	0.003*
Rank X2			.	.
P(Rank X2)			.	.
Skewness			-2.2317*	1.6558*
Kurtosis			4.0022*	1.4677*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			
Trial ID: 19S-MGS-SOY-12	Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed		
Pest Code	ABUTH		
Pest Scientific Name	Abutilon theophrasti		
Pest Name	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Jun-26-2019	Jul-10-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	CONTRO	PHYGEN	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jun-27-2019	Jul-17-2019	
Rating Timing	A2	A3	
Days After First/Last Applic.	41 15	55 14	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	41 DP-1	55 DP-1	
Days After Emergence	30 DE-1	44 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
Replicate F	2.656	0.869	
Replicate Prob(F)	0.0622	0.4656	
Treatment F	3.332	2.792	
Treatment Prob(F)	0.0019	0.0066	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
1 UNTREATED CHECK			0	0
2 BOUNDARY	1.8 pt/a	A	100 a	100 a
FLEXSTAR GT 3.5	3.5 pt/a	C		
DUAL II MAGNUM	1.25 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
3 BOUNDARY	1.8 pt/a	A	100 a	100 a
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			

Pest Type	W Weed	W Weed	
Pest Code	AMATA	SETFA	
Pest Scientific Name	Amaranthus tamariscinus	Setaria faberi	
Pest Name	Common waterhemp	Giant foxtail	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Jul-10-2019	Jul-10-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jul-17-2019	Jul-17-2019	
Rating Timing	A3	A3	
Days After First/Last Applic.	55 14	55 14	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	
Days After Emergence	44 DE-1	44 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			12
4 PREFIX	2 pt/a	A	
TRICOR 75 DF	6 oz/a	A	
TAVIUM	56.5 fl oz/a	C	
ROUNDUP POWERMAX	26 fl oz/a	C	
INTACT	0.5 % v/v	C	
CLASS ACT RIDION	1 % v/v	C	
			100 a
5 BROADAXE XC	25 fl oz/a	A	
TRICOR 75 DF	6 oz/a	A	
TAVIUM	56.5 fl oz/a	C	
ROUNDUP POWERMAX	26 fl oz/a	C	
INTACT	0.5 % v/v	C	
CLASS ACT RIDION	1 % v/v	C	
			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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
6 TAVIUM	56.5 fl oz/a B		80 c	95 b
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B		89 bc	91 c
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
8 FIERCE EZ	6 fl oz/a	A	98 a	100 a
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
9 FIERCE MTZ	1 pt/a	A	100 a	100 a
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
10 VALOR SX	1.96 oz/a	A	98 ab	99 a
TRICOR 4F	6 fl oz/a	A		
PROWL H2O	24 fl oz/a	A		
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
11 FIERCE MTZ	1 pt/a	A	80 c	87 d
ROUNDUP POWERMAX	32 fl oz/a	C		
FLEXSTAR	1.3 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
12 SONIC	5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
13 SURVEIL	3.5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
14 TRIVENCE @10 OZ/A		A	99 a	100 a
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	AMATA	SETFA
Pest Scientific Name	Amaranthus tamariscinus	Setaria faberi
Pest Name	Common waterhemp	Giant foxtail
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-10-2019	Jul-10-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A3	A3
Days After First/Last Applic.	55 14	55 14
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	55 DP-1	55 DP-1
Days After Emergence	44 DE-1	44 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	12	13
15 LPI-6634	2.8 pt/a A	100 a
MAKAZE	32 fl oz/a C	100 a
TOPGUN	16 fl oz/a C	
MSO	1 % v/v C	
LSD P=.05	9.3	2.8
Standard Deviation	6.5	1.9
CV	6.81	1.99
Grand Mean	95.8	97.9
Levene's F	7.769	1.301
Levene's Prob(F)	0.001*	0.251
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-3.1508*	-2.5097*
Kurtosis	10.7967*	6.6453*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-10-2019	Jul-10-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A3	A3	
Days After First/Last Applic.		55 14	55 14	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		55 DP-1	55 DP-1	
Days After Emergence		44 DE-1	44 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	12	13
Replicate F			4.038	0.933
Replicate Prob(F)			0.0136	0.4344
Treatment F			5.168	18.241
Treatment Prob(F)			0.0001	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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	PHYGEN	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON	
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019	
Rating Timing	A3	A3	A4	
Days After First/Last Applic.	55 14	55 14	68 27	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1	
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	14	15
1 UNTREATED CHECK			0	0
2 BOUNDARY	1.8 pt/a	A	100 a	99 a
FLEXSTAR GT 3.5	3.5 pt/a	C		7 a
DUAL II MAGNUM	1.25 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
3 BOUNDARY	1.8 pt/a	A	100 a	100 a
TAVIUM	56.5 fl oz/a	C		1 cde
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed			
Pest Code	AMBTR	ABUTH			
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti			
Pest Name	Giant ragweed	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean		
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019		
Part Rated	PLOT -	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO	PHYGEN		
Rating Unit	%	%	%		
Sample Size					
Number of Subsamples	1	1	1		
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON		
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019		
Rating Timing	A3	A3	A4		
Days After First/Last Applic.	55 14	55 14	68 27		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A		
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1		
Days After Emergence	44 DE-1	44 DE-1	57 DE-1		
ARM Action Codes	P	P	P		
Number of Decimals	0	0	0		
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	14	15	16
4 PREFIX	2 pt/a	A	100 a	99 a	0 e
TRICOR 75 DF	6 oz/a	A			
TAVIUM	56.5 fl oz/a	C			
ROUNDUP POWERMAX	26 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			
5 BROADAXE XC	25 fl oz/a	A	100 a	100 a	1 cde
TRICOR 75 DF	6 oz/a	A			
TAVIUM	56.5 fl oz/a	C			
ROUNDUP POWERMAX	26 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	PHYGEN	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON	
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019	
Rating Timing	A3	A3	A4	
Days After First/Last Applic.	55 14	55 14	68 27	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1	
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	14	15
6 TAVIUM	56.5 fl oz/a B		95 a	95 a
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			0 e
7 ROUNDUP POWERMAX	32 fl oz/a B		94 a	98 a
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			0 e

