

# Purdue Weed Science

**Fierce plus Dicamba - Burndown**  
 Trial ID: 18S-MGS-Soy-04 Location: Meigs Trial Year: 2018  
 Protocol ID: 18S-MGS-Soy-04 Investigator: Dr. Bill Johnson  
 Project ID: VUSA2018FIERCEMD64.06 Study Director: Taylor Campbell  
 Sponsor Contact: Valent-Eric Ott

## General Trial Information

**Study Director:** Taylor Campbell  
**Investigator:** Dr. Bill Johnson

**Discipline:** H herbicide  
**Trial Status:** E established

## Trial Location

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

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

## Contacts

**Study Director:** Taylor Campbell  
**Organization:** Purdue University  
**Address:** 915 W State Street  
**City+State/Prov:** West Lafayette, IN  
**Postal Code:** 47907  
**Country:** USA United States

**Investigator:** Dr. Bill Johnson  
**Organization:** Purdue University  
**Address:** 915 W State Street  
**City+State/Prov:** West Lafayette, IN  
**Postal Code:** 47907  
**Country:** USA United States

## Cooperator/Landowner

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

## Crop Description

**Crop 1:** GLXMA Glycine max Soybean  
**Variety:** AG30X6  
**Description:** Xtend Roundup Ready

**Planting Date:** 5/29/2018  
**Planting Method:** PLANTD planted  
**Planting Equipment:** PP plot planter  
**Planting Rate, Unit:** 140000 S/A  
**Depth, Unit:** 1 IN  
**Row Spacing, Unit:** 30 IN  
**Rows per Plot:** 4  
**Soil Temperature, Unit:** 90  
**Soil Moisture:** DRY dry

## Pest Description

**Pest 1 Type:** W **Code:** AMATA *Amaranthus tamariscinus*  
**Common Name:** Common waterhemp

**Pest 2 Type:** W **Code:** ERICA *Erigeron canadensis*  
**Common Name:** Canada horseweed

**Pest 3 Type:** W **Code:** AMBTR *Ambrosia trifida*  
**Common Name:** Giant ragweed

## Site and Design

**Treated Plot Width:** 6.67 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 200.1 FT2 **Treatments:** 10  
**Replications:** 4  
**Site Type:** FIELD field  
**Experimental Unit:** 1 PLOT plot  
**Tillage Type:** NOTILL no-till  
**Study Design:** RACOB� Randomized Complete Block (RCB)

## Soil Description

**Description Name:** MGS-S5  
**% Sand:** 40.7 **% OM:** 2.3 **Texture:** L loam  
**% Silt:** 38.6 **pH:** 6.5 **Soil Name:** Starks-Fincastle complex  
**% Clay:** 20.7 **CEC:** 14.3 **Fert. Level:** G good

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### Application Description

	A	B
<b>Application Date:</b>	5/17/2018	6/28/2018
<b>Appl. Start Time:</b>	11:22 AM	12:06 PM
<b>Appl. Stop Time:</b>	11:43 AM	12:34 PM
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	EARPRE	POSPOS
<b>Application Placement:</b>	BROADC	BROADC
<b>Applied By:</b>	M. Zimmer	T. Campbell
<b>Air Temperature, Unit:</b>	83 F	92 F
<b>% Relative Humidity:</b>	39	75
<b>Wind Velocity, Unit:</b>	7.5 MPH	3 MPH
<b>Wind Direction:</b>	SW	W
<b>Dew Presence (Y/N):</b>	N no	N no
<b>Soil Temperature, Unit:</b>	78 F	90 F
<b>Soil Moisture:</b>	DRY	SLIWET
<b>% Cloud Cover:</b>	50	30

### Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale:</b>	GLXMA BSOY	GLXMA BSOY
<b>Stage Scale Used:</b>		BBCH
<b>Stage Majority, Percent:</b>		14 60
<b>Stage Minimum, Percent:</b>		14 60
<b>Stage Maximum, Percent:</b>		15 40
<b>Average Diameter, Unit:</b>		7 IN
<b>Height, Unit:</b>		10 IN
<b>Height Minimum, Maximum:</b>		8 12

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### Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale:</b>	AMATA W	AMATA W
<b>Stage Majority, Percent:</b>		14 60
<b>Stage Minimum, Percent:</b>		12 20
<b>Stage Maximum, Percent:</b>		16 20
<b>Diameter, Unit:</b>		2 IN
<b>Height, Unit:</b>		3 IN
<b>Height Minimum, Maximum:</b>		1 4
<b>Density, Unit:</b>		4 FT2
<b>Pest 2 Code, Type, Scale:</b>	ERICA W	ERICA W
<b>Stage Majority, Percent:</b>	14 40	18 50
<b>Stage Minimum, Percent:</b>	10 50	16 30
<b>Stage Maximum, Percent:</b>	30 10	24 20
<b>Diameter, Unit:</b>	4 IN	3 IN
<b>Height, Unit:</b>	3 IN	3 IN
<b>Height Minimum, Maximum:</b>	1 4	1 4
<b>Density, Unit:</b>	2 FT2	2 FT2
<b>Pest 3 Code, Type, Scale:</b>	AMBTR W	AMBTR W
<b>Stage Majority, Percent:</b>	17 50	17 50
<b>Stage Minimum, Percent:</b>	16 30	14 20
<b>Stage Maximum, Percent:</b>	19 20	19 30
<b>Diameter, Unit:</b>	4 IN	4 IN
<b>Height, Unit:</b>	5 IN	4 IN
<b>Height Minimum, Maximum:</b>	3 8	1 6
<b>Density, Unit:</b>	6 FT2	4 FT2

