

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08 Location: Meigs
 Protocol ID: 19S-MGS-SOY-08 Investigator (Creator): Dr. Bill Johnson
 Project ID: VUSA2019FIERCCEMD64.02 Study Director: Dustin Johnson & Marcelo Zimmer
 Sponsor Contact: E. Ott - Valent

General Trial Information

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

Trial Status: E established
ARM Trial Created On: Apr-23-2019

Trial Location

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

Latitude of LL Corner °: 40.26992 N
Longitude of LL Corner °: -86.88282 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: SPONSR
Sponsor: E. Ott - Valent

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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Valent Herbicide Programs in No-Till Xtend Soybeans

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Crop Description

Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-20-2019
Variety: XTEND AG30X8
Attributes: DICAMBA/RR
Planting Date: Jun-3-2019 **Planting Rate:** 160000 S/A
Depth: 1.25 IN
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** PP plot planter
Soil Temperature: 69 F **Soil Moisture:** SLIWET slightly wet, moist
Emergence Date: Jun-3-2019

Pest Description

Pest 1 Type: W **Code:** ERICA Erigeron canadensis **Entry Date:** May-14-2019
Common Name: Canada horseweed **Stage Scale:** BBCH

Pest 2 Type: W **Code:** LAMAM Lamium amplexicaule **Entry Date:** May-14-2019
Common Name: Henbit **Stage Scale:** BBCH

Pest 3 Type: W **Code:** RANAB Ranunculus abortivus **Entry Date:** May-14-2019
Common Name: Smallflower buttercup **Stage Scale:** BBCH

Pest 4 Type: W **Code:** CAPBP Capsella bursa-pastoris **Entry Date:** May-14-2019
Common Name: Shepherd's purse **Stage Scale:** BBCH

Pest 5 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** May-14-2019
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 6 Type: W **Code:** VERSS Veronica sp. **Entry Date:** May-14-2019
Common Name: Speedwell **Stage Scale:** BBCH

Pest 7 Type: W **Code:** AMATA Amaranthus tamariscinus **Entry Date:** Jun-25-2019
Common Name: Common waterhemp **Stage Scale:** BBCH

Pest 8 Type: W **Code:** SETFA Setaria faberi **Entry Date:** Jun-25-2019
Common Name: Giant foxtail **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 6.67 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 200.1 FT² **Treatments:** 10 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Cor

Field Prep./Maintenance:

6/17/19 Switched plot 105 & 205 due to spraying wrong, but cannot override the trial map in ARM.

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Soil Description

Description Name: MGS-S5

% Sand: 40.7 % OM: 2.3 Texture: L loam
 % Silt: 38.6 pH: 5.83 Soil Name: Starks-Fincastle complex
 % Clay: 20.7 CEC: 12.2 Fert. Level: G good

Application Description

	A	B
Application Date	May-6-2019	Jun-17-2019
Appl. Start Time	1:30 PM	1:40 PM
Appl. Stop Time	1:55 PM	2:10 PM
Interval to Prev. Appl.		42 DAYS
Application Method	SPRAY	SPRAY
Application Placement	BROADC	BROADC
Applied By	D. JOHNSON	C. HODGSKISS
Appl. Entry Date	May-14-2019	Jun-25-2019
Air Temperature Start, Stop	72 F	77 F
% Relative Humidity Start, Stop	59	77
Wind Velocity+Dir. Start	8 MPH SW	3 MPH E
Soil Temperature	68 F	78 F
Soil Moisture	WET	SLIWET
% Cloud Cover	10	100

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA BSOY	GLXMA BSOY
Days after Emergence	-28	14
Stage Scale Used		BBCH
Stage Majority, Percent	00	11
Stage Minimum, Percent	00	11
Stage Maximum, Percent	00	12
Diameter Average	0 IN	0 IN
Height Average	0 IN	3 IN
Height Minimum, Maximum	0 0	2 4

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	ERICA W BBCH	ERICA W BBCH

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 Protocol ID: 19S-MGS-SOY-08
 Project ID: VUSA2019FIERCCEMD64.02

