

The Ohio State University

Engenia soybean weed control in No-Till

Trial ID: 16 DTSNT
 Protocol ID: 16 DTSNT
 Project ID: MKD-H-2016-US-D07-B-01.0

Location: Western Branch Trial Year: 2016
 Investigator: Dr. Mark M. Loux
 Study Director: Bryan Reeb
 Sponsor Contact: Trevor Kraus, BASF

General Trial Information

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Latitude of LL Corner °: 39.8587 N
Longitude of LL Corner °: 83.67198 W
Altitude of LL Corner, Unit: 1087.00 FT

Directions:

LR CORNER: 39.85872N, -83.67216W; 1089 FT
 TR CORNER: 39.85817N, -83.67226W; 1091 FT
 TL CORNER: 39.85815N, -83.67207W; 1088FT

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Bryan Reeb

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 36X6
Description: Xtend **BBCH Scale:** BSOY

Planting Rate, Unit: 150000 S/A

Depth, Unit: 1 IN

Row Spacing, Unit: 30 IN

Seed Bed: FINTRA fine/trashy

Planting Date: 4-25-2016

Planting Method: SEEDED seeded

Planting Equipment: FE Field Equipment

Emergence Date: 5-11-2016

Pest Description

Pest 1 Type: W **Code:** ERYRE Erysimum repandum
Common Name: Bushy wallflower

Pest 2 Type: W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel

Pest 3 Type: W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion

Pest 4 Type: W **Code:** LEPCA Lepidium campestre
Common Name: Field pepperweed

Pest 5 Type: W **Code:** ERICA Erigeron canadensis
Common Name: Canada horseweed

Pest 6 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Pest 7 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 8 Type: W **Code:** CHEAL Chenopodium album
Common Name: Common lambsquarters

Pest 9 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

Pest10 Type: W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed

Site and Design

Treated Plot Width: 6.67 FT

Treated Plot Length: 30 FT

Treated Plot Area: 200.1 FT² **Treatments:** 10

Replications: 3

Site Type: FIELD field

Experimental Unit: 1 PLOT plot

Tillage Type: NOTILL no-till

Study Design: RACOBL Randomized Complete Block (RCB)

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Soil Description

Description Name: F-10 West
 % OM: 1.5 Texture: SIL silt loam
 pH: 5.8 Soil Name: Crosby Silt Loam
 CEC: 13 Fert. Level: G good
 Soil Drainage: G good

Application Description

	A	B	C
Application Date:	4-20-2016	5-31-2016	6-20-2016
Appl. Start Time:	9:00 AM	11:15 AM	9:00 AM
Appl. Stop Time:	9:30 AM	11:30 AM	9:15 AM
Interval to Prev. Appl., Unit:	41 DAYS	20 DAYS	20 DAYS
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	7 EPP	POST 2-3"WDS	3" WDS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	DOBBELS	BOLTE	BOLTE
Air Temperature, Unit:	55 F	83 F	79 F
% Relative Humidity:	42	36	72
Wind Velocity, Unit:	8.3 MPH	0.5 MPH	10 MPH
Wind Direction:	EAST	S	WSW
Dew Presence (Y/N):	N no	Y yes	N no
Soil Temperature, Unit:	50 F	70 F	73 F
Soil Moisture:	DRY	MOIST	DRY
% Cloud Cover:	30	10	75
Next Moisture Occurred On:	4-21-2016	6-4-2016	6-23-2016
Time to Next Moisture, Unit:	1 DAY	4 DAY	3 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH	BBCH
Stage Majority, Percent:	12	100	17 100
Height, Unit:	5	IN	12 IN

