

Purdue Weed Science

FMC Base Residual Treatments in Xtend Program

Trial ID: 18S-MGS-Soy-09 Location: Meigs Trial Year: 2018
 Protocol ID: Xtendimax Investigator: Dr. Bill Johnson
 Project ID: Study Director: Taylor Campbell
 Sponsor Contact: FMC - Nick Hustedde

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 Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN

Soil Temperature, Unit: 69 F
Soil Moisture: SLIDRY slightly dry

Planting Date: 5/7/2018
Planting Method: PLANTD planted
Planting Equipment: PP plot planter
Emergence Date: 5/12/2018

Harvested Width, Unit: 5 FT
Harvested Length, Unit: 22.5 FT
% Standard Moisture: 13

Pest Description

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

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 25 FT
Treated Plot Area: 166.75 FT² **Treatments:** 10
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: NOTILL no-till
Study Design: RACOB L Randomized Complete Block (RCB)

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Application Description

	A	B	C
Application Date:	5/8/2018	6/4/2018	6/25/2018
Appl. Start Time:	10:05 AM	10:09 AM	9:45 AM
Appl. Stop Time:	10:27 AM	10:11 AM	9:55 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	POSPOS	POSPOS
Application Placement:	BROADC	BROADC	BROADC
Applied By:	T. Campbell	M. Zimmer	T. Campbell
Air Temperature, Unit:	69 F	68 F	72 F
% Relative Humidity:	69	60	83
Wind Velocity, Unit:	3 MPH	3 MPH	5 MPH
Wind Direction:	NE	SW	E
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	62 F	65 F	72 F
Soil Moisture:	SLIDRY	SLIWET	SLIWET
% Cloud Cover:	30	30	98

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	00	13 90	14 90
Stage Minimum, Percent:		12 10	14 90
Stage Maximum, Percent:		13 90	15 10
Average Diameter, Unit:		5 IN	6 IN
Height, Unit:		9 IN	22 IN
Height Minimum, Maximum:		8 10	20 24

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMATA W	AMATA W W	AMATA W
Stage Majority, Percent:	00	17 80	18 70
Stage Minimum, Percent:		15 10	16 30
Stage Maximum, Percent:		19 10	19 10
Diameter, Unit:		3 IN	3 IN
Height, Unit:		3 IN	4 IN
Height Minimum, Maximum:		2 3	2 4
Density, Unit:		1 FT2	8 FT2

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Application Equipment

	A	B	C
Appl. Equipment:	CO2 BACKPACK	CO2 BACKPACK	CO2 BACKPACK
Equipment Type:	BACCAI	BACCAI	BACCAI
Operation Pressure, Unit:	28 PSI	43 PSI	43 PSI
Nozzle Type:	XR	TTI	TTI
Nozzle Size:	8002	11015	11015
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Nozzles/Row:	4	4	4
Boom Length, Unit:	6.7 FT	6.7 FT	6.7 FT
Boom Height, Unit:	18 IN	25 IN	30 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	945 mL	945 mL	945 mL
Propellant:	COMCO2	COMCO2	COMCO2

Date By Notes

4/24/2018 T. Campbell Burndown 32 oz of Roundup Power Max, 1 pt of 2,4-D Shredder (ester formulation), and 2.5% v/v N-Pak AMS @ 10 gpa, 30 psi, 5 mph, and 1102 AIXR nozzle on a 4 wheeler with a 20 ft boom with 20 inch spacings
 5/7/2018 T. Campbell Gramoxone sprayed morning of planting at 2 pt/a plus 1% v/v of COC @ 10 gpa, 30 psi, 5 mph, and 1102 AIXR nozzle on a 4 wheeler with a 20 ft boom with 20 inch spacings
 6/7/2018 T. Campbell Evening storm brought hail and slight damage occurred at Meigs field site.