Location: Meigs
 Investigator (Creator): Dr. Bill Johnson
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Stage Majority, Percent	19	00
Stage Minimum, Percent	19	00
Stage Maximum, Percent	19	00
Height Average	6 IN	0 IN
Height Minimum, Maximum	4 8	0 0
Density Average	1 FT2	0 FT2
Density Minimum, Maximum	0 2	0 0
Pest 2 Code, Type, Scale	LAMAM W BBCH	LAMAM W BBCH
Stage Majority, Percent	65	00
Stage Minimum, Percent	61	00
Stage Maximum, Percent	67	00
Height Average	12 IN	0 IN
Height Minimum, Maximum	10 14	0 0
Density Average	4 FT2	0 FT2
Density Minimum, Maximum	0 8	0 0
Pest 3 Code, Type, Scale	RANAB W BBCH	RANAB W BBCH
Stage Majority, Percent	65	00
Stage Minimum, Percent	61	00
Stage Maximum, Percent	67	00
Height Average	12 FT	0 IN
Height Minimum, Maximum	10 16	0 0
Density Average	4 FT2	0 FT2
Density Minimum, Maximum	0 8	0 0
Pest 4 Code, Type, Scale	CAPBP W BBCH	CAPBP W BBCH
Stage Majority, Percent	65	00
Stage Minimum, Percent	61	00
Stage Maximum, Percent	67	00
Height Average	16 IN	0 IN
Height Minimum, Maximum	12 20	0 0
Density Average	2 FT2	0 FT2
Density Minimum, Maximum	0 4	0 0
Pest 5 Code, Type, Scale	AMBTR W BBCH	AMBTR W BBCH
Stage Majority, Percent	16	19
Stage Minimum, Percent	14	12
Stage Maximum, Percent	19	19
Height Average	4 IN	6 IN
Height Minimum, Maximum	2 6	2 25

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Density Average	4 FT2	2 FT2
Density Minimum, Maximum	0 10	0 4
Pest 6 Code, Type, Scale	VERSS W BBCH	VERSS W BBCH
Stage Majority, Percent	65	00
Stage Minimum, Percent	61	00
Stage Maximum, Percent	67	00
Height Average	6 IN	0 IN
Height Minimum, Maximum	2 8	0 0
Density Average	5 FT2	0 FT2
Density Minimum, Maximum	0 10	0 0
Pest 7 Code, Type, Scale	AMATA W BBCH	AMATA W BBCH
Stage Majority, Percent	00	15
Stage Minimum, Percent	00	12
Stage Maximum, Percent	00	19
Height Average	0 IN	2 IN
Height Minimum, Maximum	0 0	0 9
Density Average	0 FT2	3 FT2
Density Minimum, Maximum	0 0	0 8

Application Equipment

	A	B
Appl. Equipment	CO2 BACKPACK	CO2 BACKPACK
Equipment Type	BACSPR	BACSPR
Operation Pressure	44 PSI	27 PSI
Nozzle Type	TTI	FLAFXR
Nozzle Size	110015	XR8002
Nozzle Spacing	20 IN	20 IN
Nozzles/Row	4	4
Boom Length	6.7 FT	6.67 FT
Boom Height	17 IN	17 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Size	1119 mL	1119 mL
Propellant	COMCO2	COMCO2

Treatment Appl. Comments

Trt No Treatment Application Comment

4 Switched plot 105 & 205 due to spraying 105 into 205. Can not override the trial map though

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so assessment data for 105 is in 205 and vice versa.

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-29-2019	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'E' when Rating Date entered.
APPLIC	Jun-17-2019	D. JOHNSON	Delayed spraying due to delayed of planting along with lack of weed emergence in plots. However, weeds there were bigger than application timing of 2-4" weeds.