### Application Equipment

	A	B
<b>Appl. Equipment:</b>	CO2 BACKPACK	CO2 BACKPACK
<b>Equipment Type:</b>	BACCAI	BACCAI
<b>Operation Pressure, Unit:</b>	44 PSI	43 PSI
<b>Nozzle Type:</b>	TTI	TTI
<b>Nozzle Size:</b>	11015	11015
<b>Nozzle Spacing, Unit:</b>	20 IN	20 IN
<b>Nozzles/Row:</b>	4	4
<b>Boom Length, Unit:</b>	6.7 FT	6.7 FT
<b>Boom Height, Unit:</b>	23 IN	30 IN
<b>Ground Speed, Unit:</b>	3 MPH	3 MPH
<b>Carrier:</b>	WATER	
<b>Spray Volume, Unit:</b>	15 GAL/AC	15 GAL/AC
<b>Mix Overage, Unit:</b>		0 mL
<b>Mix Size, Unit:</b>	1119 mL	1119 mL
<b>Propellant:</b>	COMCO2	COMCO2

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Project ID: VUSA2018FIERCEMD64.06	Study Director: Taylor Campbell
Sponsor Contact: Valent-Eric Ott	

Reps: 4      Appl Code: A      Plots: 6.67 by 30 feet  
 Spray vol: 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	Appl Code	Amt Product to Measure	Rep			
								1	2	3	4
2	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx	102	301	307	603
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				
3	ZIDUA PRO	4.09	LBA/GAL	SC	6 fl oz/a	A	3.497 mL/mx	103	205	402	507
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
4	VALOR EZ1	4	LBA/GAL	SC	2.5 fl oz/a	A	1.457 mL/mx	104	306	405	506
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
5	FIERCE	76 %	W/W	WG	3 oz wt/a	A	1.676 g/mx	105	206	401	605
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
6	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				
	FIERCE	76 %	W/W	WG	3.75 oz wt/a	A	2.095 g/mx	106	204	501	602
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
7	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				
	FIERCE MTZ SC (2030)	2.64	LBA/GAL	SC	1 pt/a	A	9.325 mL/mx	107	302	404	505
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
8	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				
	AUTHORITY SUPREME	4.16	LBA/GAL	SC	7.7 fl oz/a	A	4.488 mL/mx	201	207	406	504
9	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				
10	AUTHORITY MTZ	45 %	W/W	WG	11 oz wt/a	A	6.146 g/mx	202	303	407	503
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
10	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				
	V-10452	3.04	LBA/GAL	SC	6 fl oz/a	A	3.497 mL/mx	203	304	502	601
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A	18.65 mL/mx				
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	A	12.82 mL/mx				
10	INTACT	100 %	W/W	AJ	0.5 % v/v	A	5.594 mL/mx				
	CLASS ACT RIDION	100 %		L	1 % v/v	A	11.19 mL/mx				

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Project ID: VUSA2018FIERCEMD64.06	Study Director: Taylor Campbell
Sponsor Contact: Valent-Eric Ott	

Reps: 4      Appl Code: B      Plots: 6.67 by 30 feet  
 Spray vol: 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	Appl Code	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
2	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		102	301	307	603
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
3	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		103	205	402	507
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
4	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		104	306	405	506
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
5	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		105	206	401	605
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
6	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		106	204	501	602
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
7	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		107	302	404	505
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
8	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		201	207	406	504
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
9	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		202	303	407	503
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					
10	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		18.65 mL/mx		203	304	502	601
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		12.82 mL/mx					
	INTACT	100 %	W/W	AJ	0.5 % v/v	B		5.594 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		11.19 mL/mx					

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<b>Fierce plus Dicamba - Burndown</b>	
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Protocol ID: 18S-MGS-Soy-04	Investigator: Dr. Bill Johnson
Project ID: VUSA2018FIERCEMD64.06	Study Director: Taylor Campbell
Sponsor Contact: Valent-Eric Ott	

Reps: 4      Appl Code: \_      Plots: 6.67 by 30 feet  
 Spray vol: 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 Unit	Appl Code	Amt Product to Measure	Rep			
								1	2	3	4
1	UNTREATED CHECK							101	305	403	604