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	PHYGEN	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON	
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019	
Rating Timing	A3	A3	A4	
Days After First/Last Applic.	55 14	55 14	68 27	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1	
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	14	15
8 FIERCE EZ	6 fl oz/a	A	100 a	100 a
ROUNDUP POWERMAX	32 fl oz/a	C		0 e
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
9 FIERCE MTZ	1 pt/a	A	100 a	99 a
ROUNDUP POWERMAX	32 fl oz/a	C		0 e
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	PHYGEN	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON	
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019	
Rating Timing	A3	A3	A4	
Days After First/Last Applic.	55 14	55 14	68 27	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1	
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	14	15
10 VALOR SX	1.96 oz/a	A	99 a	100 a
TRICOR 4F	6 fl oz/a	A		
PROWL H2O	24 fl oz/a	A		
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
11 FIERCE MTZ	1 pt/a	A	63 b	81 b
ROUNDUP POWERMAX	32 fl oz/a	C		
FLEXSTAR	1.3 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed			
Pest Code	AMBTR	ABUTH			
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti			
Pest Name	Giant ragweed	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean		
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019		
Part Rated	PLOT -	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO	PHYGEN		
Rating Unit	%	%	%		
Sample Size					
Number of Subsamples	1	1	1		
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON		
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019		
Rating Timing	A3	A3	A4		
Days After First/Last Applic.	55 14	55 14	68 27		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A		
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1		
Days After Emergence	44 DE-1	44 DE-1	57 DE-1		
ARM Action Codes	P	P	P		
Number of Decimals	0	0	0		
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	14	15	16
12 SONIC	5 oz/a	A	100 a	100 a	0 e
FEXAPAN	22 fl oz/a	C			
ROUNDUP POWERMAX	32 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			
13 SURVEIL	3.5 oz/a	A	100 a	100 a	1 cd
FEXAPAN	22 fl oz/a	C			
ROUNDUP POWERMAX	32 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	PHYGEN	
Rating Unit	%	%	%	
Sample Size				
Number of Subsamples	1	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON	
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019	
Rating Timing	A3	A3	A4	
Days After First/Last Applic.	55 14	55 14	68 27	
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1	
Days After Emergence	44 DE-1	44 DE-1	57 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	14	15
14 TRIVENCE @10 OZ/A		A	100 a	100 a
CLASSIC	1.56 oz/a	A		2 c
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			
Trial ID: 19S-MGS-SOY-12	Location: Meigs	Trial Y	
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed	
Pest Code	AMBTR	ABUTH	
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti	
Pest Name	Giant ragweed	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%
Sample Size			
Number of Subsamples	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019
Rating Timing	A3	A3	A4
Days After First/Last Applic.	55 14	55 14	68 27
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1
Days After Emergence	44 DE-1	44 DE-1	57 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			14
15 LPI-6634	2.8 pt/a	A	100 a
MAKAZE	32 fl oz/a	C	
TOPGUN	16 fl oz/a	C	
MSO	1 % v/v	C	15
			16
			3 b
LSD P=.05	12.5	9.5	1.2
Standard Deviation	8.8	6.6	0.8
CV	9.09	6.76	80.65
Grand Mean	96.4	97.8	1.0
Levene's F	62.868	7.772	2.986
Levene's Prob(F)	0.001*	0.001*	0.004*
Rank X2	.	.	.
P(Rank X2)	.	.	.
Skewness	-4.7295*	-5.2029*	2.4627*
Kurtosis	22.6875*	30.0751*	6.2638*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			
Trial ID: 19S-MGS-SOY-12	Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed	
Pest Code	AMBTR	ABUTH	
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti	
Pest Name	Giant ragweed	velvetleaf	
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Rating Date	Jul-10-2019	Jul-10-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%
Sample Size			
Number of Subsamples	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019	Jul-17-2019
Rating Timing	A3	A3	A4
Days After First/Last Applic.	55 14	55 14	68 27
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	55 DP-1	55 DP-1	68 DP-1
Days After Emergence	44 DE-1	44 DE-1	57 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			14
			15
			16
Replicate F	0.969	1.544	6.108
Replicate Prob(F)	0.4172	0.2186	0.0016
Treatment F	5.165	2.249	23.142
Treatment Prob(F)	0.0001	0.0255	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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	17	18
1 UNTREATED CHECK			0	0
2 BOUNDARY	1.8 pt/a	A	94 a	98 a
FLEXSTAR GT 3.5	3.5 pt/a	C		
DUAL II MAGNUM	1.25 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
3 BOUNDARY	1.8 pt/a	A	100 a	100 a
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	17	18
4 PREFIX	2 pt/a	A	100 a	100 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
5 BROADAXE XC	25 fl oz/a	A	100 a	100 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	17	18
6 TAVIUM	56.5 fl oz/a B		68 b	90 a
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B		75 b	84 a
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

	W Weed	W Weed
Pest Type	AMATA	SETFA
Pest Code		
Pest Scientific Name	Amaranthus tamariscinus	Setaria faberi
Pest Name	Common waterhemp	Giant foxtail
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-23-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A4	A4
Days After First/Last Applic.	68 27	68 27
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	68 DP-1	68 DP-1
Days After Emergence	57 DE-1	57 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Appl Rate Unit Code	
	17	18
8 FIERCE EZ	6 fl oz/a A	98 a
ROUNDUP POWERMAX	32 fl oz/a C	99 a
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
9 FIERCE MTZ	1 pt/a A	98 a
ROUNDUP POWERMAX	32 fl oz/a C	99 a
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	AMATA	SETFA
Pest Scientific Name	Amaranthus tamariscinus	Setaria faberi
Pest Name	Common waterhemp	Giant foxtail
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-23-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A4	A4
Days After First/Last Applic.	68 27	68 27
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	68 DP-1	68 DP-1
Days After Emergence	57 DE-1	57 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	17	18
10 VALOR SX	1.96 oz/a A	100 a
TRICOR 4F	6 fl oz/a A	
PROWL H2O	24 fl oz/a A	
ROUNDUP POWERMAX	32 fl oz/a C	
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
11 FIERCE MTZ	1 pt/a A	71 b
ROUNDUP POWERMAX	32 fl oz/a C	
FLEXSTAR	1.3 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	45 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	17	18
12 SONIC	5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
13 SURVEIL	3.5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	17	18
14 TRIVENCE @10 OZ/A		A	99 a	100 a
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	AMATA	SETFA
Pest Scientific Name	Amaranthus tamariscinus	Setaria faberi
Pest Name	Common waterhemp	Giant foxtail
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-23-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A4	A4
Days After First/Last Applic.	68 27	68 27
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	68 DP-1	68 DP-1
Days After Emergence	57 DE-1	57 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	17	18
15 LPI-6634	2.8 pt/a A	95 a
MAKAZE	32 fl oz/a C	100 a
TOPGUN	16 fl oz/a C	
MSO	1 % v/v C	
LSD P=.05	11.9	16.0
Standard Deviation	8.3	11.2
CV	9.0	11.96
Grand Mean	92.6	93.8
Levene's F	9.506	5.375
Levene's Prob(F)	0.001*	0.001*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-2.2836*	-4.0437*
Kurtosis	4.5777*	17.4948*

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				
Trial ID: 19S-MGS-SOY-12		Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMATA	SETFA	
Pest Scientific Name		Amaranthus tamariscinus	Setaria faberi	
Pest Name		Common waterhemp	Giant foxtail	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	17	18
Replicate F			4.730	2.023
Replicate Prob(F)			0.0066	0.1266
Treatment F			8.140	6.951
Treatment Prob(F)			0.0001	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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	AMBTR	ABUTH
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti
Pest Name	Giant ragweed	velvetleaf
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-23-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A4	A4
Days After First/Last Applic.	68 27	68 27
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	68 DP-1	68 DP-1
Days After Emergence	57 DE-1	57 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	19	20
1 UNTREATED CHECK	0	0
2 BOUNDARY	1.8 pt/a A	83 bc
FLEXSTAR GT 3.5	3.5 pt/a C	
DUAL II MAGNUM	1.25 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	
3 BOUNDARY	1.8 pt/a A	90 ab
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		AMBTR	ABUTH	
Pest Scientific Name		Ambrosia trifida	Abutilon theophrasti	
Pest Name		Giant ragweed	velvetleaf	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
4 PREFIX	2 pt/a	A	100 a	98 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
5 BROADAXE XC	25 fl oz/a	A	100 a	100 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	Jul-23-2019	Jul-23-2019		
Part Rated	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO		
Rating Unit	%	%		
Sample Size				
Number of Subsamples	1	1		
Assessed By	D. JOHNSON	D. JOHNSON		
Data Entry Date	Jul-17-2019	Jul-17-2019		
Rating Timing	A4	A4		
Days After First/Last Applic.	68 27	68 27		
Trt-Eval Interval	21 DA-A	21 DA-A		
Plant-Eval Interval	68 DP-1	68 DP-1		
Days After Emergence	57 DE-1	57 DE-1		
ARM Action Codes	P	P		
Number of Decimals	0	0		
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
6 TAVIUM	56.5 fl oz/a B		100 a	96 ab
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B		99 a	98 a
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	AMBTR	ABUTH
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti
Pest Name	Giant ragweed	velvetleaf
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-23-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A4	A4
Days After First/Last Applic.	68 27	68 27
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	68 DP-1	68 DP-1
Days After Emergence	57 DE-1	57 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	19	20
8 FIERCE EZ	6 fl oz/a A	100 a
ROUNDUP POWERMAX	32 fl oz/a C	96 ab
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
9 FIERCE MTZ	1 pt/a A	100 a
ROUNDUP POWERMAX	32 fl oz/a C	91 ab
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			

