

Purdue Weed Science

Pre Zidua Programs in Soybean

Trial ID: 17S-TPAC-SOY-14 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-14 Investigator: Dr. Bill Johnson
 Project ID: MKD-H-2017-US-S31-X-04.4 Study Director: Dustin Johnson
 Sponsor Contact: G. Welker - BASF

General Trial Information

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

Discipline: H herbicide
Trial Status: E established
Initiation Date: May-17-2017

Trial Location

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

Latitude of LL Corner °: 40.29176 N
Longitude of LL Corner °: 86.90804 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

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

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

Cooperator/Landowner

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

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: XTEND AG30X6
Description: DICAMBA/RR
Planting Date: May-30-2017
Planting Rate, Unit: 140000 S/A **Planting Method:** PLANTD planted
Depth, Unit: 1.25 IN **Planting Equipment:** PP Plot Planter
Row Spacing, Unit: 30 IN **Emergence Date:** Jun-5-2017
Soil Temperature, Unit: 74 F

Pest Description

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

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300 FT² **Treatments:** 12 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: TPAC -Field 4A
% OM: 3.1 **Texture:** SIL silt loam
pH: 6 **Soil Name:** Toronto-Millbrook
CEC: 11.1

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Application Description

	A	B
Application Date:	May-17-2017	Jun-19-2017
Appl. Start Time:	8:30 AM	10:00 AM
Appl. Stop Time:	8:57 AM	10:15 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPLA	POSPOS
Application Placement:	BROADC	BROADC
Applied By:	D. JOHNSON	D. JOHNSON
Air Temperature, Unit:	70 F	73 F
% Relative Humidity:	61	71
Wind Velocity, Unit:	12 MPH	7 MPH
Wind Direction:	SSW	W
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	64 F	71 F
Soil Moisture:	DRY	WET
% Cloud Cover:	40	20

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	00	13
Stage Minimum, Percent:	00	13
Stage Maximum, Percent:	00	14
Height, Unit:		4.5 IN
Height Minimum, Maximum:		4 5

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	13	18
Stage Minimum, Percent:	10	10
Stage Maximum, Percent:	15	19
Height, Unit:	3 IN	8 IN
Height Minimum, Maximum:	0.25 4	0.5 16
Density, Unit:	10 FT2	13 FT2

Application Equipment

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

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Trt No	Treatment	Application	Comment
8	Plot 401	was not sprayed	throw out.

Trial Comments	
5/26/17	Did not rate crop injury as soybean had not emerged yet.
6/7/17	Did not rate crop injury due to soybeans just emerging at soil.

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Project ID: MKD-H-2017-US-S31-X-04.4	Study Director: Dustin Johnson
Sponsor Contact: G. Welker - BASF	

Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (1.5642 liters calculated mix size)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Appl Unit	Appl Code	Amt to Measure	Rep			
									1	2	3	4
1	UNTREATED CHECK								101	404	501	801
2	ZIDUA PRO	4.09	LB/GAL	SC	6.0	fl oz/a	A	5.625 ml/mx	102	402	505	704
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
	CLASS ACT RIDION	100	%	L	1	% v/v	A	18.0 ml/mx				
3	ZIDUA PRO	4.09	LB/GAL	SC	4.5	fl oz/a	A	4.219 ml/mx	103	406	503	705
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	A	12.0 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
4	ZIDUA PRO	4.09	LB/GAL	SC	4.5	fl oz/a	A	4.219 ml/mx	104	303	606	702
	TRICOR DF	75	%	DF	4.0	oz/a	A	3.595 g/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
5	ZIDUA SC	4.17	LB/GAL	SC	2.13	fl oz/a	A	1.997 ml/mx	105	306	601	805
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	A	12.0 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
6	ZIDUA SC	4.17	LB/GAL	SC	2.13	fl oz/a	A	1.997 ml/mx	106	405	602	802
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	A	12.0 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
	CLASS ACT RIDION	100	%	L	1	% v/v	A	18.0 ml/mx				
	ZIDUA SC	4.17	LB/GAL	SC	2.13	fl oz/a	B	1.997 ml/mx				
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	B	12.0 ml/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	B	4.5 ml/mx				
CLASS ACT RIDION	100	%	L	1	% v/v	B	18.0 ml/mx					
7	ZIDUA SC	4.17	LB/GAL	SC	2.74	fl oz/a	A	2.569 ml/mx	201	304	504	803
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	A	12.0 ml/mx				
	PURSUIT	2	LBAE/GAL	L	3.0	fl oz/a	A	2.812 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
	CLASS ACT RIDION	100	%	L	1	% v/v	A	18.0 ml/mx				
8	SHREDDER 2.4-D LV4	3.8	LB/GAL	SL	8	fl oz/a	A	7.5 ml/mx	202	401	502	804
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1	% v/v	A	18.0 ml/mx				
	CLASS ACT RIDION	100	%	L	1	% v/v	A	18.0 ml/mx				
	ZIDUA SC	4.17	LB/GAL	SC	2.74	fl oz/a	B	2.569 ml/mx				
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	B	12.0 ml/mx				
	PURSUIT	2	LBAE/GAL	L	3.0	fl oz/a	B	2.812 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	B	30.0 ml/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25	% v/v	B	4.5 ml/mx				
	CLASS ACT RIDION	100	%	L	1	% v/v	B	18.0 ml/mx				
9	ZIDUA SC	4.17	LB/GAL	SC	3.3	fl oz/a	A	3.094 ml/mx	203	302	604	806
	ENGENIA	5	LB/GAL	SL	12.8	fl oz/a	A	12.0 ml/mx				
	PURSUIT	2	LBAE/GAL	L	4.0	fl oz/a	A	3.75 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0	fl oz/a	A	30.0 ml/mx				
	MSO	100	%	SL	1.0	% v/v	A	18.0 ml/mx				
CLASS ACT RIDION	100	%	L	1	% v/v	A	18.0 ml/mx					