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Reps: 4 Appl Code: A Plots: 6.67 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 945 mL (total for 4 plots; minimum=869.4 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Unit	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
2	AUTHORITY FIRST	70 %		DF	5 oz/a		A	2.359 g/mx	102	206	502	605
3	AUTHORITY MAXX	66 %		WG	5 oz/a		A	2.359 g/mx	103	207	501	503
4	AUTHORITY ELITE	7 LB/GAL		EC	28 fl oz/a		A	13.78 mL/mx	104	303	402	603
5	AUTHORITY SUPREME	4.16 LBA/GAL		SC	7 fl oz/a		A	3.445 mL/mx	105	301	404	507
6	AUTHORITY MTZ	45 %		WG	14 oz/a		A	6.605 g/mx	106	302	307	505
7	AUTHORITY MAXX	66 %		WG	5 oz/a		A	2.359 g/mx	107	305	407	602
8	ZIDUA PRO	4.09 LB/GAL		SC	6 fl oz/a		A	2.953 mL/mx	201	204	401	604
9	FIERCE	76 %		WG	3 oz/a		A	1.415 g/mx	202	306	405	506
10	BOUNDARY	6.5 LB/GAL		EC	29 fl oz/a		A	14.27 mL/mx	203	205	406	504

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 Protocol ID: Xtendimax Investigator: Dr. Bill Johnson
 Project ID: Study Director: Taylor Campbell
 Sponsor Contact: FMC - Nick Hustedde

Reps: 4 Appl Code: B Plots: 6.67 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 945 mL (total for 4 plots; minimum=869.4 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Appl Unit	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		15.75 mL/mx		102	206	502	605
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
3	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		103	207	501	503
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
4	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		104	303	402	603
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
5	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		105	301	404	507
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
6	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		106	302	307	505
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
8	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		201	204	401	604
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
9	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		202	306	405	506
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					
10	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	B		15.75 mL/mx		203	205	406	504
	XTENDIMAX	2.9	LBAE/GAL	SL	22 fl oz/a	B		10.83 mL/mx					
	INTACT	100 %		L	0.5 % v/v	B		4.724 mL/mx					
	CLASS ACT RIDION	100 %		L	1 % v/v	B		9.449 mL/mx					

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Protocol ID: Xtendimax	Investigator: Dr. Bill Johnson	
Project ID:	Study Director: Taylor Campbell	
	Sponsor Contact: FMC - Nick Hustedde	

Reps: 4 Appl Code: C Plots: 6.67 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 945 mL (total for 4 plots; minimum=869.4 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Unit	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
7	ANTHEM MAXX	4.3 LBA/GAL	SC		3 fl oz/a	C		1.477 mL/mx	107	305	407	602
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		32 fl oz/a	C		15.75 mL/mx				
	XTENDIMAX	2.9 LBAE/GAL	SL		22 fl oz/a	C		10.83 mL/mx				
	INTACT	100 %	L		0.5 % v/v	C		4.724 mL/mx				
	CLASS ACT RIDION	100 %	L		1 % v/v	C		9.449 mL/mx				

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Project ID:	Study Director: Taylor Campbell	
	Sponsor Contact: FMC - Nick Hustedde	

Reps: 4 Appl Code: _ Plots: 6.67 by 25 feet
 Spray vol: 15 GAL/AC Mix Size: 945 mL (total for 4 plots; minimum=869.4 mL)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Unit	Code	Amt Product to Measure	Rep						
									1	2	3	4			
1	UNTREATED							101	304	403	601				

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
2.949	g	AUTHORITY FIRST	70	%	DF	
177.187	mL	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	
121.816	mL	XTENDIMAX	2.9	LBAE/GAL	SL	
53.150	mL	INTACT	100	%	L	
106.301	mL	CLASS ACT RIDION	100	%	L	
5.898	g	AUTHORITY MAXX	66	%	WG	
17.227	mL	AUTHORITY ELITE	7	LB/GAL	EC	
4.307	mL	AUTHORITY SUPREME	4.16	LBA/GAL	SC	
8.257	g	AUTHORITY MTZ	45	%	WG	
1.846	mL	ANTHEM MAXX	4.3	LBA/GAL	SC	
3.691	mL	ZIDUA PRO	4.09	LB/GAL	SC	
1.769	g	FIERCE	76	%	WG	
17.842	mL	BOUNDARY	6.5	LB/GAL	EC	

* 'Per area' calculations based on spray volume= 15 GAL/AC, mix size= 945 mL (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 945 mL.