	W Weed	W Weed	
Pest Type	AMBTR	ABUTH	
Pest Code	Ambrosia trifida	Abutilon theophrasti	
Pest Scientific Name	Giant ragweed	velvetleaf	
Pest Name	C GLXMA	C GLXMA	
Crop Type, Code	BSOY	BSOY	
BBCH Scale	Glycine max	Glycine max	
Crop Scientific Name	Soybean	Soybean	
Crop Name	Jul-23-2019	Jul-23-2019	
Rating Date	PLOT -	PLOT -	
Part Rated	CONTRO	CONTRO	
Rating Type	%	%	
Rating Unit			
Sample Size	1	1	
Number of Subsamples	D. JOHNSON	D. JOHNSON	
Assessed By	Jul-17-2019	Jul-17-2019	
Data Entry Date	A4	A4	
Rating Timing	68 27	68 27	
Days After First/Last Applic.	21 DA-A	21 DA-A	
Trt-Eval Interval	68 DP-1	68 DP-1	
Plant-Eval Interval	57 DE-1	57 DE-1	
Days After Emergence	P	P	
ARM Action Codes	0	0	
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	19	20	
10 VALOR SX	1.96 oz/a A		100 a
TRICOR 4F	6 fl oz/a A		93 ab
PROWL H2O	24 fl oz/a A		
ROUNDUP POWERMAX	32 fl oz/a C		
XTENDIMAX	22 fl oz/a C		
INTACT	0.5 % v/v C		
ACTIVATOR 90 NIS	0.25 % v/v C		
CLASS ACT RIDION	1 % v/v C		
11 FIERCE MTZ	1 pt/a A		0 b
ROUNDUP POWERMAX	32 fl oz/a C		74 c
FLEXSTAR	1.3 pt/a C		
MISO	1 % v/v C		
N-PAK AMS	2.5 % v/v C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	Jul-23-2019	Jul-23-2019		
Part Rated	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO		
Rating Unit	%	%		
Sample Size				
Number of Subsamples	1	1		
Assessed By	D. JOHNSON	D. JOHNSON		
Data Entry Date	Jul-17-2019	Jul-17-2019		
Rating Timing	A4	A4		
Days After First/Last Applic.	68 27	68 27		
Trt-Eval Interval	21 DA-A	21 DA-A		
Plant-Eval Interval	68 DP-1	68 DP-1		
Days After Emergence	57 DE-1	57 DE-1		
ARM Action Codes	P	P		
Number of Decimals	0	0		
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
12 SONIC	5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
13 SURVEIL	3.5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type		W Weed	W Weed	
Pest Code		AMBTR	ABUTH	
Pest Scientific Name		Ambrosia trifida	Abutilon theophrasti	
Pest Name		Giant ragweed	velvetleaf	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Jul-23-2019	Jul-23-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		D. JOHNSON	D. JOHNSON	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A4	A4	
Days After First/Last Applic.		68 27	68 27	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		68 DP-1	68 DP-1	
Days After Emergence		57 DE-1	57 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
14 TRIVENCE @10 OZ/A		A	100 a	100 a
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase		
Trial ID: 19S-MGS-SOY-12	Location: Meigs	Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson	
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer	
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	AMBTR	ABUTH
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti
Pest Name	Giant ragweed	velvetleaf
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Jul-23-2019	Jul-23-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A4	A4
Days After First/Last Applic.	68 27	68 27
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	68 DP-1	68 DP-1
Days After Emergence	57 DE-1	57 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	19	20
15 LPI-6634	2.8 pt/a A	99 a
MAKAZE	32 fl oz/a C	90 ab
TOPGUN	16 fl oz/a C	
MSO	1 % v/v C	
LSD P=.05	1.4	13.9
Standard Deviation	1.0	9.7
CV	1.08	10.44
Grand Mean	92.6	93.3
Levene's F	0.817	2.735
Levene's Prob(F)	0.64	0.007*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-3.412*	-2.1439*
Kurtosis	10.0198*	4.0941*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				
Trial ID: 19S-MGS-SOY-12		Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	AMBTR	ABUTH		
Pest Scientific Name	Ambrosia trifida	Abutilon theophrasti		
Pest Name	Giant ragweed	velvetleaf		
Crop Type, Code	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	Jul-23-2019	Jul-23-2019		
Part Rated	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO		
Rating Unit	%	%		
Sample Size				
Number of Subsamples	1	1		
Assessed By	D. JOHNSON	D. JOHNSON		
Data Entry Date	Jul-17-2019	Jul-17-2019		
Rating Timing	A4	A4		
Days After First/Last Applic.	68 27	68 27		
Trt-Eval Interval	21 DA-A	21 DA-A		
Plant-Eval Interval	68 DP-1	68 DP-1		
Days After Emergence	57 DE-1	57 DE-1		
ARM Action Codes	P	P		
Number of Decimals	0	0		
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	19	20
Replicate F	1.395			4.370
Replicate Prob(F)	0.2589			0.0097
Treatment F	2821.931			2.461
Treatment Prob(F)	0.0001			0.0155