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Reps: 4

Plots: 6.67 by 30 feet

Appl. Amount: 15 GAL/AC

Mix Size: 1119 mL (total for 4 plots; minimum=1043.3 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Amt Product to Measure	Rep 1	2	3	4
1	UNTREATED CHECK							101	305	502	504
2	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx	102	301	406	603
	XTENDIMAX	2.9 LBAE/GAL	SL		22 fl oz/a		12.82 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
	INTACT	100 %	L		0.5 % v/v		5.594 mL/mx				
	CLASS ACT RIDION	100 %	L		1 % v/v		11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
	N-PAK AMS	3.4 LBA/GAL	L		2.5 % v/v		27.97 mL/mx				
3	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx	103	204	405	506
	XTENDIMAX	2.9 LBAE/GAL	SL		22 fl oz/a		12.82 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
	INTACT	100 %	L		0.5 % v/v		5.594 mL/mx				
	CLASS ACT RIDION	100 %	L		1 % v/v		11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx				
	V-10440	2.3 LB/GAL	SC		6 fl oz/a		3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
N-PAK AMS	3.4 LBA/GAL	L		2.5 % v/v		27.97 mL/mx					
4	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx	104	205	501	604
	XTENDIMAX	2.9 LBAE/GAL	SL		22 fl oz/a		12.82 mL/mx				
	FIERCE EZ	3.04 LBA/GAL	SC		6 fl oz/a		3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
	INTACT	100 %	L		0.5 % v/v		5.594 mL/mx				
	CLASS ACT RIDION	100 %	L		1 % v/v		11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
N-PAK AMS	3.4 LBA/GAL	L		2.5 % v/v		27.97 mL/mx					
5	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx	105	306	402	505
	XTENDIMAX	2.9 LBAE/GAL	SL		22 fl oz/a		12.82 mL/mx				
	FIERCE MTZ	2.64 LBA/GAL	SC		1 pt/a		9.325 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
	INTACT	100 %	L		0.5 % v/v		5.594 mL/mx				
	CLASS ACT RIDION	100 %	L		1 % v/v		11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a		18.65 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL		0.25 % v/v		2.797 mL/mx				
N-PAK AMS	3.4 LBA/GAL	L		2.5 % v/v		27.97 mL/mx					

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Reps: 4

Plots: 6.67 by 30 feet

Appl. Amount: 15 GAL/AC

Mix Size: 1119 mL (total for 4 plots; minimum=1043.3 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Amt Product to Measure	Rep 1	2	3	4
6	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx	106	207	401	602
	XTENDIMAX	2.9 LBAE/GAL	SL	SL	22 fl oz/a	12.82 mL/mx				
	AUTHORITY MTZ	45 %	WG	WG	11 oz/a	6.146 g/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	INTACT	100 %	L	L	0.5 % v/v	5.594 mL/mx				
	CLASS ACT RIDION	100 %	L	L	1 % v/v	11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx				
	ANTHEM FLEX	4 LBA/GAL	SE	SE	2.5 fl oz/a	1.457 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	N-PAK AMS	3.4 LBA/GAL	L	L	2.5 % v/v	27.97 mL/mx				
7	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx	107	302	403	601
	XTENDIMAX	2.9 LBAE/GAL	SL	SL	22 fl oz/a	12.82 mL/mx				
	ZIDUA PRO	4.09 LB/GAL	SC	SC	6 fl oz/a	3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	INTACT	100 %	L	L	0.5 % v/v	5.594 mL/mx				
	CLASS ACT RIDION	100 %	L	L	1 % v/v	11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx				
	V-10440	2.3 LB/GAL	SC	SC	6 fl oz/a	3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	N-PAK AMS	3.4 LBA/GAL	L	L	2.5 % v/v	27.97 mL/mx				
8	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx	201	304	307	503
	XTENDIMAX	2.9 LBAE/GAL	SL	SL	22 fl oz/a	12.82 mL/mx				
	FIERCE EZ	3.04 LBA/GAL	SC	SC	6 fl oz/a	3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	INTACT	100 %	L	L	0.5 % v/v	5.594 mL/mx				
	CLASS ACT RIDION	100 %	L	L	1 % v/v	11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx				
	V-10440	2.3 LB/GAL	SC	SC	6 fl oz/a	3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	N-PAK AMS	3.4 LBA/GAL	L	L	2.5 % v/v	27.97 mL/mx				
9	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx	202	303	404	507
	XTENDIMAX	2.9 LBAE/GAL	SL	SL	22 fl oz/a	12.82 mL/mx				
	FIERCE MTZ	2.64 LBA/GAL	SC	SC	1 pt/a	9.325 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	INTACT	100 %	L	L	0.5 % v/v	5.594 mL/mx				
	CLASS ACT RIDION	100 %	L	L	1 % v/v	11.19 mL/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL	SL	32 fl oz/a	18.65 mL/mx				
	V-10440	2.3 LB/GAL	SC	SC	6 fl oz/a	3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %	SL	SL	0.25 % v/v	2.797 mL/mx				
	N-PAK AMS	3.4 LBA/GAL	L	L	2.5 % v/v	27.97 mL/mx				