Sort Order: Application Code, 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	
288.492	mL	XTENDIMAX	2.9	LBAE/GAL	SL	
125.874	mL	INTACT	100	%W/W	AJ	
251.748	mL	CLASS ACT RIDION	100	%	L	
4.371	mL	ZIDUA PRO	4.09	LBA/GAL	SC	
1.821	mL	VALOR EZ1	4	LBA/GAL	SC	
4.714	g	FIERCE	76	%W/W	WG	
11.656	mL	FIERCE MTZ SC (2030)	2.64	LBA/GAL	SC	
5.610	mL	AUTHORITY SUPREME	4.16	LBA/GAL	SC	
7.682	g	AUTHORITY MTZ	45	%W/W	WG	
4.371	mL	V-10452	3.04	LBA/GAL	SC	

\* 'Per area' calculations based on spray volume= 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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Pest Type	W Weed	W Weed		W Weed	W Weed	
Pest Code	ERICA	AMBTR		ERICA	AMBTR	
Pest Name	Canada horsewe>	Giant ragweed		Canada horsewe>	Giant ragweed	
Crop Code			GLXMA			
Crop Name			Soybean			
Part Rated			PLOT C			
Rating Date	PLOT P	PLOT P	6/12/2018	PLOT P	PLOT P	6/12/2018
Rating Type	5/29/2018	5/29/2018	PHYGEN	6/12/2018	6/12/2018	6/12/2018
Rating Unit	CONTRO	CONTRO	%	CONTRO	CONTRO	CONTRO
Number of Subsamples	%	%	%	%	%	%
Assessed By	1	1	1	1	1	1
	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	12 12	12 12	26 26	26 26	26 26	26 26
Trt-Eval Interval	12 DA-A	12 DA-A	26 DA-A	26 DA-A	26 DA-A	26 DA-A
Days After Emergence	-5 DE-1	-5 DE-1	9 DE-1	9 DE-1	9 DE-1	9 DE-1
Number of Decimals	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	1	2	3	4
1 UNTREATED CHECK			0	0	0	0
2 ROUNDUP POWERMAX	32 fl oz/a A		58 -	70 -	0 -	100 -
XTENDIMAX	22 fl oz/a A					61 cd
INTACT	0.5 % v/v A					
CLASS ACT RIDION	1 % v/v A					
ROUNDUP POWERMAX	32 fl oz/a B					
XTENDIMAX	22 fl oz/a B					
INTACT	0.5 % v/v B					
CLASS ACT RIDION	1 % v/v B					
3 ZIDUA PRO	6 fl oz/a A		89 -	74 -	0 -	99 -
ROUNDUP POWERMAX	32 fl oz/a A					94 a
XTENDIMAX	22 fl oz/a A					
INTACT	0.5 % v/v A					
CLASS ACT RIDION	1 % v/v A					
ROUNDUP POWERMAX	32 fl oz/a B					
XTENDIMAX	22 fl oz/a B					
INTACT	0.5 % v/v B					
CLASS ACT RIDION	1 % v/v B					
4 VALOR EZ1	2.5 fl oz/a A		70 -	60 -	0 -	98 -
ROUNDUP POWERMAX	32 fl oz/a A					88 ab
XTENDIMAX	22 fl oz/a A					
INTACT	0.5 % v/v A					
CLASS ACT RIDION	1 % v/v A					
ROUNDUP POWERMAX	32 fl oz/a B					
XTENDIMAX	22 fl oz/a B					
INTACT	0.5 % v/v B					
CLASS ACT RIDION	1 % v/v B					
5 FIERCE	3 oz wt/a A		63 -	68 -	0 -	97 -
ROUNDUP POWERMAX	32 fl oz/a A					95 a
XTENDIMAX	22 fl oz/a A					
INTACT	0.5 % v/v A					
CLASS ACT RIDION	1 % v/v A					
ROUNDUP POWERMAX	32 fl oz/a B					
XTENDIMAX	22 fl oz/a B					
INTACT	0.5 % v/v B					
CLASS ACT RIDION	1 % v/v B					
6 FIERCE	3.75 oz wt/a A		65 -	60 -	0 -	96 -
ROUNDUP POWERMAX	32 fl oz/a A					82 ab
XTENDIMAX	22 fl oz/a A					
INTACT	0.5 % v/v A					
CLASS ACT RIDION	1 % v/v A					
ROUNDUP POWERMAX	32 fl oz/a B					
XTENDIMAX	22 fl oz/a B					
INTACT	0.5 % v/v B					
CLASS ACT RIDION	1 % v/v B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Untreated treatment(s) 1 excluded from analysis.  
 Missing data estimates are included in columns:Yates=6,9  
 Could not calculate LSD (% mean diff) for columns 3 because error mean square = 0.