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	21	22
1 UNTREATED CHECK	0	0
2 BOUNDARY	1.8 pt/a A	100 a
FLEXSTAR GT 3.5	3.5 pt/a C	
DUAL II MAGNUM	1.25 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	
3 BOUNDARY	1.8 pt/a A	100 a
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		
Pest Type			W Weed	
Pest Code			AMATA	
Pest Scientific Name			Amaranthus tamariscinus	
Pest Name			Common waterhemp	
Crop Type, Code	C GLXMA		C GLXMA	
BBCH Scale	BSOY		BSOY	
Crop Scientific Name	Glycine max		Glycine max	
Crop Name	Soybean		Soybean	
Rating Date	Aug-9-2019		Aug-9-2019	
Part Rated	PLOT -		PLOT -	
Rating Type	PHYGEN		CONTRO	
Rating Unit	%		%	
Sample Size				
Number of Subsamples	1		1	
Assessed By	J. HAARMANN		J. HAARMANN	
Data Entry Date	Jul-17-2019		Jul-17-2019	
Rating Timing	A5		A5	
Days After First/Last Applic.	85 44		85 44	
Trt-Eval Interval	21 DA-A		21 DA-A	
Plant-Eval Interval	85 DP-1		85 DP-1	
Days After Emergence	74 DE-1		74 DE-1	
ARM Action Codes	P		P	
Number of Decimals	0		0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	21	22
4 PREFIX	2 pt/a	A	0 a	100 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
5 BROADAXE XC	25 fl oz/a	A	0 a	100 a
TRICOR 75 DF	6 oz/a	A		
TAVIUM	56.5 fl oz/a	C		
ROUNDUP POWERMAX	26 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type			W Weed	
Pest Code			AMATA	
Pest Scientific Name			Amaranthus tamariscinus	
Pest Name			Common waterhemp	
Crop Type, Code	C GLXMA		C GLXMA	
BBCH Scale	BSOY		BSOY	
Crop Scientific Name	Glycine max		Glycine max	
Crop Name	Soybean		Soybean	
Rating Date	Aug-9-2019		Aug-9-2019	
Part Rated	PLOT -		PLOT -	
Rating Type	PHYGEN		CONTRO	
Rating Unit	%		%	
Sample Size				
Number of Subsamples	1		1	
Assessed By	J. HAARMANN		J. HAARMANN	
Data Entry Date	Jul-17-2019		Jul-17-2019	
Rating Timing	A5		A5	
Days After First/Last Applic.	85 44		85 44	
Trt-Eval Interval	21 DA-A		21 DA-A	
Plant-Eval Interval	85 DP-1		85 DP-1	
Days After Emergence	74 DE-1		74 DE-1	
ARM Action Codes	P		P	
Number of Decimals	0		0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	21	22
6 TAVIUM	56.5 fl oz/a B		0 a	73 c
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B		0 a	93 ab
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs	
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson	
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer	
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type		W Weed	
Pest Code		AMATA	
Pest Scientific Name		Amaranthus tamariscinus	
Pest Name		Common waterhemp	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Aug-9-2019	Aug-9-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	PHYGEN	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jul-17-2019	Jul-17-2019	
Rating Timing	A5	A5	
Days After First/Last Applic.	85 44	85 44	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	85 DP-1	85 DP-1	
Days After Emergence	74 DE-1	74 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code	21	22
8 FIERCE EZ	6 fl oz/a A	0 a	100 a
ROUNDUP POWERMAX	32 fl oz/a C		
XTENDIMAX	22 fl oz/a C		
INTACT	0.5 % v/v C		
ACTIVATOR 90 NIS	0.25 % v/v C		
CLASS ACT RIDION	1 % v/v C		
9 FIERCE MTZ	1 pt/a A	0 a	100 a
ROUNDUP POWERMAX	32 fl oz/a C		
XTENDIMAX	22 fl oz/a C		
INTACT	0.5 % v/v C		
ACTIVATOR 90 NIS	0.25 % v/v C		
CLASS ACT RIDION	1 % v/v C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	21	22
10 VALOR SX	1.96 oz/a A	100 a
TRICOR 4F	6 fl oz/a A	
PROWL H2O	24 fl oz/a A	
ROUNDUP POWERMAX	32 fl oz/a C	
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
11 FIERCE MTZ	1 pt/a A	89 b
ROUNDUP POWERMAX	32 fl oz/a C	
FLEXSTAR	1.3 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type		W Weed
Pest Code		AMATA
Pest Scientific Name		Amaranthus tamariscinus
Pest Name		Common waterhemp
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	PHYGEN	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	21	22
12 SONIC	5 oz/a A	100 a
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
13 SURVEIL	3.5 oz/a A	100 a
FEXAPAN	22 fl oz/a C	
ROUNDUP POWERMAX	32 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type			W Weed	
Pest Code			AMATA	
Pest Scientific Name			Amaranthus tamariscinus	
Pest Name			Common waterhemp	
Crop Type, Code	C GLXMA		C GLXMA	
BBCH Scale	BSOY		BSOY	
Crop Scientific Name	Glycine max		Glycine max	
Crop Name	Soybean		Soybean	
Rating Date	Aug-9-2019		Aug-9-2019	
Part Rated	PLOT -		PLOT -	
Rating Type	PHYGEN		CONTRO	
Rating Unit	%		%	
Sample Size				
Number of Subsamples	1		1	
Assessed By	J. HAARMANN		J. HAARMANN	
Data Entry Date	Jul-17-2019		Jul-17-2019	
Rating Timing	A5		A5	
Days After First/Last Applic.	85 44		85 44	
Trt-Eval Interval	21 DA-A		21 DA-A	
Plant-Eval Interval	85 DP-1		85 DP-1	
Days After Emergence	74 DE-1		74 DE-1	
ARM Action Codes	P		P	
Number of Decimals	0		0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	21	22
14 TRIVENCE @10 OZ/A		A	0 a	100 a
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs	
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson	
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer	
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type		W Weed	
Pest Code		AMATA	
Pest Scientific Name		Amaranthus tamariscinus	
Pest Name		Common waterhemp	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Aug-9-2019	Aug-9-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	PHYGEN	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jul-17-2019	Jul-17-2019	
Rating Timing	A5	A5	
Days After First/Last Applic.	85 44	85 44	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	85 DP-1	85 DP-1	
Days After Emergence	74 DE-1	74 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code	21	22
15 LPI-6634	2.8 pt/a A	0 a	100 a
MAKAZE	32 fl oz/a C		
TOPGUN	16 fl oz/a C		
MSO	1 % v/v C		
LSD P=.05		.	10.8
Standard Deviation		0.0	7.6
CV		0.0	7.83
Grand Mean		0.0	96.8
Levene's F		0.00	66.708
Levene's Prob(F)		0.00*	0.001*
Rank X2		.	.
P(Rank X2)		.	.
Skewness		.	-3.9749*
Kurtosis		.	16.0628*

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		
Pest Type			W Weed	
Pest Code			AMATA	
Pest Scientific Name			Amaranthus tamariscinus	
Pest Name			Common waterhemp	
Crop Type, Code	C GLXMA		C GLXMA	
BBCH Scale	BSOY		BSOY	
Crop Scientific Name	Glycine max		Glycine max	
Crop Name	Soybean		Soybean	
Rating Date	Aug-9-2019		Aug-9-2019	
Part Rated	PLOT -		PLOT -	
Rating Type	PHYGEN		CONTRO	
Rating Unit	%		%	
Sample Size				
Number of Subsamples	1		1	
Assessed By	J. HAARMANN		J. HAARMANN	
Data Entry Date	Jul-17-2019		Jul-17-2019	
Rating Timing	A5		A5	
Days After First/Last Applic.	85 44		85 44	
Trt-Eval Interval	21 DA-A		21 DA-A	
Plant-Eval Interval	85 DP-1		85 DP-1	
Days After Emergence	74 DE-1		74 DE-1	
ARM Action Codes	P		P	
Number of Decimals	0		0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	21	22
Replicate F	0.000		2.265	
Replicate Prob(F)	1.0000		0.0966	
Treatment F	0.000		4.049	
Treatment Prob(F)	1.0000		0.0004	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	23	24
1 UNTREATED CHECK	0	0
2 BOUNDARY	1.8 pt/a A	100 a
FLEXSTAR GT 3.5	3.5 pt/a C	
DUAL II MAGNUM	1.25 pt/a C	
MSO	1 % v/v C	
N-PAK AMS	2.5 % v/v C	
3 BOUNDARY	1.8 pt/a A	100 a
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	23	24
4 PREFIX	2 pt/a A	100 a
TRICOR 75 DF	6 oz/a A	100 a
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	
5 BROADAXE XC	25 fl oz/a A	100 a
TRICOR 75 DF	6 oz/a A	100 a
TAVIUM	56.5 fl oz/a C	
ROUNDUP POWERMAX	26 fl oz/a C	
INTACT	0.5 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Scientific Name		Setaria faberi	Ambrosia trifida	
Pest Name		Giant foxtail	Giant ragweed	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Aug-9-2019	Aug-9-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A5	A5	
Days After First/Last Applic.		85 44	85 44	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		85 DP-1	85 DP-1	
Days After Emergence		74 DE-1	74 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	23	24
6 TAVIUM	56.5 fl oz/a B		96 a	100 a
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B		87 a	100 a
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	23	24
8 FIERCE EZ	6 fl oz/a A	100 a
ROUNDUP POWERMAX	32 fl oz/a C	100 a
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	
9 FIERCE MTZ	1 pt/a A	100 a
ROUNDUP POWERMAX	32 fl oz/a C	
XTENDIMAX	22 fl oz/a C	
INTACT	0.5 % v/v C	
ACTIVATOR 90 NIS	0.25 % v/v C	
CLASS ACT RIDION	1 % v/v C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			