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Reps: 4

Plots: 6.67 by 30 feet

Appl. Amount: 15 GAL/AC

Mix Size: 1119 mL (total for 4 plots; minimum=1043.3 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Amt Product to Measure	Rep 1	2	3	4
10	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a		18.65 mL/mx	203	206	407	605
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a		12.82 mL/mx				
	FIERCE XLT	62.41 %		WG	4 oz/a		2.235 g/mx				
	ACTIVATOR 90 NIS	100 %		SL	0.25 % v/v		2.797 mL/mx				
	INTACT	100 %		L	0.5 % v/v		5.594 mL/mx				
	CLASS ACT RIDION	100 %		L	1 % v/v		11.19 mL/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a		18.65 mL/mx				
	V-10440	2.3	LB/GAL	SC	6 fl oz/a		3.497 mL/mx				
	ACTIVATOR 90 NIS	100 %		SL	0.25 % v/v		2.797 mL/mx				
	N-PAK AMS	3.4	LBA/GAL	L	2.5 % v/v		27.97 mL/mx				

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
419.625	mL	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	
144.246	mL	XTENDIMAX	2.9	LBAE/GAL	SL	
62.937	mL	ACTIVATOR 90 NIS	100	%	SL	
62.937	mL	INTACT	100	%	L	
125.874	mL	CLASS ACT RIDION	100	%	L	
314.684	mL	N-PAK AMS	3.4	LBA/GAL	L	
21.855	mL	V-10440	2.3	LB/GAL	SC	
8.742	mL	FIERCE EZ	3.04	LBA/GAL	SC	
23.312	mL	FIERCE MTZ	2.64	LBA/GAL	SC	
7.682	g	AUTHORITY MTZ	45	%	WG	
1.821	mL	ANTHEM FLEX	4	LBA/GAL	SE	
4.371	mL	ZIDUA PRO	4.09	LB/GAL	SC	
2.793	g	FIERCE XLT	62.41	%	WG	

* 'Per area' calculations based on application amount= 15 GAL/AC, mix size= 1119 mL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 1119 mL.

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	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
1 UNTREATED CHECK		1
2 ROUNDUP POWERMAX	32 fl oz/a A	2
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

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Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		1
		2
3 ROUNDUP POWERMAX	32 fl oz/a A	92 a
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	95 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=8,11,12,15,19; Average=1
 Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		1
		2
4 ROUNDUP POWERMAX	32 fl oz/a A	95 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		1
		2
5 ROUNDUP POWERMAX	32 fl oz/a A	94 a
XTENDIMAX	22 fl oz/a A	
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
		99 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		1
		2
6 ROUNDUP POWERMAX	32 fl oz/a A	95 a
XTENDIMAX	22 fl oz/a A	100 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		1
		2
7 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
		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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	1	2
8 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		1
		2
9 ROUNDUP POWERMAX	32 fl oz/a A	94 a
XTENDIMAX	22 fl oz/a A	
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
		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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

W Weed	W Weed		
ERICA	LAMAM		
Erigeron canadensis	Lamium amplexicaule		
Canada horseweed	Henbit		
C GLXMA	C GLXMA		
BSOY	BSOY		
Glycine max	Glycine max		
Soybean	Soybean		
May-27-2019	May-27-2019		
PLOT -	PLOT -		
CONTRO	CONTRO		
%	%		
1	1		
D. JOHNSON	D. JOHNSON		
May-29-2019	May-29-2019		
A1	A1		
21 21	21 21		
21 DA-A	21 DA-A		
-7 DP-1	-7 DP-1		
-7 DE-1	-7 DE-1		
P	P		
0	0		
Trt Treatment	Rate Appl		
No. Name	Rate Unit Code	1	2
10 ROUNDUP POWERMAX	32 fl oz/a A	93 a	99 a
XTENDIMAX	22 fl oz/a A		
FIERCE XLT	4 oz/a A		
ACTIVATOR 90 NIS	0.25 % v/v A		
INTACT	0.5 % v/v A		
CLASS ACT RIDION	1 % v/v A		
ROUNDUP POWERMAX	32 fl oz/a B		
V-10440	6 fl oz/a B		
ACTIVATOR 90 NIS	0.25 % v/v B		
N-PAK AMS	2.5 % v/v B		
LSD P=.05		3.8	3.0
Standard Deviation		2.4	2.0
CV		2.55	2.05
Grand Mean		94.3	99.0
Levene's F		1.094	2.667

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	ERICA	LAMAM
Pest Scientific Name	Erigeron canadensis	Lamium amplexicaule
Pest Name	Canada horseweed	Henbit
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Appl Code	
	1	2
Levene's Prob(F)	0.409	0.027*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-0.359	-4.2793*
Kurtosis	-0.9328	20.9307*
Replicate F	2.447	0.675
Replicate Prob(F)	0.1240	0.5758
Treatment F	1.552	2.567
Treatment Prob(F)	0.2549	0.0353

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
1 UNTREATED CHECK		
2 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	3	4
3 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	3	4
4 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	3	4
5 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	3	4
6 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	3	4
7 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	3	4
8 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	3	4
9 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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.