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Sponsor Contact: G. Welker - BASF	

Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (1.5642 liters calculated mix size)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Appl Unit	Code	Amt Product to Measure	Rep			
									1	2	3	4
10	SHREDDER 2.4-D LV4	3.8	LB/GAL	SL	8 fl oz/a	A		7.5 ml/mx	204	301	506	701
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32 fl oz/a	A		30.0 ml/mx				
	MSO	100	%	SL	1 % v/v	A		18.0 ml/mx				
	CLASS ACT RIDION	100	%	L	1 % v/v	A		18.0 ml/mx				
	ZIDUA SC	4.17	LB/GAL	SC	3.3 fl oz/a	B		3.094 ml/mx				
	ENGENIA	5	LB/GAL	SL	12.8 fl oz/a	B		12.0 ml/mx				
	PURSUIT	2	LBAE/GAL	L	4.0 fl oz/a	B		3.75 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0 fl oz/a	B		30.0 ml/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25 % v/v	B		4.5 ml/mx				
	CLASS ACT RIDION	100	%	L	1 % v/v	B		18.0 ml/mx				
11	ZIDUA SC	4.17	LB/GAL	SC	2.74 fl oz/a	A		2.569 ml/mx	205	403	603	706
	ENGENIA	5	LB/GAL	SL	12.8 fl oz/a	A		12.0 ml/mx				
	PURSUIT	2	LBAE/GAL	L	3.0 fl oz/a	A		2.812 ml/mx				
	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	32.0 fl oz/a	A		30.0 ml/mx				
	MSO	100	%	SL	1.0 % v/v	A		18.0 ml/mx				
	CLASS ACT RIDION	100	%	L	1 % v/v	A		18.0 ml/mx				
	ZIDUA SC	4.17	LB/GAL	SC	2.13 fl oz/a	B		1.997 ml/mx				
	ENGENIA	5	LB/GAL	SL	12.8 fl oz/a	B		12.0 ml/mx				
	ACTIVATOR 90 NIS	100	%	SL	0.25 % v/v	B		4.5 ml/mx				
CLASS ACT RIDION	100	%	L	1 % v/v	B		18.0 ml/mx					
12	UNTREATED CHECK 2								206	305	605	703

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
17.578	ml	ZIDUA PRO	4.09	LB/GAL	SC	
450.000	ml	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	
224.976	ml	MSO	100	%	SL	
314.966	ml	CLASS ACT RIDION	100	%	L	
150.000	ml	ENGENIA	5	LB/GAL	SL	
4.493	g	TRICOR DF	75	%	DF	
27.352	ml	ZIDUA SC	4.17	LB/GAL	SC	
22.498	ml	ACTIVATOR 90 NIS	100	%	SL	
19.922	ml	PURSUIT	2	LBAE/GAL	L	
18.750	ml	SHREDDER 2.4-D LV4	3.8	LB/GAL	SL	

* 'Per area' calculations based on spray volume= 15 GAL/AC, mix size= 1.8 liters (mix size basis).
 * Product amount calculations increased 25 % for overage adjustment.
 * 'Per volume' calculations use spray volume= 15 GAL/AC, mix size= 1.8 liters.