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Pest Type	W Weed	W Weed		W Weed	W Weed
Pest Code	ERICA	AMBTR		ERICA	AMBTR
Pest Name	Canada horsewe>	Giant ragweed		Canada horsewe>	Giant ragweed
Crop Code			GLXMA		
Crop Name			Soybean		
Part Rated			PLOT C		
Rating Date	PLOT P	PLOT P	6/12/2018	PLOT P	PLOT P
Rating Type	5/29/2018	5/29/2018	PHYGEN	6/12/2018	6/12/2018
Rating Unit	CONTRO	CONTRO	%	CONTRO	CONTRO
Number of Subsamples	%	%	1	%	%
Assessed By	1	1	T. Campbell	1	1
Days After First/Last Applic.	T. Campbell	T. Campbell		T. Campbell	T. Campbell
Trt-Eval Interval	12 12	12 12	26 26	26 26	26 26
Days After Emergence	12 DA-A	12 DA-A	26 DA-A	26 DA-A	26 DA-A
Number of Decimals	-5 DE-1	-5 DE-1	9 DE-1	9 DE-1	9 DE-1
	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	1	2	3
7 FIERCE MTZ SC (2030)	1 pt/a	A	88 -	85 -	0 -
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
8 AUTHORITY SUPREME	7.7 fl oz/a	A	60 -	60 -	0 -
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
9 AUTHORITY MTZ	11 oz wt/a	A	76 -	50 -	0 -
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			

Means followed by same letter or symbol do not significantly differ (P=,05, LSD)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Untreated treatment(s) 1 excluded from analysis.  
 Missing data estimates are included in columns: Yates=6,9  
 Could not calculate LSD (% mean diff) for columns 3 because error mean square = 0.



## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>						
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018				
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson				
Project ID: VUSA2018FIERCAMD64.06		Study Director: Taylor Campbell				
		Sponsor Contact: Valent-Eric Ott				
Pest Type	W Weed	W Weed		W Weed	W Weed	
Pest Code	ERICA	AMBTR		ERICA	AMBTR	
Pest Name	Canada horsewe>	Giant ragweed		Canada horsewe>	Giant ragweed	
Crop Code			GLXMA			
Crop Name			Soybean			
Part Rated			PLOT C			
Rating Date	PLOT P	PLOT P	6/12/2018	PLOT P	PLOT P	6/12/2018
Rating Type	5/29/2018	5/29/2018	PHYGEN	6/12/2018	6/12/2018	6/12/2018
Rating Unit	CONTRO	CONTRO		CONTRO	CONTRO	CONTRO
Number of Subsamples	%	%	%	%	%	%
Assessed By	1	1	1	1	1	1
Days After First/Last Applic.	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell
Trt-Eval Interval	12 12	12 12	26 26	26 26	26 26	26 26
Days After Emergence	12 DA-A	12 DA-A	26 DA-A	26 DA-A	26 DA-A	26 DA-A
Number of Decimals	-5 DE-1	-5 DE-1	9 DE-1	9 DE-1	9 DE-1	9 DE-1
	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	1	2	3	4
10 V-10452	6 fl oz/a	A	75 -	70 -	0 -	100 -
ROUNDUP POWERMAX	32 fl oz/a	A				
XTENDIMAX	22 fl oz/a	A				
INTACT	0.5 % v/v	A				
CLASS ACT RIDION	1 % v/v	A				
ROUNDUP POWERMAX	32 fl oz/a	B				
XTENDIMAX	22 fl oz/a	B				
INTACT	0.5 % v/v	B				
CLASS ACT RIDION	1 % v/v	B				
LSD P=.05	25.8	26.3	.	4.0	20.1	
Standard Deviation	17.7	18.0	0.0	2.8	13.8	
CV	24.74	27.22	0.0	2.82	17.73	
Levene's F	0.904	3.322	0.00	1.026	0.861	
Levene's Prob(F)	0.527	0.009*	0.00*	0.441	0.56	
Skewness	0.1038	0.5315	.	-1.7336*	-0.8637*	
Kurtosis	-1.3918	-0.8731	.	2.2664*	-0.3474	
Replicate F	1.843	0.506	0.000	0.300	4.914	
Replicate Prob(F)	0.1663	0.6818	1.0000	0.8249	0.0084	
Treatment F	1.670	1.232	0.000	1.096	4.343	
Treatment Prob(F)	0.1576	0.3234	1.0000	0.3999	0.0024	