	W Weed	W Weed	
Pest Type	SETFA	AMBTR	
Pest Code	Setaria faberi	Ambrosia trifida	
Pest Scientific Name	Giant foxtail	Giant ragweed	
Pest Name	C GLXMA	C GLXMA	
Crop Type, Code	BSOY	BSOY	
BBCH Scale	Glycine max	Glycine max	
Crop Scientific Name	Soybean	Soybean	
Crop Name	Aug-9-2019	Aug-9-2019	
Rating Date	PLOT -	PLOT -	
Part Rated	CONTRO	CONTRO	
Rating Type	%	%	
Rating Unit			
Sample Size	1	1	
Number of Subsamples	J. HAARMANN	J. HAARMANN	
Assessed By	Jul-17-2019	Jul-17-2019	
Data Entry Date	A5	A5	
Rating Timing	85 44	85 44	
Days After First/Last Applic.	21 DA-A	21 DA-A	
Trt-Eval Interval	85 DP-1	85 DP-1	
Plant-Eval Interval	74 DE-1	74 DE-1	
Days After Emergence	P	P	
ARM Action Codes	0	0	
Number of Decimals			
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	23	24	
10 VALOR SX	1.96 oz/a	A	
TRICOR 4F	6 fl oz/a	A	
PROWL H2O	24 fl oz/a	A	
ROUNDUP POWERMAX	32 fl oz/a	C	
XTENDIMAX	22 fl oz/a	C	
INTACT	0.5 % v/v	C	
ACTIVATOR 90 NIS	0.25 % v/v	C	
CLASS ACT RIDION	1 % v/v	C	
11 FIERCE MTZ	1 pt/a	A	
ROUNDUP POWERMAX	32 fl oz/a	C	
FLEXSTAR	1.3 pt/a	C	
MSO	1 % v/v	C	
N-PAK AMS	2.5 % v/v	C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed	W Weed	
Pest Code		SETFA	AMBTR	
Pest Scientific Name		Setaria faberi	Ambrosia trifida	
Pest Name		Giant foxtail	Giant ragweed	
Crop Type, Code		C GLXMA	C GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Rating Date		Aug-9-2019	Aug-9-2019	
Part Rated		PLOT -	PLOT -	
Rating Type		CONTRO	CONTRO	
Rating Unit		%	%	
Sample Size				
Number of Subsamples		1	1	
Assessed By		J. HAARMANN	J. HAARMANN	
Data Entry Date		Jul-17-2019	Jul-17-2019	
Rating Timing		A5	A5	
Days After First/Last Applic.		85 44	85 44	
Trt-Eval Interval		21 DA-A	21 DA-A	
Plant-Eval Interval		85 DP-1	85 DP-1	
Days After Emergence		74 DE-1	74 DE-1	
ARM Action Codes		P	P	
Number of Decimals		0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	23	24
12 SONIC	5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
13 SURVEIL	3.5 oz/a	A	100 a	100 a
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed	W Weed		
Pest Code	SETFA	AMBTR		
Pest Scientific Name	Setaria faberi	Ambrosia trifida		
Pest Name	Giant foxtail	Giant ragweed		
Crop Type, Code	C GLXMA	C GLXMA		
BBCH Scale	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max		
Crop Name	Soybean	Soybean		
Rating Date	Aug-9-2019	Aug-9-2019		
Part Rated	PLOT -	PLOT -		
Rating Type	CONTRO	CONTRO		
Rating Unit	%	%		
Sample Size				
Number of Subsamples	1	1		
Assessed By	J. HAARMANN	J. HAARMANN		
Data Entry Date	Jul-17-2019	Jul-17-2019		
Rating Timing	A5	A5		
Days After First/Last Applic.	85 44	85 44		
Trt-Eval Interval	21 DA-A	21 DA-A		
Plant-Eval Interval	85 DP-1	85 DP-1		
Days After Emergence	74 DE-1	74 DE-1		
ARM Action Codes	P	P		
Number of Decimals	0	0		
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	23	24
14 TRIVENCE @10 OZ/A		A	99 a	100 a
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMBTR
Pest Scientific Name	Setaria faberi	Ambrosia trifida
Pest Name	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	Aug-9-2019	Aug-9-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Sample Size		
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Jul-17-2019
Rating Timing	A5	A5
Days After First/Last Applic.	85 44	85 44
Trt-Eval Interval	21 DA-A	21 DA-A
Plant-Eval Interval	85 DP-1	85 DP-1
Days After Emergence	74 DE-1	74 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	23	24
15 LPI-6634	2.8 pt/a A	100 a
MAKAZE	32 fl oz/a C	100 a
TOPGUN	16 fl oz/a C	
MSO	1 % v/v C	
LSD P=.05	16.5	9.6
Standard Deviation	11.6	6.7
CV	12.11	7.13
Grand Mean	95.5	93.7
Levene's F	6.067	0.991
Levene's Prob(F)	0.001*	0.477
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-5.0875*	-3.7051*
Kurtosis	28.7379*	12.5474*

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			
Trial ID: 19S-MGS-SOY-12	Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed	W Weed	
Pest Code	SETFA	AMBTR	
Pest Scientific Name	Setaria faberi	Ambrosia trifida	
Pest Name	Giant foxtail	Giant ragweed	
Crop Type, Code	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Rating Date	Aug-9-2019	Aug-9-2019	
Part Rated	PLOT -	PLOT -	
Rating Type	CONTRO	CONTRO	
Rating Unit	%	%	
Sample Size			
Number of Subsamples	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jul-17-2019	Jul-17-2019	
Rating Timing	A5	A5	
Days After First/Last Applic.	85 44	85 44	
Trt-Eval Interval	21 DA-A	21 DA-A	
Plant-Eval Interval	85 DP-1	85 DP-1	
Days After Emergence	74 DE-1	74 DE-1	
ARM Action Codes	P	P	
Number of Decimals	0	0	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			23 24
Replicate F	1.194	1.043	
Replicate Prob(F)	0.3246	0.3845	
Treatment F	4.203	48.988	
Treatment Prob(F)	0.0002	0.0001	

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Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva					
Pest Type	W Weed				
Pest Code	ABUTH				
Pest Scientific Name	Abutilon theophrasti				
Pest Name	velvetleaf				
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	YIELD	MOICON		
Rating Unit	%	lb/plot	%		
Sample Size		1 PLOT			
Number of Subsamples	1	1	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019
Rating Timing	A5	H1	H1	H1	H1
Days After First/Last Applic.	85 44	161 120	161 120	161 120	161 120
Trt-Eval Interval	21 DA-A				
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	161 DP-1	161 DP-1
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	150 DE-1	150 DE-1
ARM Action Codes	P				
Number of Decimals	0	1	1	1	1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	25	26	27
1 UNTREATED CHECK			0	3.0	11.6
2 BOUNDARY	1.8 pt/a	A	96 a	8.7 ab	13.9 a
FLEXSTAR GT 3.5	3.5 pt/a	C			
DUAL II MAGNUM	1.25 pt/a	C			
MSO	1 % v/v	C			
N-PAK AMS	2.5 % v/v	C			
3 BOUNDARY	1.8 pt/a	A	100 a	9.3 a	13.7 a
TAVIUM	56.5 fl oz/a	C			
ROUNDUP POWERMAX	26 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva					
Pest Type	W Weed				
Pest Code	ABUTH				
Pest Scientific Name	Abutilon theophrasti				
Pest Name	velvetleaf				
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	YIELD	MOICON		
Rating Unit	%	lb/plot	%		
Sample Size		1 PLOT			
Number of Subsamples	1	1	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019
Rating Timing	A5	H1	H1	H1	H1
Days After First/Last Applic.	85 44	161 120	161 120	161 120	161 120
Trt-Eval Interval	21 DA-A				
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	161 DP-1	161 DP-1
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	150 DE-1	150 DE-1
ARM Action Codes	P				
Number of Decimals	0	1	1	1	1
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	25	26	27
4 PREFIX	2 pt/a	A	100 a	8.1 ab	13.7 a
TRICOR 75 DF	6 oz/a	A			
TAVIUM	56.5 fl oz/a	C			
ROUNDUP POWERMAX	26 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			
5 BROADAXE XC	25 fl oz/a	A	100 a	7.2 b	13.9 a
TRICOR 75 DF	6 oz/a	A			
TAVIUM	56.5 fl oz/a	C			
ROUNDUP POWERMAX	26 fl oz/a	C			
INTACT	0.5 % v/v	C			
CLASS ACT RIDION	1 % v/v	C			