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 Project ID: MKD-H-2017-US-S31-X-04.4 Study Director: Dustin Johnson
 Sponsor Contact: G. Welker - BASF

Pest Type Pest Code Pest Name	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed		
Crop Code Crop Name Part Rated Rating Date Rating Type Rating Unit Number of Subsamples Assessed By	GLXMA Soybean PLOT - May-26-2017 CONTROL % 1 J. IKLEY	GLXMA Soybean PLOT - Jun-7-2017 CONTROL % 1 M. ZIMMER	GLXMA Soybean PLOT - Jun-19-2017 CONTROL % 1 D. JOHNSON	GLXMA Soybean PLOT - Jun-19-2017 PHYGEN % 1 D. JOHNSON	GLXMA Soybean PLOT - Jul-12-2017 CONTROL % 1 D. JOHNSON	GLXMA Soybean PLOT - Jul-12-2017 PHYGEN % 1 D. JOHNSON		
Rating Timing Days After First/Last Applic. Trt-Eval Interval Days After Emergence ARM Action Codes Number of Decimals	A1 9 9 9 DA-A -10 DE-1 P 0	A2 21 21 9 DA-A 2 DE-1 P 0	A3 33 33 9 DA-A 14 DE-1 P 0	A3 33 33 9 DA-A 14 DE-1 P 0	A4 56 23 9 DA-A 37 DE-1 P 0	A4 56 23 9 DA-A 37 DE-1 P 0		
Trt Treatment No. Name	Rate Unit	Appl Code	1	2	3	4	5	6
1 UNTREATED CHECK			0 e	0 d	5 d	0 a	0 b	0 b
2 ZIDUA PRO ROUNDUP POWERMAX MSO CLASS ACT RIDION	6.0 fl oz/a A 32.0 fl oz/a A 1.0 % v/v A 1 % v/v A		91 ab	84 ab	51 abc	0 a	6 b	0 b
3 ZIDUA PRO ENGENIA ROUNDUP POWERMAX MSO CLASS ACT RIDION	4.5 fl oz/a A 12.8 fl oz/a A 32.0 fl oz/a A 1.0 % v/v A 1 % v/v A		98 a	95 a	79 a	0 a	20 b	0 b
4 ZIDUA PRO TRICOR DF ROUNDUP POWERMAX MSO CLASS ACT RIDION	4.5 fl oz/a A 4.0 oz/a A 32.0 fl oz/a A 1.0 % v/v A 1 % v/v A		88 bc	77 b	11 cd	0 a	0 b	0 b
5 ZIDUA SC ENGENIA ROUNDUP POWERMAX MSO CLASS ACT RIDION	2.13 fl oz/a A 12.8 fl oz/a A 32.0 fl oz/a A 1.0 % v/v A 1 % v/v A		94 ab	93 a	38 a-d	0 a	0 b	0 b
6 ZIDUA SC ENGENIA ROUNDUP POWERMAX MSO CLASS ACT RIDION ZIDUA SC ENGENIA ACTIVATOR 90 NIS CLASS ACT RIDION	2.13 fl oz/a A 12.8 fl oz/a A 32.0 fl oz/a A 1.0 % v/v A 1 % v/v A 2.13 fl oz/a B 12.8 fl oz/a B 0.25 % v/v B 1 % v/v B		95 ab	94 a	62 ab	0 a	97 a	3 ab
7 ZIDUA SC ENGENIA PURSUIT ROUNDUP POWERMAX MSO CLASS ACT RIDION	2.74 fl oz/a A 12.8 fl oz/a A 3.0 fl oz/a A 32.0 fl oz/a A 1.0 % v/v A 1 % v/v A		97 a	96 a	70 ab	0 a	4 b	1 b

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3,4,5,6,7,8,9
 Could not calculate LSD (% mean diff) for columns 4 because error mean square = 0.

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Pest Type Pest Code Pest Name	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed	W Weed AMBTR Giant ragweed		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	May-26-2017	Jun-7-2017	Jun-19-2017	Jun-19-2017	Jul-12-2017	Jul-12-2017		
Rating Type	CONTROL	CONTROL	CONTROL	PHYGEN	CONTROL	PHYGEN		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	J. IKLEY	M. ZIMMER	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A1	A2	A3	A3	A4	A4		
Days After First/Last Applic.	9 9	21 21	33 33	33 33	56 23	56 23		
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	9 DA-A	9 DA-A		
Days After Emergence	-10 DE-1	2 DE-1	14 DE-1	14 DE-1	37 DE-1	37 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	1	2	3	4	5	6
8 SHREDDER 2.4-D LV4	8 fl oz/a A		80 d	68 c	31 bcd	0 a	98 a	3 ab
ROUNDUP POWERMAX	32 fl oz/a A							
MSO	1 % v/v A							
CLASS ACT RIDION	1 % v/v A							
ZIDUA SC	2.74 fl oz/a B							
ENGENIA	12.8 fl oz/a B							
PURSUIT	3.0 fl oz/a B							
ROUNDUP POWERMAX	32.0 fl oz/a B							
ACTIVATOR 90 NIS	0.25 % v/v B							
CLASS ACT RIDION	1 % v/v B							
9 ZIDUA SC	3.3 fl oz/a A		91 ab	91 a	61 ab	0 a	0 b	0 b
ENGENIA	12.8 fl oz/a A							
PURSUIT	4.0 fl oz/a A							
ROUNDUP POWERMAX	32.0 fl oz/a A							
MSO	1.0 % v/v A							
CLASS ACT RIDION	1 % v/v A							
10 SHREDDER 2.4-D LV4	8 fl oz/a A		83 cd	64 c	13 cd	0 a	98 a	5 a
ROUNDUP POWERMAX	32 fl oz/a A							
MSO	1 % v/v A							
CLASS ACT RIDION	1 % v/v A							
ZIDUA SC	3.3 fl oz/a B							
ENGENIA	12.8 fl oz/a B							
PURSUIT	4.0 fl oz/a B							
ROUNDUP POWERMAX	32.0 fl oz/a B							
ACTIVATOR 90 NIS	0.25 % v/v B							
CLASS ACT RIDION	1 % v/v B							
11 ZIDUA SC	2.74 fl oz/a A		90 ab	91 a	55 abc	0 a	95 a	3 ab
ENGENIA	12.8 fl oz/a A							
PURSUIT	3.0 fl oz/a A							
ROUNDUP POWERMAX	32.0 fl oz/a A							
MSO	1.0 % v/v A							
CLASS ACT RIDION	1 % v/v A							
ZIDUA SC	2.13 fl oz/a B							
ENGENIA	12.8 fl oz/a B							
ACTIVATOR 90 NIS	0.25 % v/v B							
CLASS ACT RIDION	1 % v/v B							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3,4,5,6,7,8,9
 Could not calculate LSD (% mean diff) for columns 4 because error mean square = 0.