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Pest Type			W Weed			W Weed		
Pest Code			AMATA			AMATA		
Pest Name			Common waterhe>			Common waterhe>		
Crop Code	GLXMA			GLXMA			GLXMA	
Crop Name	Soybean			Soybean			Soybean	
Part Rated	PLOT C		PLOT P	PLOT C		PLOT P	PLOT C	
Rating Date	5/22/2018		5/22/2018	6/4/2018		6/4/2018	6/19/2018	
Rating Type	PHYGEN		CONTRO	PHYGEN		CONTRO	PHYGEN	
Rating Unit	%		%	%		%	%	
Number of Subsamples Assessed By	1 T. Campbell		1 T. Campbell	1 T. Campbell		1 T. Campbell	1 T. Campbell	
Days After First/Last Applic.	14 14		14 14	27 27		27 27	42 15	
Trt-Eval Interval	14 DA-A		14 DA-A					
Days After Emergence	10 DE-1		10 DE-1	23 DE-1		23 DE-1	38 DE-1	
ARM Action Codes								
Number of Decimals	0		0	0		0	0	
Trt Treatment No. Name	Rate	Appl						
	Rate Unit	Code	1	2	3	4	5	
1 UNTREATED			0	0	0	0	0	
2 AUTHORITY FIRST	5 oz/a A		0 -	100 -	0 -	95 -	0 -	
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 AUTHORITY MAXX	5 oz/a A		0 -	100 -	0 -	97 -	0 -	
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 AUTHORITY ELITE	28 fl oz/a A		0 -	100 -	0 -	100 -	0 -	
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 AUTHORITY SUPREME	7 fl oz/a A		0 -	100 -	0 -	99 -	0 -	
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 AUTHORITY MTZ	14 oz/a A		0 -	100 -	0 -	99 -	0 -	
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							
7 AUTHORITY MAXX	5 oz/a A		0 -	100 -	0 -	95 -	0 -	
ANTHEM MAXX	3 fl oz/a C							
ROUNDUP POWERMAX	32 fl oz/a C							
XTENDIMAX	22 fl oz/a C							
INTACT	0.5 % v/v C							
CLASS ACT RIDION	1 % v/v C							
8 ZIDUA PRO	6 fl oz/a A		0 -	100 -	0 -	95 -	0 -	
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 FIERCE	3 oz/a A		0 -	100 -	0 -	99 -	0 -	
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.
 Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.

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Pest Type		W Weed		W Weed	
Pest Code		AMATA		AMATA	
Pest Name		Common waterhe>		Common waterhe>	
Crop Code	GLXMA		GLXMA		GLXMA
Crop Name	Soybean		Soybean		Soybean
Part Rated	PLOT C	PLOT P	PLOT C	PLOT P	PLOT C
Rating Date	5/22/2018	5/22/2018	6/4/2018	6/4/2018	6/19/2018
Rating Type	PHYGEN	CONTRO	PHYGEN	CONTRO	PHYGEN
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.	14 14	14 14	27 27	27 27	42 15
Trt-Eval Interval	14 DA-A	14 DA-A			
Days After Emergence	10 DE-1	10 DE-1	23 DE-1	23 DE-1	38 DE-1
ARM Action Codes					
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code	1	2	3	4
10 BOUNDARY	29 fl oz/a A	0 -	100 -	0 -	100 -
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				4.4	
Standard Deviation	0.0	0.0	0.0	3.0	0.0
CV	0.0	0.0	0.0	3.1	0.0
Levene's F	0.00	0.00	0.00	3.931	0.00
Levene's Prob(F)	0.00*	0.00*	0.00*	0.003*	0.00*
Skewness	.	.	.	-1.3009*	.
Kurtosis	.	.	.	0.3966	.
Replicate F	0.000	0.000	0.000	0.505	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	0.6826	1.0000
Treatment F	0.000	0.000	0.000	2.188	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	0.0660	1.0000

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 Untreated treatment(s) 1 excluded from analysis.
 Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.