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed			
Pest Code	ABUTH			
Pest Scientific Name	Abutilon theophrasti			
Pest Name	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	
Part Rated	PLOT -	PLOT -	PLOT -	
Rating Type	CONTRO	YIELD	MOICON	
Rating Unit	%	lb/plot	%	
Sample Size		1 PLOT		
Number of Subsamples	1	1	1	
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	
Rating Timing	A5	H1	H1	
Days After First/Last Applic.	85 44	161 120	161 120	
Trt-Eval Interval	21 DA-A			
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	
ARM Action Codes	P			
Number of Decimals	0	1	1	
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	25	26	27
6 TAVIUM	56.5 fl oz/a B	96 a	8.8 a	13.9 a
ROUNDUP POWERMAX	26 fl oz/a B			
INTACT	0.5 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ROUNDUP POWERMAX	32 fl oz/a B	100 a	8.1 ab	14.2 a
XTENDIMAX	22 fl oz/a B			
INTACT	0.5 % v/v B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y	
Trial ID: 19S-MGS-SOY-12		Location: Meigs			
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson			
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer			
		Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type	W Weed				
Pest Code	ABUTH				
Pest Scientific Name	Abutilon theophrasti				
Pest Name	velvetleaf				
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	YIELD	MOICON		
Rating Unit	%	lb/plot	%		
Sample Size		1 PLOT			
Number of Subsamples	1	1	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019
Rating Timing	A5	H1	H1	H1	H1
Days After First/Last Applic.	85 44	161 120	161 120	161 120	161 120
Trt-Eval Interval	21 DA-A				
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	161 DP-1	161 DP-1
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	150 DE-1	150 DE-1
ARM Action Codes	P				
Number of Decimals	0	1	1	1	1
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code	25	26	27	
8 FIERCE EZ	6 fl oz/a A	99 a	8.3 ab	13.8 a	
ROUNDUP POWERMAX	32 fl oz/a C				
XTENDIMAX	22 fl oz/a C				
INTACT	0.5 % v/v C				
ACTIVATOR 90 NIS	0.25 % v/v C				
CLASS ACT RIDION	1 % v/v C				
9 FIERCE MTZ	1 pt/a A	100 a	8.5 ab	14.5 a	
ROUNDUP POWERMAX	32 fl oz/a C				
XTENDIMAX	22 fl oz/a C				
INTACT	0.5 % v/v C				
ACTIVATOR 90 NIS	0.25 % v/v C				
CLASS ACT RIDION	1 % v/v C				

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed		
Pest Code		ABUTH		
Pest Scientific Name		Abutilon theophrasti		
Pest Name		velvetleaf		
Crop Type, Code		C GLXMA	C GLXMA	C GLXMA
BBCH Scale		BSOY	BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max	Glycine max
Crop Name		Soybean	Soybean	Soybean
Rating Date		Aug-9-2019	Oct-24-2019	Oct-24-2019
Part Rated		PLOT -	PLOT -	PLOT -
Rating Type		CONTRO	YIELD	MOICON
Rating Unit		%	lb/plot	%
Sample Size			1 PLOT	
Number of Subsamples		1	1	1
Assessed By		J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date		Jul-17-2019	Oct-29-2019	Oct-29-2019
Rating Timing		A5	H1	H1
Days After First/Last Applic.		85 44	161 120	161 120
Trt-Eval Interval		21 DA-A		
Plant-Eval Interval		85 DP-1	161 DP-1	161 DP-1
Days After Emergence		74 DE-1	150 DE-1	150 DE-1
ARM Action Codes		P		
Number of Decimals		0	1	1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code		
			25	26
10 VALOR SX	1.96 oz/a	A	100 a	8.7 ab
TRICOR 4F	6 fl oz/a	A		
PROWL H2O	24 fl oz/a	A		
ROUNDUP POWERMAX	32 fl oz/a	C		
XTENDIMAX	22 fl oz/a	C		
INTACT	0.5 % v/v	C		
ACTIVATOR 90 NIS	0.25 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		
11 FIERCE MTZ	1 pt/a	A	97 a	5.1 c
ROUNDUP POWERMAX	32 fl oz/a	C		
FLEXSTAR	1.3 pt/a	C		
MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed			
Pest Code	ABUTH			
Pest Scientific Name	Abutilon theophrasti			
Pest Name	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	YIELD	MOICON	
Rating Unit	%	lb/plot	%	
Sample Size		1 PLOT		
Number of Subsamples	1	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019
Rating Timing	A5	H1	H1	H1
Days After First/Last Applic.	85 44	161 120	161 120	161 120
Trt-Eval Interval	21 DA-A			
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	161 DP-1
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	150 DE-1
ARM Action Codes	P			
Number of Decimals	0	1	1	1
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	25	26	27
12 SONIC	5 oz/a A	100 a	7.8 ab	13.9 a
FEXAPAN	22 fl oz/a C			
ROUNDUP POWERMAX	32 fl oz/a C			
INTACT	0.5 % v/v C			
CLASS ACT RIDION	1 % v/v C			
13 SURVEIL	3.5 oz/a A	100 a	8.0 ab	14.0 a
FEXAPAN	22 fl oz/a C			
ROUNDUP POWERMAX	32 fl oz/a C			
INTACT	0.5 % v/v C			
CLASS ACT RIDION	1 % v/v C			