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Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	May-26-2017	Jun-7-2017	Jun-19-2017	Jun-19-2017	Jul-12-2017	Jul-12-2017		
Rating Type	CONTROL	CONTROL	CONTROL	PHYGEN	CONTROL	PHYGEN		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	J. IKLEY	M. ZIMMER	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A1	A2	A3	A3	A4	A4		
Days After First/Last Applic.	9 9	21 21	33 33	33 33	56 23	56 23		
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	9 DA-A	9 DA-A		
Days After Emergence	-10 DE-1	2 DE-1	14 DE-1	14 DE-1	37 DE-1	37 DE-1		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate Unit	Appl Code	1	2	3	4	5	6
12 UNTREATED CHECK 2	0 e	0 d	14 cd	0 a	0 b	1 b		
LSD P=.05	5.7	8.4	29.1	.	13.2	2.1		
Standard Deviation	4.0	5.8	20.2	0.0	9.1	1.5		
CV	5.27	8.22	49.64	0.0	26.3	111.75		
Bartlett's X2	11.3	21.912	18.647	0.0	47.709	0.522		
P(Bartlett's X2)	0.185	0.009*	0.068	.	0.001*	0.971		
Skewness	-1.6886*	-1.4337*	-0.0878	.	0.6976*	1.0839*		
Kurtosis	1.0961	0.5253	-1.4557*	.	-1.5124*	-0.673		
Replicate F	3.606	1.135	0.307	0.000	1.576	0.792		
Replicate Prob(F)	0.0238	0.3496	0.8202	1.0000	0.2143	0.5075		
Treatment F	320.905	142.252	6.420	0.000	101.965	5.131		
Treatment Prob(F)	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3,4,5,6,7,8,9
 Could not calculate LSD (% mean diff) for columns 4 because error mean square = 0.

Purdue Weed Science

Pre Zidua Programs in Soybean	
Trial ID: 17S-TPAC-SOY-14	Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-14	Investigator: Dr. Bill Johnson
Project ID: MKD-H-2017-US-S31-X-04.4	Study Director: Dustin Johnson
Sponsor Contact: G. Welker - BASF	

Pest Type	W Weed	GLXMA	GLXMA	W Weed
Pest Code	AMBTR			AMBTR
Pest Name	Giant ragweed			Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jul-26-2017	Jul-26-2017	Jul-26-2017	Aug-18-2017
Rating Type	CONTROL	PHYGEN	PHYGEN	CONTROL
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A5	A5	A5	A6
Days After First/Last Applic.	70 37	70 37	70 37	93 60
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A
Days After Emergence	51 DE-1	51 DE-1	51 DE-1	74 DE-1
ARM Action Codes	P	P	P	P
Number of Decimals	0	0	0	0
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	7	8
1 UNTREATED CHECK			0 b	0 c
2 ZIDUA PRO	6.0 fl oz/a A		3 b	0 c
ROUNDUP POWERMAX	32.0 fl oz/a A			5 d
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
3 ZIDUA PRO	4.5 fl oz/a A		15 b	0 c
ENGENIA	12.8 fl oz/a A			5 d
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
4 ZIDUA PRO	4.5 fl oz/a A		0 b	0 c
TRICOR DF	4.0 oz/a A			5 d
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
5 ZIDUA SC	2.13 fl oz/a A		0 b	0 c
ENGENIA	12.8 fl oz/a A			5 d
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
6 ZIDUA SC	2.13 fl oz/a A		91 a	0 c
ENGENIA	12.8 fl oz/a A			94 a
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
ZIDUA SC	2.13 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
7 ZIDUA SC	2.74 fl oz/a A		0 b	0 c
ENGENIA	12.8 fl oz/a A			5 d
PURSUIT	3.0 fl oz/a A			
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3,4,5,6,7,8,9
 Could not calculate LSD (% mean diff) for columns 4 because error mean square = 0.