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Pest Type	W Weed AMATA	W Weed AMATA	W Weed AMATA	W Weed AMATA	GLXMA Soybean		
Pest Code	Common waterhe>	Common waterhe>	Common waterhe>	Common waterhe>	PLOT C		
Pest Name							
Crop Code							
Crop Name							
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P			
Rating Date	6/19/2018	7/2/2018	7/12/2018	8/2/2018	10/18/2018		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	YIELD		
Rating Unit	%	%	%	%	lb/plot		
Number of Subsamples Assessed By	1 T. Campbell	1 T. Campbell	1 T. Campbell	1 T. Campbell	1 T. Campbell		
Days After First/Last Applic.	42 15	55 7	65 17	86 38	163 115		
Trt-Eval Interval							
Days After Emergence	38 DE-1	51 DE-1	61 DE-1	82 DE-1	159 DE-1		
ARM Action Codes							
Number of Decimals	0	0	0	0	1		
Trt Treatment No. Name	Rate	Appl Code	6	7	8	9	10
1 UNTREATED			0	0	0	0	3.0
2 AUTHORITY FIRST	5 oz/a A		95 a	98 a	98 a	98 a	3.7 -
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 AUTHORITY MAXX	5 oz/a A		95 a	99 a	99 a	99 a	5.3 -
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 AUTHORITY ELITE	28 fl oz/a A		100 a	100 a	100 a	100 a	3.7 -
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 AUTHORITY SUPREME	7 fl oz/a A		98 a	100 a	100 a	100 a	5.4 -
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 AUTHORITY MTZ	14 oz/a A		99 a	100 a	100 a	100 a	5.2 -
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						
7 AUTHORITY MAXX	5 oz/a A		99 a	91 b	92 b	92 b	5.0 -
ANTHEM MAXX	3 fl oz/a C						
ROUNDUP POWERMAX	32 fl oz/a C						
XTENDIMAX	22 fl oz/a C						
INTACT	0.5 % v/v C						
CLASS ACT RIDION	1 % v/v C						
8 ZIDUA PRO	6 fl oz/a A		85 b	96 a	96 a	96 a	3.8 -
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 FIERCE	3 oz/a A		98 a	100 a	100 a	100 a	4.6 -
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.
 Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.

Purdue Weed Science

FMC Base Residual Treatments in Xtend Program

Trial ID: 18S-MGS-Soy-09 Location: Meigs Trial Year: 2018
 Protocol ID: Xtendimax Investigator: Dr. Bill Johnson
 Project ID: Study Director: Taylor Campbell
 Sponsor Contact: FMC - Nick Hustedde

Pest Type	W Weed AMATA	W Weed AMATA	W Weed AMATA	W Weed AMATA	GLXMA Soybean
Pest Code	Common waterhe>	Common waterhe>	Common waterhe>	Common waterhe>	PLOT C
Pest Name					
Crop Code					
Crop Name					
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	
Rating Date	6/19/2018	7/2/2018	7/12/2018	8/2/2018	10/18/2018
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	YIELD
Rating Unit	%	%	%	%	lb/plot
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.	42 15	55 7	65 17	86 38	163 115
Trt-Eval Interval					
Days After Emergence	38 DE-1	51 DE-1	61 DE-1	82 DE-1	159 DE-1
ARM Action Codes					
Number of Decimals	0	0	0	0	1
Trt Treatment					
No. Name	6	7	8	9	10
Rate					
Appl					
Code					
10 BOUNDARY	96 a	100 a	100 a	100 a	4.7 -
ROUNDUP POWERMAX					
XTENDIMAX					
INTACT					
CLASS ACT RIDION					
LSD P=.05	6.2	4.2	4.2	4.2	1.48
Standard Deviation	4.2	2.9	2.9	2.9	1.01
CV	4.39	2.91	2.94	2.94	21.96
Levene's F	0.771	1.629	1.476	1.476	0.635
Levene's Prob(F)	0.631	0.163	0.212	0.212	0.742
Skewness	-1.6531*	-2.0895*	-1.956*	-1.956*	0.4046
Kurtosis	2.2523*	3.2534*	2.3503*	2.3503*	-0.559
Replicate F	0.339	3.489	2.333	2.333	13.295
Replicate Prob(F)	0.7975	0.0312	0.0995	0.0995	0.0001
Treatment F	4.493	4.234	3.729	3.729	2.028
Treatment Prob(F)	0.0019	0.0028	0.0058	0.0058	0.0864

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Purdue Weed Science

FMC Base Residual Treatments in Xtend Program

Trial ID: 18S-MGS-Soy-09	Location: Meigs	Trial Year: 2018
Protocol ID: Xtendimax	Investigator: Dr. Bill Johnson	
Project ID:	Study Director: Taylor Campbell	
	Sponsor Contact: FMC - Nick Hustedde	