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>					
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018			
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson			
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell			
		Sponsor Contact: Valent-Eric Ott			
Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMATA	ERICA	AMBTR	AMATA	ERICA
Pest Name	Common waterhe>	Canada horsewe>	Giant ragweed	Common waterhe>	Canada horsewe>
Crop Code					
Crop Name					
Part Rated					
Rating Date	PLOT P 6/12/2018	PLOT P 6/26/2018	PLOT P 6/26/2018	PLOT P 6/26/2018	PLOT P 7/2/2018
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	26 26	40 40	40 40	40 40	46 4
Trt-Eval Interval	26 DA-A				
Days After Emergence	9 DE-1	23 DE-1	23 DE-1	23 DE-1	29 DE-1
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	6	7	8
1 UNTREATED CHECK			0	0	0
2 ROUNDUP POWERMAX	32 fl oz/a	A	63 b	99 -	58 bc
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
3 ZIDUA PRO	6 fl oz/a	A	98 a	98 -	88 a
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
4 VALOR EZ1	2.5 fl oz/a	A	100 a	98 -	73 ab
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
5 FIERCE	3 oz wt/a	A	100 a	96 -	90 a
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
6 FIERCE	3.75 oz wt/a	A	98 a	96 -	61 bc
ROUNDUP POWERMAX	32 fl oz/a	A			
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>							
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018					
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson					
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell					
		Sponsor Contact: Valent-Eric Ott					
Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMATA	ERICA	AMBTR	AMATA	ERICA		
Pest Name	Common waterhe>	Canada horsewe>	Giant ragweed	Common waterhe>	Canada horsewe>		
Crop Code							
Crop Name							
Part Rated							
Rating Date	PLOT P 6/12/2018	PLOT P 6/26/2018	PLOT P 6/26/2018	PLOT P 6/26/2018	PLOT P 7/2/2018		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell		
Days After First/Last Applic.	26 26	40 40	40 40	40 40	46 4		
Trt-Eval Interval	26 DA-A						
Days After Emergence	9 DE-1	23 DE-1	23 DE-1	23 DE-1	29 DE-1		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code	6	7	8	9	10
7 FIERCE MTZ SC (2030)	1 pt/a	A	100 a	97 -	61 bc	99 a	83 -
ROUNDUP POWERMAX	32 fl oz/a	A					
XTENDIMAX	22 fl oz/a	A					
INTACT	0.5 % v/v	A					
CLASS ACT RIDION	1 % v/v	A					
ROUNDUP POWERMAX	32 fl oz/a	B					
XTENDIMAX	22 fl oz/a	B					
INTACT	0.5 % v/v	B					
CLASS ACT RIDION	1 % v/v	B					
8 AUTHORITY SUPREME	7.7 fl oz/a	A	100 a	96 -	68 abc	100 a	84 -
ROUNDUP POWERMAX	32 fl oz/a	A					
XTENDIMAX	22 fl oz/a	A					
INTACT	0.5 % v/v	A					
CLASS ACT RIDION	1 % v/v	A					
ROUNDUP POWERMAX	32 fl oz/a	B					
XTENDIMAX	22 fl oz/a	B					
INTACT	0.5 % v/v	B					
CLASS ACT RIDION	1 % v/v	B					
9 AUTHORITY MTZ	11 oz wt/a	A	98 a	100 -	49 c	97 a	95 -
ROUNDUP POWERMAX	32 fl oz/a	A					
XTENDIMAX	22 fl oz/a	A					
INTACT	0.5 % v/v	A					
CLASS ACT RIDION	1 % v/v	A					
ROUNDUP POWERMAX	32 fl oz/a	B					
XTENDIMAX	22 fl oz/a	B					
INTACT	0.5 % v/v	B					
CLASS ACT RIDION	1 % v/v	B					

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>						
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018				
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson				
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell				
Sponsor Contact: Valent-Eric Ott						
Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMATA	ERICA	AMBTR	AMATA	ERICA	ERICA
Pest Name	Common waterhe>	Canada horsewe>	Giant ragweed	Common waterhe>	Canada horsewe>	Canada horsewe>
Crop Code						
Crop Name						
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/12/2018	6/26/2018	6/26/2018	6/26/2018	7/2/2018	7/2/2018
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Assessed By	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	26 26	40 40	40 40	40 40	40 40	46 4
Trt-Eval Interval	26 DA-A					
Days After Emergence	9 DE-1	23 DE-1	23 DE-1	23 DE-1	23 DE-1	29 DE-1
Number of Decimals	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	6	7	8	9
10 V-10452	6 fl oz/a	A	96 a	100 -	78 ab	96 a
ROUNDUP POWERMAX	32 fl oz/a	A				
XTENDIMAX	22 fl oz/a	A				
INTACT	0.5 % v/v	A				
CLASS ACT RIDION	1 % v/v	A				
ROUNDUP POWERMAX	32 fl oz/a	B				
XTENDIMAX	22 fl oz/a	B				
INTACT	0.5 % v/v	B				
CLASS ACT RIDION	1 % v/v	B				
LSD P=.05			7.3	4.3	22.9	8.5
Standard Deviation			5.0	3.0	15.7	5.8
CV			5.26	3.05	22.55	6.27
Levene's F			4.042	1.028	2.248	2.28
Levene's Prob(F)			0.003*	0.439	0.055	0.054
Skewness			-2.7439*	-1.0954*	-0.382	-2.5129*
Kurtosis			6.7586*	0.1371	-0.9046	5.5933*
Replicate F			1.902	1.313	6.281	0.932
Replicate Prob(F)			0.1574	0.2933	0.0027	0.4412
Treatment F			23.724	1.346	3.197	25.510
Treatment Prob(F)			0.0001	0.2694	0.0129	0.0001