Purdue Weed Science

Pre Zidua Programs in Soybean	
Trial ID: 17S-TPAC-SOY-14	Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-14	Investigator: Dr. Bill Johnson
Project ID: MKD-H-2017-US-S31-X-04.4	Study Director: Dustin Johnson
	Sponsor Contact: G. Welker - BASF

Pest Type	W Weed	GLXMA	GLXMA	W Weed
Pest Code	AMBTR			AMBTR
Pest Name	Giant ragweed			Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jul-26-2017	Jul-26-2017	Aug-18-2017	
Rating Type	CONTROL	PHYGEN	CONTROL	
Rating Unit	%	%	%	
Number of Subsamples	1	1	1	
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	
Rating Timing	A5	A5	A6	
Days After First/Last Applic.	70 37	70 37	93 60	
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	
Days After Emergence	51 DE-1	51 DE-1	74 DE-1	
ARM Action Codes	P	P	P	
Number of Decimals	0	0	0	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	7	8
8 SHREDDER 2.4-D LV4	8 fl oz/a A		88 a	3 b
ROUNDUP POWERMAX	32 fl oz/a A			
MSO	1 % v/v A			
CLASS ACT RIDION	1 % v/v A			
ZIDUA SC	2.74 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
PURSUIT	3.0 fl oz/a B			
ROUNDUP POWERMAX	32.0 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
9 ZIDUA SC	3.3 fl oz/a A		0 b	0 c
ENGENIA	12.8 fl oz/a A			
PURSUIT	4.0 fl oz/a A			
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
10 SHREDDER 2.4-D LV4	8 fl oz/a A		87 a	5 a
ROUNDUP POWERMAX	32 fl oz/a A			
MSO	1 % v/v A			
CLASS ACT RIDION	1 % v/v A			
ZIDUA SC	3.3 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
PURSUIT	4.0 fl oz/a B			
ROUNDUP POWERMAX	32.0 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
11 ZIDUA SC	2.74 fl oz/a A		91 a	0 c
ENGENIA	12.8 fl oz/a A			
PURSUIT	3.0 fl oz/a A			
ROUNDUP POWERMAX	32.0 fl oz/a A			
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
ZIDUA SC	2.13 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3,4,5,6,7,8,9
 Could not calculate LSD (% mean diff) for columns 4 because error mean square = 0.

Purdue Weed Science

Pre Zidua Programs in Soybean	
Trial ID: 17S-TPAC-SOY-14	Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-14	Investigator: Dr. Bill Johnson
Project ID: MKD-H-2017-US-S31-X-04.4	Study Director: Dustin Johnson
Sponsor Contact: G. Welker - BASF	

Pest Type	W Weed		W Weed
Pest Code	AMBTR		AMBTR
Pest Name	Giant ragweed		Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -
Rating Date	Jul-26-2017	Jul-26-2017	Aug-18-2017
Rating Type	CONTROL	PHYGEN	CONTROL
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A5	A5	A6
Days After First/Last Applic.	70 37	70 37	93 60
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A
Days After Emergence	51 DE-1	51 DE-1	74 DE-1
ARM Action Codes	P	P	P
Number of Decimals	0	0	0
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
	7	8	9
12 UNTREATED CHECK 2	0 b	0 c	0 d
LSD P=.05	11.5	1.0	4.8
Standard Deviation	8.0	0.7	3.3
CV	25.61	99.5	10.59
Bartlett's X2	16.737	0.0	7.08
P(Bartlett's X2)	0.005*	.	0.069
Skewness	0.7492*	2.3058*	0.8285*
Kurtosis	-1.4386*	3.4622*	-1.3125
Replicate F	0.734	0.970	0.549
Replicate Prob(F)	0.5396	0.4191	0.6523
Treatment F	116.186	23.096	607.496
Treatment Prob(F)	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=1,2,3,4,5,6,7,8,9
 Could not calculate LSD (% mean diff) for columns 4 because error mean square = 0.