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

	W Weed	W Weed
Pest Type	RANAB	CAPBP
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	3	4
Rate		
Rate Unit	100 a	100 a
Appl Code		
10 ROUNDUP POWERMAX		
XTENDIMAX		
FIERCE XLT		
ACTIVATOR 90 NIS		
INTACT		
CLASS ACT RIDION		
ROUNDUP POWERMAX		
V-10440		
ACTIVATOR 90 NIS		
N-PAK AMS		
LSD P=.05		1.2
Standard Deviation	0.0	0.8
CV	0.0	0.81
Grand Mean	100.0	99.8
Levene's F	0.00	1.931

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	RANAB	CAPBP
Pest Scientific Name	Ranunculus abortivus	Capsella bursa-pastoris
Pest Name	Smallflower buttercup	Shepherd's purse
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	May-27-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	D. JOHNSON
Data Entry Date	May-29-2019	May-29-2019
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	-7 DP-1	-7 DP-1
Days After Emergence	-7 DE-1	-7 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Appl Rate Unit Code	
	3	4
Levene's Prob(F)	0.00*	0.096
Rank X2	.	.
P(Rank X2)	.	.
Skewness	.	-5.1373*
Kurtosis	.	28.2836*
Replicate F	0.000	1.347
Replicate Prob(F)	1.0000	0.2826
Treatment F	0.000	1.463
Treatment Prob(F)	1.0000	0.2224

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
1 UNTREATED CHECK	5	6
	0	0
2 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	

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Untreated treatment(s) 1 excluded from analysis.

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Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	5	6
3 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	

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Untreated treatment(s) 1 excluded from analysis.

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Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	5	6
4 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	5	6
5 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	5	6
6 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	5	6
7 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	5	6
8 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	5	6
9 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	5	6
10 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05	.	0.5
Standard Deviation	0.0	0.3
CV	0.0	0.33
Grand Mean	100.0	99.9
Levene's F	0.00	

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	VERAR	ERICA
Pest Scientific Name	Veronica arvensis	Erigeron canadensis
Pest Name	Corn speedwell	Canada horseweed
Crop Type, Code	C GLXMA	C GLXMA
BBCH Scale	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max
Crop Name	Soybean	Soybean
Rating Date	May-27-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	D. JOHNSON	J. HAARMANN
Data Entry Date	May-29-2019	Jun-25-2019
Rating Timing	A1	A2
Days After First/Last Applic.	21 21	29 29
Trt-Eval Interval	21 DA-A	29 DA-A
Plant-Eval Interval	-7 DP-1	1 DP-1
Days After Emergence	-7 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	5	6
Levene's Prob(F)	0.00*	
Rank X2	.	.
P(Rank X2)	.	.
Skewness	.	-6.0*
Kurtosis	.	36.0*
Replicate F	0.000	1.000
Replicate Prob(F)	1.0000	0.4098
Treatment F	0.000	1.000
Treatment Prob(F)	1.0000	0.4613

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
1 UNTREATED CHECK	0	0
2 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	96 a	55 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		7
		8
3 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	25 c
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
4 ROUNDUP POWERMAX	32 fl oz/a A	97 a
XTENDIMAX	22 fl oz/a A	81 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
5 ROUNDUP POWERMAX	32 fl oz/a A	97 a
XTENDIMAX	22 fl oz/a A	92 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
6 ROUNDUP POWERMAX	32 fl oz/a A	98 a
XTENDIMAX	22 fl oz/a A	85 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
7 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	98 a
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		7 8
8 ROUNDUP POWERMAX	32 fl oz/a A	95 a 98 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
9 ROUNDUP POWERMAX	32 fl oz/a A	91 a
XTENDIMAX	22 fl oz/a A	93 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		7
		8
10 ROUNDUP POWERMAX	32 fl oz/a A	97 a
XTENDIMAX	22 fl oz/a A	
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05		8.9
Standard Deviation		6.1
CV		6.31
Grand Mean		96.4
Levene's F		0.665
		23.2
		15.9
		19.75
		80.5
		1.547