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type		W Weed		
Pest Code		ABUTH		
Pest Scientific Name		Abutilon theophrasti		
Pest Name		velvetleaf		
Crop Type, Code		C GLXMA	C GLXMA	C GLXMA
BBCH Scale		BSOY	BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max	Glycine max
Crop Name		Soybean	Soybean	Soybean
Rating Date		Aug-9-2019	Oct-24-2019	Oct-24-2019
Part Rated		PLOT -	PLOT -	PLOT -
Rating Type		CONTRO	YIELD	MOICON
Rating Unit		%	lb/plot	%
Sample Size			1 PLOT	
Number of Subsamples		1	1	1
Assessed By		J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date		Jul-17-2019	Oct-29-2019	Oct-29-2019
Rating Timing		A5	H1	H1
Days After First/Last Applic.		85 44	161 120	161 120
Trt-Eval Interval		21 DA-A		
Plant-Eval Interval		85 DP-1	161 DP-1	161 DP-1
Days After Emergence		74 DE-1	150 DE-1	150 DE-1
ARM Action Codes		P		
Number of Decimals		0	1	1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code		
			25	26
14 TRIVENCE @10 OZ/A		A		27
CLASSIC	1.56 oz/a	A	100 a	8.6 ab
VALOR SX	2.5 oz/a	A		13.6 a
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				
Trial ID: 19S-MGS-SOY-12		Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed			
Pest Code	ABUTH			
Pest Scientific Name	Abutilon theophrasti			
Pest Name	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	YIELD	MOICON	
Rating Unit	%	lb/plot	%	
Sample Size		1 PLOT		
Number of Subsamples	1	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019
Rating Timing	A5	H1	H1	H1
Days After First/Last Applic.	85 44	161 120	161 120	161 120
Trt-Eval Interval	21 DA-A			
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	161 DP-1
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	150 DE-1
ARM Action Codes	P			
Number of Decimals	0	1	1	1
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	25	26	27
15 LPI-6634	2.8 pt/a A	100 a	8.8 a	13.7 a
MAKAZE	32 fl oz/a C			
TOPGUN	16 fl oz/a C			
MSO	1 % v/v C			
LSD P=.05		3.4	1.52	0.60
Standard Deviation		2.3	1.06	0.42
CV		2.37	13.06	3.02
Grand Mean		99.1	8.14	13.88
Levene's F		3.971	0.711	0.917
Levene's Prob(F)		0.001*	0.742	0.544
Rank X2		.	.	.
P(Rank X2)		.	.	.
Skewness		-2.9228*	0.2261	1.1474*
Kurtosis		7.29*	0.6386	1.3227*

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type	W Weed			
Pest Code	ABUTH			
Pest Scientific Name	Abutilon theophrasti			
Pest Name	velvetleaf			
Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Aug-9-2019	Oct-24-2019	Oct-24-2019	Oct-24-2019
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Type	CONTRO	YIELD	MOICON	
Rating Unit	%	lb/plot	%	
Sample Size		1 PLOT		
Number of Subsamples	1	1	1	1
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-17-2019	Oct-29-2019	Oct-29-2019	Oct-29-2019
Rating Timing	A5	H1	H1	H1
Days After First/Last Applic.	85 44	161 120	161 120	161 120
Trt-Eval Interval	21 DA-A			
Plant-Eval Interval	85 DP-1	161 DP-1	161 DP-1	161 DP-1
Days After Emergence	74 DE-1	150 DE-1	150 DE-1	150 DE-1
ARM Action Codes	P			
Number of Decimals	0	1	1	1
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	25	26	27
Replicate F		1.756	8.229	7.002
Replicate Prob(F)		0.1719	0.0002	0.0007
Treatment F		1.909	3.615	1.123
Treatment Prob(F)		0.0608	0.0010	0.3711

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

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Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code		C	GLXMA	
BBCH Scale			BSOY	
Crop Scientific Name			Glycine max	
Crop Name			Soybean	
Rating Date			Oct-24-2019	
Part Rated			PLOT -	
Rating Type			YIELD	
Rating Unit			BU	
Sample Size		1	A	
Number of Subsamples			1	
Assessed By		J.	HAARMANN	
Data Entry Date			Oct-29-2019	
Rating Timing			H1	
Days After First/Last Applic.		161	120	
Trt-Eval Interval				
Plant-Eval Interval		161	DP-1	
Days After Emergence		150	DE-1	
ARM Action Codes			TY1	
Number of Decimals			1	
Trt No.	Treatment Name	Rate	Appl Code	Mean
		Rate Unit		
1	UNTREATED CHECK			22.0
2	BOUNDARY	1.8 pt/a	A	62.1 ab
	FLEXSTAR GT 3.5	3.5 pt/a	C	
	DUAL II MAGNUM	1.25 pt/a	C	
	MSO	1 % v/v	C	
	N-PAK AMS	2.5 % v/v	C	
3	BOUNDARY	1.8 pt/a	A	66.6 a
	TAVIUM	56.5 fl oz/a	C	
	ROUNDUP POWERMAX	26 fl oz/a	C	
	INTACT	0.5 % v/v	C	
	CLASS ACT RIDION	1 % v/v	C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code	C	GLXMA		
BBCH Scale		BSOY		
Crop Scientific Name		Glycine max		
Crop Name		Soybean		
Rating Date	Oct-24-2019			
Part Rated	PLOT	-		
Rating Type		YIELD		
Rating Unit		BU		
Sample Size	1	A		
Number of Subsamples		1		
Assessed By	J. HAARMANN			
Data Entry Date	Oct-29-2019			
Rating Timing		H1		
Days After First/Last Applic.	161	120		
Trt-Eval Interval				
Plant-Eval Interval	161	DP-1		
Days After Emergence	150	DE-1		
ARM Action Codes		TY1		
Number of Decimals		1		
Trt No.	Treatment Name	Rate	Appl Unit	Code
				28
4	PREFIX	2 pt/a	A	58.5 ab
	TRICOR 75 DF	6 oz/a	A	
	TAVIUM	56.5 fl oz/a	C	
	ROUNDUP POWERMAX	26 fl oz/a	C	
	INTACT	0.5 % v/v	C	
	CLASS ACT RIDION	1 % v/v	C	
5	BROADAXE XC	25 fl oz/a	A	51.6 b
	TRICOR 75 DF	6 oz/a	A	
	TAVIUM	56.5 fl oz/a	C	
	ROUNDUP POWERMAX	26 fl oz/a	C	
	INTACT	0.5 % v/v	C	
	CLASS ACT RIDION	1 % v/v	C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		
Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C GLXMA		
BBCH Scale	BSOY		
Crop Scientific Name	Glycine max		
Crop Name	Soybean		
Rating Date	Oct-24-2019		
Part Rated	PLOT -		
Rating Type	YIELD		
Rating Unit	BU		
Sample Size	1 A		
Number of Subsamples	1		
Assessed By	J. HAARMANN		
Data Entry Date	Oct-29-2019		
Rating Timing	H1		
Days After First/Last Applic.	161 120		
Trt-Eval Interval			
Plant-Eval Interval	161 DP-1		
Days After Emergence	150 DE-1		
ARM Action Codes	TY1		
Number of Decimals	1		
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	28
6 TAVIUM	56.5 fl oz/a B		63.4 a
ROUNDUP POWERMAX	26 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		
7 ROUNDUP POWERMAX	32 fl oz/a B		58.3 ab
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
ACTIVATOR 90 NIS	0.25 % v/v B		
CLASS ACT RIDION	1 % 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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C	GLXMA	
BBCH Scale		BSOY	
Crop Scientific Name		Glycine max	
Crop Name		Soybean	
Rating Date	Oct-24-2019		
Part Rated	PLOT	-	
Rating Type		YIELD	
Rating Unit		BU	
Sample Size	1	A	
Number of Subsamples		1	
Assessed By	J. HAARMANN		
Data Entry Date	Oct-29-2019		
Rating Timing		H1	
Days After First/Last Applic.	161	120	
Trt-Eval Interval			
Plant-Eval Interval	161	DP-1	
Days After Emergence	150	DE-1	
ARM Action Codes		TY1	
Number of Decimals		1	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	28
8 FIERCE EZ	6 fl oz/a	A	60.1 ab
ROUNDUP POWERMAX	32 fl oz/a	C	
XTENDIMAX	22 fl oz/a	C	
INTACT	0.5 % v/v	C	
ACTIVATOR 90 NIS	0.25 % v/v	C	
CLASS ACT RIDION	1 % v/v	C	
9 FIERCE MTZ	1 pt/a	A	60.7 ab
ROUNDUP POWERMAX	32 fl oz/a	C	
XTENDIMAX	22 fl oz/a	C	
INTACT	0.5 % v/v	C	
ACTIVATOR 90 NIS	0.25 % v/v	C	
CLASS ACT RIDION	1 % v/v	C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C	GLXMA	
BBCH Scale		BSOY	
Crop Scientific Name		Glycine max	
Crop Name		Soybean	
Rating Date	Oct-24-2019		
Part Rated	PLOT	-	
Rating Type		YIELD	
Rating Unit		BU	
Sample Size	1	A	
Number of Subsamples		1	
Assessed By	J. HAARMANN		
Data Entry Date	Oct-29-2019		
Rating Timing		H1	
Days After First/Last Applic.	161	120	
Trt-Eval Interval			
Plant-Eval Interval	161	DP-1	
Days After Emergence	150	DE-1	
ARM Action Codes		TY1	
Number of Decimals		1	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	28
10 VALOR SX	1.96 oz/a	A	62.4 ab
TRICOR 4F	6 fl oz/a	A	
PROWL H2O	24 fl oz/a	A	
ROUNDUP POWERMAX	32 fl oz/a	C	
XTENDIMAX	22 fl oz/a	C	
INTACT	0.5 % v/v	C	
ACTIVATOR 90 NIS	0.25 % v/v	C	
CLASS ACT RIDION	1 % v/v	C	
11 FIERCE MTZ	1 pt/a	A	36.7 c
ROUNDUP POWERMAX	32 fl oz/a	C	
FLEXSTAR	1.3 pt/a	C	
MSO	1 % v/v	C	
N-PAK AMS	2.5 % v/v	C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code	C	GLXMA		
BBCH Scale		BSOY		
Crop Scientific Name		Glycine max		
Crop Name		Soybean		
Rating Date	Oct-24-2019			
Part Rated	PLOT	-		
Rating Type	YIELD			
Rating Unit	BU			
Sample Size	1	A		
Number of Subsamples		1		
Assessed By	J. HAARMANN			
Data Entry Date	Oct-29-2019			
Rating Timing	H1			
Days After First/Last Applic.	161	120		
Trt-Eval Interval				
Plant-Eval Interval	161	DP-1		
Days After Emergence	150	DE-1		
ARM Action Codes		TY1		
Number of Decimals		1		
Trt No.	Treatment Name	Rate	Appl Unit	Code
				28
12	SONIC	5 oz/a	A	56.1 ab
	FEXAPAN	22 fl oz/a	C	
	ROUNDUP POWERMAX	32 fl oz/a	C	
	INTACT	0.5 % v/v	C	
	CLASS ACT RIDION	1 % v/v	C	
13	SURVEIL	3.5 oz/a	A	57.6 ab
	FEXAPAN	22 fl oz/a	C	
	ROUNDUP POWERMAX	32 fl oz/a	C	
	INTACT	0.5 % v/v	C	
	CLASS ACT RIDION	1 % v/v	C	