Purdue Weed Science

Pre Zidua Programs in Soybean

Trial ID: 17S-TPAC-SOY-14
Protocol ID: 17S-TPAC-SOY-14
Project ID: MKD-H-2017-US-S31-X-04.4

Location: TPAC Trial Year: 2017
Investigator: Dr. Bill Johnson
Study Director: Dustin Johnson
Sponsor Contact: G. Welker - BASF

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

A2 = 2nd Assessment According to trial Schedule

A3 = 3rd Assessment According to Trial Schedule

A4 = 4th Assessment According to Trial Schedule

A5 = 5th Assessment According to Trial Schedule

A6 = 6th Assessment according to Trial Schedule

ARM Action Codes

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

Purdue Weed Science

Pre Zidua Programs in Soybean

Trial ID: 17S-TPAC-SOY-14 Location: TPAC Trial Year: 2017
 Protocol ID: 17S-TPAC-SOY-14 Investigator: Dr. Bill Johnson
 Project ID: MKD-H-2017-US-S31-X-04.4 Study Director: Dustin Johnson
 Sponsor Contact: G. Welker - BASF

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR		
Pest Name	Giant ragweed	Giant ragweed	Giant ragweed	GLXMA	Giant ragweed		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	May-26-2017	Jun-7-2017	Jun-19-2017	Jun-19-2017	Jul-12-2017		
Rating Type	CONTROL	CONTROL	CONTROL	PHYGEN	CONTROL		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	J. IKLEY	M. ZIMMER	D. JOHNSON	D. JOHNSON	D. JOHNSON		
Rating Timing	A1	A2	A3	A3	A4		
Days After First/Last Applic.	9 9	21 21	33 33	33 33	56 23		
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	9 DA-A		
Days After Emergence	-10 DE-1	2 DE-1	14 DE-1	14 DE-1	37 DE-1		
ARM Action Codes	P	P	P	P	P		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
1 UNTREATED CHECK		101	0	0	0	0	0
		404	0	0	0	0	0
		501	0	0	20	0	0
		801	0	0	0	0	0
		Mean =	0	0	5	0	0
2 ZIDUA PRO	6.0 fl oz/a A	102	97	93	80	0	25
ROUNDUP POWERMAX	32.0 fl oz/a A	402	90	85	50	0	0
MSO	1.0 % v/v A	505	95	88	5	0	0
CLASS ACT RIDION	1 % v/v A	704	80	70	70	0	0
		Mean =	91	84	51	0	6
3 ZIDUA PRO	4.5 fl oz/a A	103	99	99	97	0	60
ENGENIA	12.8 fl oz/a A	406	97	90	70	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	503	99	99	78	0	20
MSO	1.0 % v/v A	705	95	93	70	0	0
CLASS ACT RIDION	1 % v/v A						
		Mean =	98	95	79	0	20
4 ZIDUA PRO	4.5 fl oz/a A	104	95	88	25	0	0
TRICOR DF	4.0 oz/a A	303	85	75	20	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	606	85	65	0	0	0
MSO	1.0 % v/v A	702	85	80	0	0	0
CLASS ACT RIDION	1 % v/v A						
		Mean =	88	77	11	0	0
5 ZIDUA SC	2.13 fl oz/a A	105	97	95	40	0	0
ENGENIA	12.8 fl oz/a A	306	85	88	35	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	601	99	97	5	0	0
MSO	1.0 % v/v A	805	95	90	70	0	0
CLASS ACT RIDION	1 % v/v A						
		Mean =	94	93	38	0	0
6 ZIDUA SC	2.13 fl oz/a A	106	95	95	50	0	95
ENGENIA	12.8 fl oz/a A	405	95	90	60	0	96
ROUNDUP POWERMAX	32.0 fl oz/a A	602	95	93	60	0	98
MSO	1.0 % v/v A	802	95	97	77	0	97
CLASS ACT RIDION	1 % v/v A						
ZIDUA SC	2.13 fl oz/a B						
ENGENIA	12.8 fl oz/a B						
ACTIVATOR 90 NIS	0.25 % v/v B						
CLASS ACT RIDION	1 % v/v B						
		Mean =	95	94	62	0	97
7 ZIDUA SC	2.74 fl oz/a A	201	97	93	65	0	0
ENGENIA	12.8 fl oz/a A	304	95	95	78	0	0
PURSUIT	3.0 fl oz/a A	504	99	99	60	0	15
ROUNDUP POWERMAX	32.0 fl oz/a A	803	97	95	75	0	0
MSO	1.0 % v/v A						
CLASS ACT RIDION	1 % v/v A						
		Mean =	97	96	70	0	4

Purdue Weed Science

Pre Zidua Programs in Soybean	
Trial ID: 17S-TPAC-SOY-14	Location: TPAC Trial Year: 2017
Protocol ID: 17S-TPAC-SOY-14	Investigator: Dr. Bill Johnson
Project ID: MKD-H-2017-US-S31-X-04.4	Study Director: Dustin Johnson
Sponsor Contact: G. Welker - BASF	