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Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMBTR	SETFA
Pest Scientific Name	Ambrosia trifida	Setaria faberi
Pest Name	Giant ragweed	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	Jun-4-2019	Jun-4-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A2
Days After First/Last Applic.	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A
Plant-Eval Interval	1 DP-1	1 DP-1
Days After Emergence	1 DE-1	1 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	7	8
Levene's Prob(F)	0.717	0.19
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-3.2401*	-1.7372*
Kurtosis	13.4833*	1.9275*
Replicate F	0.275	5.202
Replicate Prob(F)	0.8430	0.0069
Treatment F	0.646	9.769
Treatment Prob(F)	0.7315	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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
1 UNTREATED CHECK	0	0
2 ROUNDUP POWERMAX	32 fl oz/a A	34 b
XTENDIMAX	22 fl oz/a A	100 a
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	9	10
3 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	9	10
4 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	

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=8,11,12,15,19; Average=1

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	9	10
5 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	

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Untreated treatment(s) 1 excluded from analysis.

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Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Appl Code	
	9	10
6 ROUNDUP POWERMAX	32 fl oz/a A	97 a
XTENDIMAX	22 fl oz/a A	100 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	

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Untreated treatment(s) 1 excluded from analysis.

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Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	9	10
7 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

	W Weed	W Weed
Pest Type	AMATA	ERICA
Pest Code		
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Appl Code	
	9	10
8 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Appl Code	
	9	10
9 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	99 b
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

	W Weed	W Weed
Pest Type	AMATA	ERICA
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	9	10
Rate		
Rate Unit		
Appl Code		
10 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05	23.5	0.6
Standard Deviation	16.1	0.4
CV	19.16	0.39
Grand Mean	84.0	99.9
Levene's F	6.462	

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	ERICA
Pest Scientific Name	Amaranthus tamariscinus	Erigeron canadensis
Pest Name	Common waterhemp	Canada horseweed
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-4-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A2	A3
Days After First/Last Applic.	29 29	42 42
Trt-Eval Interval	29 DA-A	42 DA-A
Plant-Eval Interval	1 DP-1	14 DP-1
Days After Emergence	1 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	9	10
Levene's Prob(F)	0.001*	
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-1.9682*	-4.0514*
Kurtosis	2.5388*	15.2595*
Replicate F	0.728	1.000
Replicate Prob(F)	0.5451	0.4098
Treatment F	13.511	3.000
Treatment Prob(F)	0.0001	0.0176

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
1 UNTREATED CHECK	0	0
2 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	0 c	0 d

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	11	12
3 ROUNDUP POWERMAX	32 fl oz/a A	0 c
XTENDIMAX	22 fl oz/a A	0 d
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
4 ROUNDUP POWERMAX	32 fl oz/a A	91 ab
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	95 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=8,11,12,15,19; Average=1
 Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
5 ROUNDUP POWERMAX	32 fl oz/a A	98 a
XTENDIMAX	22 fl oz/a A	98 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
6 ROUNDUP POWERMAX	32 fl oz/a A	91 b
XTENDIMAX	22 fl oz/a A	79 c
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	11	12
7 ROUNDUP POWERMAX	32 fl oz/a A	98 a
XTENDIMAX	22 fl oz/a A	93 a
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
8 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	93 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
9 ROUNDUP POWERMAX	32 fl oz/a A	95 ab
XTENDIMAX	22 fl oz/a A	80 bc
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	11	12
10 ROUNDUP POWERMAX	32 fl oz/a A	95 ab
XTENDIMAX	22 fl oz/a A	93 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05	4.7	11.2
Standard Deviation	3.2	7.6
CV	4.32	10.97
Grand Mean	74.4	69.7
Levene's F	0.994	5.838

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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-17-2019	Jun-17-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A3
Days After First/Last Applic.	42 42	42 42
Trt-Eval Interval	42 DA-A	42 DA-A
Plant-Eval Interval	14 DP-1	14 DP-1
Days After Emergence	14 DE-1	14 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	11	12
Levene's Prob(F)	0.465	0.001*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-1.2712*	-1.1404*
Kurtosis	-0.3576	-0.5333
Replicate F	5.623	0.442
Replicate Prob(F)	0.0051	0.7255
Treatment F	692.861	109.515
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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
1 UNTREATED CHECK		13 14
2 ROUNDUP POWERMAX	32 fl oz/a A	0 0
XTENDIMAX	22 fl oz/a A	0 a 99 a
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
3 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	98 b
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
4 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
5 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
		13
		14
6 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
7 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	99 a
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
8 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	99 ab
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
9 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	99 ab
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13
		14
10 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05		1.7
Standard Deviation	0.0	1.2
CV	0.0	1.18
Grand Mean	0.0	99.2
Levene's F	0.00	6.431