Pest Type			
Pest Code			
Pest Name			
Crop Code	GLXMA	GLXMA	
Crop Name	Soybean	Soybean	
Part Rated	PLOT C	PLOT C	
Rating Date	10/18/2018	10/18/2018	
Rating Type	MOICON	YIELD	
Rating Unit	%	BU	
Number of Subsamples	1	1	
Assessed By	T. Campbell	T. Campbell	
Days After First/Last Applic.	163 115	163 115	
Trt-Eval Interval			
Days After Emergence	159 DE-1	159 DE-1	
ARM Action Codes		TY1	
Number of Decimals	1	1	
Trt Treatment No.	Rate	Appl	
Name	Rate Unit	Code	
1 UNTREATED			11 12
2 AUTHORITY FIRST	5 oz/a A		14.0 19.4
ROUNDUP POWERMAX	32 fl oz/a B		13.7 - 23.7 -
XTENDIMAX	22 fl oz/a B		
INTACT	0.5 % v/v B		
CLASS ACT RIDION	1 % v/v B		
3 AUTHORITY MAXX	5 oz/a A		13.9 - 34.0 -
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 AUTHORITY ELITE	28 fl oz/a A		13.6 - 23.6 -
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 AUTHORITY SUPREME	7 fl oz/a A		14.2 - 34.4 -
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 AUTHORITY MTZ	14 oz/a A		13.3 - 33.7 -
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		
7 AUTHORITY MAXX	5 oz/a A		13.7 - 32.2 -
ANTHEM MAXX	3 fl oz/a C		
ROUNDUP POWERMAX	32 fl oz/a C		
XTENDIMAX	22 fl oz/a C		
INTACT	0.5 % v/v C		
CLASS ACT RIDION	1 % v/v C		
8 ZIDUA PRO	6 fl oz/a A		14.1 - 23.9 -
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 FIERCE	3 oz/a A		14.0 - 29.4 -
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		

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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.

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Purdue Weed Science

FMC Base Residual Treatments in Xtend Program

Trial ID: 18S-MGS-Soy-09	Location: Meigs	Trial Year: 2018
Protocol ID: Xtendimax	Investigator: Dr. Bill Johnson	
Project ID:	Study Director: Taylor Campbell	
	Sponsor Contact: FMC - Nick Hustedde	

Pest Type		
Pest Code		
Pest Name		
Crop Code	GLXMA	GLXMA
Crop Name	Soybean	Soybean
Part Rated	PLOT C	PLOT C
Rating Date	10/18/2018	10/18/2018
Rating Type	MOICON	YIELD
Rating Unit	%	BU
Number of Subsamples	1	1
Assessed By	T. Campbell	T. Campbell
Days After First/Last Applic.	163 115	163 115
Trt-Eval Interval		
Days After Emergence	159 DE-1	159 DE-1
ARM Action Codes		TY1
Number of Decimals	1	1
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
		11
		12
10 BOUNDARY	29 fl oz/a A	13.2 -
ROUNDUP POWERMAX	32 fl oz/a B	29.9 -
XTENDIMAX	22 fl oz/a B	
INTACT	0.5 % v/v B	
CLASS ACT RIDION	1 % v/v B	
LSD P=.05	1.20	9.34
Standard Deviation	0.82	6.40
CV	5.98	21.76
Levene's F	0.818	0.593
Levene's Prob(F)	0.594	0.775
Skewness	-2.3138*	0.4049
Kurtosis	6.5098*	-0.4956
Replicate F	3.416	13.011
Replicate Prob(F)	0.0335	0.0001
Treatment F	0.765	2.062
Treatment Prob(F)	0.6361	0.0815

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Untreated treatment(s) 1 excluded from analysis.

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Purdue Weed Science

FMC Base Residual Treatments in Xtend Program

Trial ID: 18S-MGS-Soy-09	Location: Meigs	Trial Year: 2018
Protocol ID: Xtendimax	Investigator: Dr. Bill Johnson	
Project ID:	Study Director: Taylor Campbell	
	Sponsor Contact: FMC - Nick Hustedde	

Pest Type

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

Pest Code

AMATA, Amaranthus tamariscinus, Common waterhemp = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

YIELD = yield

MOICON = moisture content

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = $6.453333 * [10] * (100 - [11]) / 87$