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Pest Name	Giant ragweed	Giant ragweed	Giant ragweed	GLXMA	Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	May-26-2017	Jun-7-2017	Jun-19-2017	Jun-19-2017	Jul-12-2017
Rating Type	CONTROL	CONTROL	CONTROL	PHYGEN	CONTROL
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	J. IKLEY	M. ZIMMER	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A1	A2	A3	A3	A4
Days After First/Last Applic.	9 9	21 21	33 33	33 33	56 23
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	9 DA-A
Days After Emergence	-10 DE-1	2 DE-1	14 DE-1	14 DE-1	37 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	1	2	3
8 SHREDDER 2.4-D LV4	8 fl oz/a A	202	75	60	0
ROUNDUP POWERMAX	32 fl oz/a A	401	79*	67*	31*
MSO	1 % v/v A	502	90	85	84
CLASS ACT RIDION	1 % v/v A	804	75	60	10
ZIDUA SC	2.74 fl oz/a B				
ENGENIA	12.8 fl oz/a B				
PURSUIT	3.0 fl oz/a B				
ROUNDUP POWERMAX	32.0 fl oz/a B				
ACTIVATOR 90 NIS	0.25 % v/v B				
CLASS ACT RIDION	1 % v/v B				
	Mean =		80	68	31
9 ZIDUA SC	3.3 fl oz/a A	203	90	93	70
ENGENIA	12.8 fl oz/a A	302	95	93	70
PURSUIT	4.0 fl oz/a A	604	95	90	45
ROUNDUP POWERMAX	32.0 fl oz/a A	806	85	88	60
MSO	1.0 % v/v A				
CLASS ACT RIDION	1 % v/v A				
	Mean =		91	91	61
10 SHREDDER 2.4-D LV4	8 fl oz/a A	204	85	65	0
ROUNDUP POWERMAX	32 fl oz/a A	301	85	65	15
MSO	1 % v/v A	506	80	60	10
CLASS ACT RIDION	1 % v/v A	701	80	65	25
ZIDUA SC	3.3 fl oz/a B				
ENGENIA	12.8 fl oz/a B				
PURSUIT	4.0 fl oz/a B				
ROUNDUP POWERMAX	32.0 fl oz/a B				
ACTIVATOR 90 NIS	0.25 % v/v B				
CLASS ACT RIDION	1 % v/v B				
	Mean =		83	64	13
11 ZIDUA SC	2.74 fl oz/a A	205	95	93	60
ENGENIA	12.8 fl oz/a A	403	90	88	60
PURSUIT	3.0 fl oz/a A	603	90	90	40
ROUNDUP POWERMAX	32.0 fl oz/a A	706	85	93	60
MSO	1.0 % v/v A				
CLASS ACT RIDION	1 % v/v A				
ZIDUA SC	2.13 fl oz/a B				
ENGENIA	12.8 fl oz/a B				
ACTIVATOR 90 NIS	0.25 % v/v B				
CLASS ACT RIDION	1 % v/v B				
	Mean =		90	91	55
12 UNTREATED CHECK 2		206	0	0	0
		305	0	0	0
		605	0	0	35
		703	0	0	20
	Mean =		0	0	14

Purdue Weed Science

Pre Zidua Programs in Soybean

Trial ID: 17S-TPAC-SOY-14
 Protocol ID: 17S-TPAC-SOY-14
 Project ID: MKD-H-2017-US-S31-X-04.4

Location: TPAC Trial Year: 2017
 Investigator: Dr. Bill Johnson
 Study Director: Dustin Johnson
 Sponsor Contact: G. Welker - BASF

Pest Type	W Weed	AMBTR	Giant ragweed	W Weed
Pest Code	GLXMA	GLXMA	GLXMA	GLXMA
Pest Name	Soybean	Soybean	Soybean	Soybean
Crop Code	PLOT -	PLOT -	PLOT -	PLOT -
Crop Name	Jul-12-2017	Jul-26-2017	Jul-26-2017	Aug-18-2017
Part Rated	PHYGEN	CONTROL	PHYGEN	CONTROL
Rating Date	%	%	%	%
Rating Type	1	1	1	1
Rating Unit	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Number of Subsamples	A4	A5	A5	A6
Assessed By	56 23	70 37	70 37	93 60
Rating Timing	9 DA-A	9 DA-A	9 DA-A	9 DA-A
Days After First/Last Applic.	37 DE-1	51 DE-1	51 DE-1	74 DE-1
Trt-Eval Interval	P	P	P	P
Days After Emergence	0	0	0	0
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	6	7
1 UNTREATED CHECK		101	0	0
		404	0	0
		501	0	0
		801	0	0
		Mean =	0	0
2 ZIDUA PRO	6.0 fl oz/a A	102	0	10
ROUNDUP POWERMAX	32.0 fl oz/a A	402	0	0
MSO	1.0 % v/v A	505	0	0
CLASS ACT RIDION	1 % v/v A	704	0	0
		Mean =	0	3
3 ZIDUA PRO	4.5 fl oz/a A	103	0	50
ENGENIA	12.8 fl oz/a A	406	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	503	0	10
MSO	1.0 % v/v A	705	0	0
CLASS ACT RIDION	1 % v/v A			
		Mean =	0	15
4 ZIDUA PRO	4.5 fl oz/a A	104	0	0
TRICOR DF	4.0 oz/a A	303	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	606	0	0
MSO	1.0 % v/v A	702	0	0
CLASS ACT RIDION	1 % v/v A			
		Mean =	0	0
5 ZIDUA SC	2.13 fl oz/a A	105	0	0
ENGENIA	12.8 fl oz/a A	306	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	601	0	0
MSO	1.0 % v/v A	805	0	0
CLASS ACT RIDION	1 % v/v A			
		Mean =	0	0
6 ZIDUA SC	2.13 fl oz/a A	106	0	88
ENGENIA	12.8 fl oz/a A	405	4	92
ROUNDUP POWERMAX	32.0 fl oz/a A	602	3	88
MSO	1.0 % v/v A	802	3	95
CLASS ACT RIDION	1 % v/v A			
ZIDUA SC	2.13 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
		Mean =	3	91
7 ZIDUA SC	2.74 fl oz/a A	201	5	0
ENGENIA	12.8 fl oz/a A	304	0	0
PURSUIT	3.0 fl oz/a A	504	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A	803	0	0
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
		Mean =	1	0