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-17-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A3	A4
Days After First/Last Applic.	42 42	56 14
Trt-Eval Interval	42 DA-A	56 DA-A
Plant-Eval Interval	14 DP-1	28 DP-1
Days After Emergence	14 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		13 14
Levene's Prob(F)	0.00*	0.001*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	.	-1.7073*
Kurtosis	.	1.5934*
Replicate F	0.000	5.813
Replicate Prob(F)	1.0000	0.0039
Treatment F	0.000	2.358
Treatment Prob(F)	1.0000	0.0497

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
1 UNTREATED CHECK	0	0
2 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	25 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	15	16
3 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	67 b	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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
4 ROUNDUP POWERMAX	32 fl oz/a A	88 ab
XTENDIMAX	22 fl oz/a A	98 a
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
5 ROUNDUP POWERMAX	32 fl oz/a A	90 ab
XTENDIMAX	22 fl oz/a A	99 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
6 ROUNDUP POWERMAX	32 fl oz/a A	91 ab
XTENDIMAX	22 fl oz/a A	98 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	15	16
7 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	98 a	100 a

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
8 ROUNDUP POWERMAX	32 fl oz/a A	100 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
9 ROUNDUP POWERMAX	32 fl oz/a A	99 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
	15	16
10 ROUNDUP POWERMAX	32 fl oz/a A	98 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05	23.8	2.7
Standard Deviation	16.2	1.8
CV	19.4	1.86
Grand Mean	83.8	99.4
Levene's F	7.566	1.646

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	SETFA	AMATA
Pest Scientific Name	Setaria faberi	Amaranthus tamariscinus
Pest Name	Giant foxtail	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	Jul-1-2019	Jul-1-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A4
Days After First/Last Applic.	56 14	56 14
Trt-Eval Interval	56 DA-A	56 DA-A
Plant-Eval Interval	28 DP-1	28 DP-1
Days After Emergence	28 DE-1	28 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	15	16
Levene's Prob(F)	0.001*	0.158
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-2.0264*	-2.8898*
Kurtosis	3.4181*	7.5524*
Replicate F	1.394	0.939
Replicate Prob(F)	0.2699	0.4372
Treatment F	8.916	1.189
Treatment Prob(F)	0.0001	0.3459

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 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
2 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	100 a
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
3 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	95 a
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
4 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
5 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
6 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	99 a
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
7 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
ZIDUA PRO	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
8 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
9 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	99 a
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17
		18
10 ROUNDUP POWERMAX	32 fl oz/a A	0 a
XTENDIMAX	22 fl oz/a A	100 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05		3.6
Standard Deviation	0.0	2.5
CV	0.0	2.49
Grand Mean	0.0	99.1
Levene's F	0.00	2.485

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type		W Weed
Pest Code		ERICA
Pest Scientific Name		Erigeron canadensis
Pest Name		Canada horseweed
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-1-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A4	A5
Days After First/Last Applic.	56 14	70 28
Trt-Eval Interval	56 DA-A	70 DA-A
Plant-Eval Interval	28 DP-1	42 DP-1
Days After Emergence	28 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
		17 18
Levene's Prob(F)	0.00*	0.037*
Rank X2	.	.
P(Rank X2)	.	.
Skewness	.	-4.1055*
Kurtosis	.	18.9023*
Replicate F	0.000	2.419
Replicate Prob(F)	1.0000	0.0910
Treatment F	0.000	1.744
Treatment Prob(F)	1.0000	0.1391

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 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 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	8 e	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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	19	20
3 ROUNDUP POWERMAX	32 fl oz/a A	31 d
XTENDIMAX	22 fl oz/a A	100 a
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Code	
	19	20
4 ROUNDUP POWERMAX	32 fl oz/a A	82 b
XTENDIMAX	22 fl oz/a A	93 bc
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	19	20
5 ROUNDUP POWERMAX	32 fl oz/a A	92 ab
XTENDIMAX	22 fl oz/a A	96 ab
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit Appl Code	
	19	20
6 ROUNDUP POWERMAX	32 fl oz/a A	
XTENDIMAX	22 fl oz/a A	
AUTHORITY MTZ	11 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
ANTHEM FLEX	2.5 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
	64 c	88 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	19	20
7 ROUNDUP POWERMAX	32 fl oz/a A	93 ab
XTENDIMAX	22 fl oz/a A	
ZIDUA PRO	6 fl oz/a A	98 ab
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate Appl	
No. Name	Rate Unit Code	
	19	20
8 ROUNDUP POWERMAX	32 fl oz/a A	97 a
XTENDIMAX	22 fl oz/a A	
FIERCE EZ	6 fl oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
		99 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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	Rate Unit	Appl Code
		19
		20
9 ROUNDUP POWERMAX	32 fl oz/a A	96 a
XTENDIMAX	22 fl oz/a A	
FIERCE MTZ	1 pt/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
		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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