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

# Purdue Weed Science

Trial ID: 18S-MGS-Soy-04 Protocol ID: 18S-MGS-Soy-04 Project ID: VUSA2018FIERCEMD64.06	<b>Fierce plus Dicamba - Burndown</b> Location: Meigs Trial Year: 2018 Investigator: Dr. Bill Johnson Study Director: Taylor Campbell Sponsor Contact: Valent-Eric Ott	
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Pest Type Pest Code Pest Name	W Weed AMBTR Giant ragweed	W Weed AMATA Common waterhe>	W Weed ERICA Canada horsewe>	W Weed AMBTR Giant ragweed	W Weed AMATA Common waterhe>		
Crop Code							
Crop Name							
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P		
Rating Date	7/2/2018	7/2/2018	7/9/2018	7/9/2018	7/9/2018		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell		
Days After First/Last Applic.	46 4	46 4	53 11	53 11	53 11		
Trt-Eval Interval							
Days After Emergence	29 DE-1	29 DE-1	36 DE-1	36 DE-1	36 DE-1		
Number of Decimals	0	0	0	0	0		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	11	12	13	14	15
1 UNTREATED CHECK			0	0	0	0	0
2 ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION	32 fl oz/a A 22 fl oz/a A 0.5 % v/v A 1 % v/v A 32 fl oz/a B 22 fl oz/a B 0.5 % v/v B 1 % v/v B	A A A A B B B B	69 abc	58 b	99 -	79 abc	74 b
3 ZIDUA PRO ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION	6 fl oz/a A 32 fl oz/a A 22 fl oz/a A 0.5 % v/v A 1 % v/v A 32 fl oz/a B 22 fl oz/a B 0.5 % v/v B 1 % v/v B	A A A A A B B B B	76 a	83 a	94 -	86 a	89 a
4 VALOR EZ1 ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION	2.5 fl oz/a A 32 fl oz/a A 22 fl oz/a A 0.5 % v/v A 1 % v/v A 32 fl oz/a B 22 fl oz/a B 0.5 % v/v B 1 % v/v B	A A A A A B B B B	73 a	95 a	94 -	89 a	95 a
5 FIERCE ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION	3 oz wt/a A 32 fl oz/a A 22 fl oz/a A 0.5 % v/v A 1 % v/v A 32 fl oz/a B 22 fl oz/a B 0.5 % v/v B 1 % v/v B	A A A A A B B B B	81 a	96 a	89 -	89 a	95 a
6 FIERCE ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION ROUNDUP POWERMAX XTENDIMAX INTACT CLASS ACT RIDION	3.75 oz wt/a A 32 fl oz/a A 22 fl oz/a A 0.5 % v/v A 1 % v/v A 32 fl oz/a B 22 fl oz/a B 0.5 % v/v B 1 % v/v B	A A A A A B B B B	71 ab	91 a	91 -	83 ab	94 a

Means followed by same letter or symbol do not significantly differ (P=,05, LSD)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Untreated treatment(s) 1 excluded from analysis.  
 Missing data estimates are included in columns: Yates=6,9  
 Could not calculate LSD (% mean diff) for columns 3 because error mean square = 0.

## Purdue Weed Science

Fierce plus Dicamba - Burndown					
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018			
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson			
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell			
		Sponsor Contact: Valent-Eric Ott			
Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	AMATA	ERICA	AMBTR	AMATA
Pest Name	Giant ragweed	Common waterhe>	Canada horsewe>	Giant ragweed	Common waterhe>
Crop Code					
Crop Name					
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	7/2/2018	7/2/2018	7/9/2018	7/9/2018	7/9/2018
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	46 4	46 4	53 11	53 11	53 11
Trt-Eval Interval					
Days After Emergence	29 DE-1	29 DE-1	36 DE-1	36 DE-1	36 DE-1
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	11	12	13
7 FIERCE MTZ SC (2030)	1 pt/a	A	53 cd	100 a	93 -
ROUNDUP POWERMAX	32 fl oz/a	A			68 c
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
8 AUTHORITY SUPREME	7.7 fl oz/a	A	54 bcd	91 a	90 -
ROUNDUP POWERMAX	32 fl oz/a	A			70 bc
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			
9 AUTHORITY MTZ	11 oz wt/a	A	45 d	95 a	98 -
ROUNDUP POWERMAX	32 fl oz/a	A			66 c
XTENDIMAX	22 fl oz/a	A			
INTACT	0.5 % v/v	A			
CLASS ACT RIDION	1 % v/v	A			
ROUNDUP POWERMAX	32 fl oz/a	B			
XTENDIMAX	22 fl oz/a	B			
INTACT	0.5 % v/v	B			
CLASS ACT RIDION	1 % v/v	B			