Purdue Weed Science

Pre Zidua Programs in Soybean

Trial ID: 17S-TPAC-SOY-14
 Protocol ID: 17S-TPAC-SOY-14
 Project ID: MKD-H-2017-US-S31-X-04.4

Location: TPAC Trial Year: 2017
 Investigator: Dr. Bill Johnson
 Study Director: Dustin Johnson
 Sponsor Contact: G. Welker - BASF

Pest Type		W Weed		W Weed
Pest Code		AMBTR		AMBTR
Pest Name		Giant ragweed		Giant ragweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jul-12-2017	Jul-26-2017	Jul-26-2017	Aug-18-2017
Rating Type	PHYGEN	CONTROL	PHYGEN	CONTROL
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
Rating Timing	A4	A5	A5	A6
Days After First/Last Applic.	56 23	70 37	70 37	93 60
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A
Days After Emergence	37 DE-1	51 DE-1	51 DE-1	74 DE-1
ARM Action Codes	P	P	P	P
Number of Decimals	0	0	0	0
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code Plot	6	7	8
8 SHREDDER 2.4-D LV4	8 fl oz/a A 202	0	78	5
ROUNDUP POWERMAX	32 fl oz/a A 401	3*	86*	3*
MSO	1 % v/v A 502	3	97	0
CLASS ACT RIDION	1 % v/v A 804	5	90	5
ZIDUA SC	2.74 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
PURSUIT	3.0 fl oz/a B			
ROUNDUP POWERMAX	32.0 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
	Mean =	3	88	3
9 ZIDUA SC	3.3 fl oz/a A 203	0	0	0
ENGENIA	12.8 fl oz/a A 302	0	0	0
PURSUIT	4.0 fl oz/a A 604	0	0	0
ROUNDUP POWERMAX	32.0 fl oz/a A 806	0	0	0
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
	Mean =	0	0	0
10 SHREDDER 2.4-D LV4	8 fl oz/a A 204	5	85	5
ROUNDUP POWERMAX	32 fl oz/a A 301	5	80	5
MSO	1 % v/v A 506	5	87	5
CLASS ACT RIDION	1 % v/v A 701	5	95	5
ZIDUA SC	3.3 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
PURSUIT	4.0 fl oz/a B			
ROUNDUP POWERMAX	32.0 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
	Mean =	5	87	5
11 ZIDUA SC	2.74 fl oz/a A 205	0	95	0
ENGENIA	12.8 fl oz/a A 403	4	92	0
PURSUIT	3.0 fl oz/a A 603	5	85	0
ROUNDUP POWERMAX	32.0 fl oz/a A 706	3	90	0
MSO	1.0 % v/v A			
CLASS ACT RIDION	1 % v/v A			
ZIDUA SC	2.13 fl oz/a B			
ENGENIA	12.8 fl oz/a B			
ACTIVATOR 90 NIS	0.25 % v/v B			
CLASS ACT RIDION	1 % v/v B			
	Mean =	3	91	0
12 UNTREATED CHECK 2	206	0	0	0
	305	0	0	0
	605	0	0	0
	703	5	0	0
	Mean =	1	0	0

Purdue Weed Science

Pre Zidua Programs in Soybean

Trial ID: 17S-TPAC-SOY-14
Protocol ID: 17S-TPAC-SOY-14
Project ID: MKD-H-2017-US-S31-X-04.4

Location: TPAC Trial Year: 2017
Investigator: Dr. Bill Johnson
Study Director: Dustin Johnson
Sponsor Contact: G. Welker - BASF

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Code

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLOT = plot

Rating Type

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

A2 = 2nd Assessment According to trial Schedule

A3 = 3rd Assessment According to Trial Schedule

A4 = 4th Assessment According to Trial Schedule

A5 = 5th Assessment According to Trial Schedule

A6 = 6th Assessment according to Trial Schedule

ARM Action Codes

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