	W Weed	W Weed
Pest Type	AMATA	PANDI
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment		
No. Name	19	20
Rate		
Rate Unit		
Appl Code		
10 ROUNDUP POWERMAX	32 fl oz/a A	91 ab
XTENDIMAX	22 fl oz/a A	100 a
FIERCE XLT	4 oz/a A	
ACTIVATOR 90 NIS	0.25 % v/v A	
INTACT	0.5 % v/v A	
CLASS ACT RIDION	1 % v/v A	
ROUNDUP POWERMAX	32 fl oz/a B	
V-10440	6 fl oz/a B	
ACTIVATOR 90 NIS	0.25 % v/v B	
N-PAK AMS	2.5 % v/v B	
LSD P=.05	12.4	5.6
Standard Deviation	8.5	3.8
CV	11.67	3.94
Grand Mean	72.5	96.8
Levene's F	1.664	1.942

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type	W Weed	W Weed
Pest Code	AMATA	PANDI
Pest Scientific Name	Amaranthus tamariscinus	Panicum dichotomiflorum
Pest Name	Common waterhemp	Fall panicum
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-15-2019	Jul-15-2019
Part Rated	PLOT -	PLOT -
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jun-25-2019	Jun-25-2019
Rating Timing	A5	A5
Days After First/Last Applic.	70 28	70 28
Trt-Eval Interval	70 DA-A	70 DA-A
Plant-Eval Interval	42 DP-1	42 DP-1
Days After Emergence	42 DE-1	42 DE-1
ARM Action Codes	P	P
Number of Decimals	0	0
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
	19	20
Levene's Prob(F)	0.159	0.094
Rank X2	.	.
P(Rank X2)	.	.
Skewness	-1.2713*	-2.4676*
Kurtosis	0.2516	7.4087*
Replicate F	2.054	1.604
Replicate Prob(F)	0.1370	0.2146
Treatment F	58.686	4.978
Treatment Prob(F)	0.0001	0.0010

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=8,11,12,15,19; Average=1

Could not calculate LSD (% mean diff) for columns 3,5,13,17 because error mean square = 0.

Purdue Weed Science

Valent Herbicide Programs in No-Till Xtend Soybeans

Trial ID: 19S-MGS-SOY-08	Location: Meigs
Protocol ID: 19S-MGS-SOY-08	Investigator (Creator): Dr. Bill Johnson
Project ID: VUSA2019FIERCCEMD64.02	Study Director: Dustin Johnson & Marcelo Zimmer
	Sponsor Contact: E. Ott - Valent

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ERICA, Erigeron canadensis, Canada horseweed = US
 LAMAM, Lamium amplexicaule, Herbit = US
 RANAB, Ranunculus abortivus, Smallflower buttercup = US
 CAPBP, Capsella bursa-pastoris, Shepherd's purse = US
 VERAR, Veronica arvensis, Corn speedwell = US
 AMBTR, Ambrosia trifida, Giant ragweed = US
 SETFA, Setaria faberi, Giant foxtail = US
 AMATA, Amaranthus tamariscinus, Common waterhemp = US
 PANDI, Panicum dichotomiflorum, Fall panicum = US

Crop Type, Code

C = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule
 A2 = 2nd Assessment According to trial Schedule
 A3 = 3rd Assessment According to Trial Schedule
 A4 = 4th Assessment According to Trial Schedule
 A5 = 5th Assessment According to Trial Schedule

Plant-Eval Interval

-7 DP-1 = 1 GLXMA Jun-3-2019
 1 DP-1 = 1 GLXMA Jun-3-2019
 14 DP-1 = 1 GLXMA Jun-3-2019
 28 DP-1 = 1 GLXMA Jun-3-2019
 42 DP-1 = 1 GLXMA Jun-3-2019

ARM Action Codes

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