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
				Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva
Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code		C	GLXMA	
BBCH Scale			BSOY	
Crop Scientific Name			Glycine max	
Crop Name			Soybean	
Rating Date			Oct-24-2019	
Part Rated			PLOT -	
Rating Type			YIELD	
Rating Unit			BU	
Sample Size		1	A	
Number of Subsamples			1	
Assessed By		J.	HAARMANN	
Data Entry Date			Oct-29-2019	
Rating Timing			H1	
Days After First/Last Applic.		161	120	
Trt-Eval Interval				
Plant-Eval Interval		161	DP-1	
Days After Emergence		150	DE-1	
ARM Action Codes			TY1	
Number of Decimals			1	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	28	
14 TRIVENCE @10 OZ/A		A	61.7	ab
CLASSIC	1.56 oz/a	A		
VALOR SX	2.5 oz/a	A		
TRICOR 75 DF	5.94 oz/a	A		
FEXAPAN	22 fl oz/a	C		
ROUNDUP POWERMAX	32 fl oz/a	C		
INTACT	0.5 % v/v	C		
CLASS ACT RIDION	1 % v/v	C		

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase				Trial Y
Trial ID: 19S-MGS-SOY-12		Location: Meigs		
Protocol ID: 19S-MGS-SOY-12		Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase		Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva				
Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Type, Code		C	GLXMA	
BBCH Scale			BSOY	
Crop Scientific Name			Glycine max	
Crop Name			Soybean	
Rating Date			Oct-24-2019	
Part Rated			PLOT -	
Rating Type			YIELD	
Rating Unit			BU	
Sample Size		1	A	
Number of Subsamples			1	
Assessed By		J.	HAARMANN	
Data Entry Date			Oct-29-2019	
Rating Timing			H1	
Days After First/Last Applic.		161	120	
Trt-Eval Interval				
Plant-Eval Interval		161	DP-1	
Days After Emergence		150	DE-1	
ARM Action Codes			TY1	
Number of Decimals			1	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	28	
15 LPI-6634	2.8 pt/a	A		63.4 a
MAKAZE	32 fl oz/a	C		
TOPGUN	16 fl oz/a	C		
MSO	1 % v/v	C		
LSD P=.05				10.92
Standard Deviation				7.63
CV				13.04
Grand Mean				58.52
Levene's F				0.774
Levene's Prob(F)				0.682
Rank X2				.
P(Rank X2)				.
Skewness				0.1951
Kurtosis				0.6442

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			
Trial ID: 19S-MGS-SOY-12	Location: Meigs		Trial Y
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva			
Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Type, Code	C	GLXMA	
BBCH Scale		BSOY	
Crop Scientific Name		Glycine max	
Crop Name		Soybean	
Rating Date	Oct-24-2019		
Part Rated	PLOT	-	
Rating Type		YIELD	
Rating Unit		BU	
Sample Size	1	A	
Number of Subsamples		1	
Assessed By	J. HAARMANN		
Data Entry Date	Oct-29-2019		
Rating Timing		H1	
Days After First/Last Applic.	161	120	
Trt-Eval Interval			
Plant-Eval Interval	161	DP-1	
Days After Emergence	150	DE-1	
ARM Action Codes		TY1	
Number of Decimals		1	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	28
Replicate F			7.828
Replicate Prob(F)			0.0003
Treatment F			3.657
Treatment Prob(F)			0.0009

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.

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,7,8,9,10,13,20,22,25,26,27,28

Could not calculate LSD (% mean diff) for columns 2,21 because error mean square = 0.

Purdue Weed Science

Soybean Herbicide Showcase			Trial Y
Trial ID: 19S-MGS-SOY-12	Location: Meigs		
Protocol ID: 19S-MGS-SOY-12	Investigator (Creator): Dr. Bill Johnson		
Project ID: Showcase	Study Director: Dustin Johnson & Marcelo Zimmer		
	Sponsor Contact: Syngenta-H051SMAD/Valent/Corteva		

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMATA, Amaranthus tamariscinus, Common waterhemp = US

SETFA, Setaria faberi, Giant foxtail = US

AMBTR, Ambrosia trifida, Giant ragweed = US

ABUTH, Abutilon theophrasti, velvetleaf = US

Crop Type, Code

C = EPPO species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

YIELD = yield

MOICON = moisture content

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

PLOT = total plot

A = acre

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

A5 = 5th Assessment According to Trial Schedule

H1 = 1st Harvest

Plant-Eval Interval

21 DP-1 = 1 GLXMA May-16-2019

41 DP-1 = 1 GLXMA May-16-2019

55 DP-1 = 1 GLXMA May-16-2019

68 DP-1 = 1 GLXMA May-16-2019

85 DP-1 = 1 GLXMA May-16-2019

161 DP-1 = 1 GLXMA May-16-2019

ARM Action Codes

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

TY1 = $7.26 * [26] * (100 - @MVAVGREP([27])) / 87$