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>						
Trial ID: 18S-MGS-Soy-04		Location: Meigs		Trial Year: 2018		
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson				
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell			Sponsor Contact: Valent-Eric Ott	
Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	AMATA	ERICA	AMBTR	AMATA	AMATA
Pest Name	Giant ragweed	Common waterhe>	Canada horsewe>	Giant ragweed	Common waterhe>	Common waterhe>
Crop Code						
Crop Name						
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	7/2/2018	7/2/2018	7/9/2018	7/9/2018	7/9/2018	7/9/2018
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Assessed By	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	46 4	46 4	53 11	53 11	53 11	53 11
Trt-Eval Interval						
Days After Emergence	29 DE-1	29 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1
Number of Decimals	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	11	12	13	14
10 V-10452	6 fl oz/a	A	74 a	93 a	99 -	84 ab
ROUNDUP POWERMAX	32 fl oz/a	A				
XTENDIMAX	22 fl oz/a	A				
INTACT	0.5 % v/v	A				
CLASS ACT RIDION	1 % v/v	A				
ROUNDUP POWERMAX	32 fl oz/a	B				
XTENDIMAX	22 fl oz/a	B				
INTACT	0.5 % v/v	B				
CLASS ACT RIDION	1 % v/v	B				
LSD P=.05			18.5	19.4	10.2	14.4
Standard Deviation			12.6	13.3	7.0	9.8
CV			19.12	14.96	7.42	12.44
Levene's F			0.183	2.674	1.232	1.207
Levene's Prob(F)			0.991	0.026*	0.319	0.332
Skewness			-0.6329	-2.1549*	-1.8435*	-0.8086*
Kurtosis			-0.3802	4.5351*	3.6462*	-0.0833
Replicate F			1.721	0.501	3.184	1.844
Replicate Prob(F)			0.1894	0.6855	0.0420	0.1662
Treatment F			3.922	3.649	1.140	3.369
Treatment Prob(F)			0.0044	0.0065	0.3737	0.0099

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>			
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018	
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson	
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell	
		Sponsor Contact: Valent-Eric Ott	
Pest Type		W Weed	W Weed
Pest Code		ERICA	AMBTR
Pest Name		Canada horsewe>	Giant ragweed
			W Weed
			AMATA
			Common waterhe>
Crop Code			
Crop Name			
Part Rated		PLOT P	PLOT P
Rating Date		7/23/2018	7/23/2018
Rating Type		CONTRO	CONTRO
Rating Unit		%	%
Number of Subsamples		1	1
Assessed By		T. Campbell	T. Campbell
Days After First/Last Applic.		67 25	67 25
Trt-Eval Interval			
Days After Emergence		50 DE-1	50 DE-1
Number of Decimals		0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			16
			17
			18
1 UNTREATED CHECK			0
2 ROUNDUP POWERMAX	32 fl oz/a A		100 -
XTENDIMAX	22 fl oz/a A		
INTACT	0.5 % v/v A		
CLASS ACT RIDION	1 % v/v A		
ROUNDUP POWERMAX	32 fl oz/a B		
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		
3 ZIDUA PRO	6 fl oz/a A		100 -
ROUNDUP POWERMAX	32 fl oz/a A		
XTENDIMAX	22 fl oz/a A		
INTACT	0.5 % v/v A		
CLASS ACT RIDION	1 % v/v A		
ROUNDUP POWERMAX	32 fl oz/a B		
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		
4 VALOR EZ1	2.5 fl oz/a A		100 -
ROUNDUP POWERMAX	32 fl oz/a A		
XTENDIMAX	22 fl oz/a A		
INTACT	0.5 % v/v A		
CLASS ACT RIDION	1 % v/v A		
ROUNDUP POWERMAX	32 fl oz/a B		
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		
5 FIERCE	3 oz wt/a A		99 -
ROUNDUP POWERMAX	32 fl oz/a A		
XTENDIMAX	22 fl oz/a A		
INTACT	0.5 % v/v A		
CLASS ACT RIDION	1 % v/v A		
ROUNDUP POWERMAX	32 fl oz/a B		
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		
6 FIERCE	3.75 oz wt/a A		100 -
ROUNDUP POWERMAX	32 fl oz/a A		
XTENDIMAX	22 fl oz/a A		
INTACT	0.5 % v/v A		
CLASS ACT RIDION	1 % v/v A		
ROUNDUP POWERMAX	32 fl oz/a B		
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		

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

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

Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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



## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>			
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018	
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson	
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell	
Sponsor Contact: Valent-Eric Ott			
Pest Type	W Weed	W Weed	W Weed
Pest Code	ERICA	AMBTR	AMATA
Pest Name	Canada horsewe>	Giant ragweed	Common waterhe>
Crop Code			
Crop Name			
Part Rated	PLOT P	PLOT P	PLOT P
Rating Date	7/23/2018	7/23/2018	7/23/2018
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Assessed By	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	67 25	67 25	67 25
Trt-Eval Interval			
Days After Emergence	50 DE-1	50 DE-1	50 DE-1
Number of Decimals	0	0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			16
			17
			18
7 FIERCE MTZ SC (2030)	1 pt/a	A	100 -
ROUNDUP POWERMAX	32 fl oz/a	A	
XTENDIMAX	22 fl oz/a	A	
INTACT	0.5 % v/v	A	
CLASS ACT RIDION	1 % v/v	A	
ROUNDUP POWERMAX	32 fl oz/a	B	
XTENDIMAX	22 fl oz/a	B	
INTACT	0.5 % v/v	B	
CLASS ACT RIDION	1 % v/v	B	96 -
8 AUTHORITY SUPREME	7.7 fl oz/a	A	100 -
ROUNDUP POWERMAX	32 fl oz/a	A	
XTENDIMAX	22 fl oz/a	A	
INTACT	0.5 % v/v	A	
CLASS ACT RIDION	1 % v/v	A	
ROUNDUP POWERMAX	32 fl oz/a	B	
XTENDIMAX	22 fl oz/a	B	
INTACT	0.5 % v/v	B	
CLASS ACT RIDION	1 % v/v	B	95 -
9 AUTHORITY MTZ	11 oz wt/a	A	100 -
ROUNDUP POWERMAX	32 fl oz/a	A	
XTENDIMAX	22 fl oz/a	A	
INTACT	0.5 % v/v	A	
CLASS ACT RIDION	1 % v/v	A	
ROUNDUP POWERMAX	32 fl oz/a	B	
XTENDIMAX	22 fl oz/a	B	
INTACT	0.5 % v/v	B	
CLASS ACT RIDION	1 % v/v	B	97 -
			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=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>			
Trial ID: 18S-MGS-Soy-04		Location: Meigs Trial Year: 2018	
Protocol ID: 18S-MGS-Soy-04		Investigator: Dr. Bill Johnson	
Project ID: VUSA2018FIERCEMD64.06		Study Director: Taylor Campbell	
		Sponsor Contact: Valent-Eric Ott	
Pest Type	W Weed	W Weed	W Weed
Pest Code	ERICA	AMBTR	AMATA
Pest Name	Canada horsewe>	Giant ragweed	Common waterhe>
Crop Code			
Crop Name			
Part Rated	PLOT P	PLOT P	PLOT P
Rating Date	7/23/2018	7/23/2018	7/23/2018
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Assessed By	T. Campbell	T. Campbell	T. Campbell
Days After First/Last Applic.	67 25	67 25	67 25
Trt-Eval Interval			
Days After Emergence	50 DE-1	50 DE-1	50 DE-1
Number of Decimals	0	0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
			16
10 V-10452	6 fl oz/a	A	99 -
ROUNDUP POWERMAX	32 fl oz/a	A	96 -
XTENDIMAX	22 fl oz/a	A	99 a
INTACT	0.5 % v/v	A	
CLASS ACT RIDION	1 % v/v	A	
ROUNDUP POWERMAX	32 fl oz/a	B	
XTENDIMAX	22 fl oz/a	B	
INTACT	0.5 % v/v	B	
CLASS ACT RIDION	1 % v/v	B	
LSD P=.05	1.4	5.0	6.2
Standard Deviation	0.9	3.4	4.2
CV	0.95	3.5	4.39
Levene's F	1.44	1.396	0.759
Levene's Prob(F)	0.225	0.243	0.641
Skewness	-4.3119*	-1.3421*	-3.3098*
Kurtosis	19.9244*	0.5804	14.2446*
Replicate F	0.531	0.473	0.474
Replicate Prob(F)	0.6652	0.7039	0.7036
Treatment F	1.125	1.189	4.339
Treatment Prob(F)	0.3823	0.3460	0.0024

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Untreated treatment(s) 1 excluded from analysis.

Missing data estimates are included in columns: Yates=6,9

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

## Purdue Weed Science

<b>Fierce plus Dicamba - Burndown</b>	
Trial ID: 18S-MGS-Soy-04	Location: Meigs Trial Year: 2018
Protocol ID: 18S-MGS-Soy-04	Investigator: Dr. Bill Johnson
Project ID: VUSA2018FIERCEMD64.06	Study Director: Taylor Campbell
	Sponsor Contact: Valent-Eric Ott

**Pest Type**

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

**Pest Code**

ERICA, Erigeron canadensis, Canada horseweed = US

AMBTR, Ambrosia trifida, Giant ragweed = US

AMATA, Amaranthus tamariscinus, Common waterhemp = US

**Crop Code**

GLXMA, BSOY, Glycine max, Soybean = US

**Part Rated**

PLOT = plot

P = Pest is Part Rated

C = Crop is Part Rated

**Rating Type**

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

**Rating Unit**

% = percent