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Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ERYRE W	ERYRE W	ERYRE W
Stage Majority, Percent:	65 100		
Height, Unit:	12 IN		
Height Minimum, Maximum:	10 12		
Density, Unit:	10 m2		
Pest 2 Code, Type, Scale:	LAMPU W	LAMPU W	LAMPU W
Stage Majority, Percent:	67 100		
Height, Unit:	7 IN		
Height Minimum, Maximum:	6 8		
Density, Unit:	6 m2		
Pest 3 Code, Type, Scale:	TAROF W	TAROF W	TAROF W
Stage Majority, Percent:	65 100		
Diameter, Unit:	6 IN		
Height, Unit:	3 IN		
Height Minimum, Maximum:	2 6		
Density, Unit:	1 m2		
Pest 4 Code, Type, Scale:	LEPCA W	LEPCA W	LEPCA W
Stage Majority, Percent:	65 100		
Height, Unit:	12 IN		
Height Minimum, Maximum:	10 12		
Density, Unit:	2 m2		
Pest 5 Code, Type, Scale:	ERICA W	ERICA W	ERICA W
Stage Majority, Percent:	19 100	19 100	19 100
Diameter, Unit:	2 IN		
Height, Unit:	1 IN	5 IN	15 IN
Height Minimum, Maximum:	0.5 2	4 6	12 15
Density, Unit:	8 m2		
Pest 6 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	12 100	16 100	19 100
Height, Unit:	2 IN	5 IN	14 IN
Height Minimum, Maximum:	1 3	4 6	12 15
Density, Unit:	5 m2		
Pest 7 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		13 100	15 100
Height, Unit:		4 IN	13 IN
Height Minimum, Maximum:		2 4	12 14
Pest 8 Code, Type, Scale:	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent:		16 100	19 100
Height, Unit:		3 IN	10 IN
Height Minimum, Maximum:		2 4	6 12
Pest 9 Code, Type, Scale:	AMARE W	AMARE W	AMARE W
Stage Majority, Percent:		14 100	18 100
Height, Unit:		2 IN	8 IN
Height Minimum, Maximum:		1 2	6 9
Pest10 Code, Type, Scale:	AMARE W	AMARE W	AMARE W
Stage Majority, Percent:			18 100
Height, Unit:			7 IN
Height Minimum, Maximum:			6 8

Application Equipment

	A	B	C
Appl. Equipment:	6' BACKPACK	6' BACKPACK	6' BACKPACK
Equipment Type:	BACCAI	BACCAI	BACCAI
Operation Pressure, Unit:	44 PSI	44 PSI	44 PSI
Nozzle Type:	AIXR	TTI	TTI
Nozzle Size:	11015	11015	11015
Nozzle Spacing, Unit:	18 IN	18 IN	18 IN
Nozzles/Row:	4	4	4
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT
Boom Height, Unit:	20 IN	20 IN	20 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:	1 liters	1 liters	1 liters
Propellant:	COMCO2	COMCO2	COMCO2

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	SETFA	AMBTR	ERICA	SETFA	SETPU						
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Erigeron canad>	Setaria faberi	Setaria pumila						
Pest Name	Giant foxtail	Giant ragweed	Canada horsewe>	Giant foxtail	yellow foxtail						
Rating Date	6-1-2016	6-1-2016	6-1-2016	6-15-2016	6-15-2016						
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO						
Rating Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
SE Group No.	1	2	3	4	5						
Days After First/Last Applic.	42 1	42 1	42 1	56 15	56 15						
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	51 DP-1	51 DP-1						
Days After Emergence	21 DE-1	21 DE-1	21 DE-1	35 DE1	35 DE-1						
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit	Code	1*	2*	3*	4*	5*	6*
1	Roundup Power Max	32 oz/a		A		0.0 c	0.0 -	20.0 b	1.7 -	80.0 b	73.3 b
	2,4-D Ester	16 oz/a		A							
	Crop Oil Concentrat	0.6 qt/a		A							
	N-pak ams	1.5 qt/a		A							
	Roundup Power Max	32 oz/a		B							
	N-pak ams	1.5 qt/a		B							
2	Roundup Power Max	32 oz/a		A		56.7 ab	56.7 -	33.3 b	1.7 -	80.0 b	80.0 ab
	2,4-D Ester	16 oz/a		A							
	Sonic	5 oz/a		A							
	MSO	0.6 qt/a		A							
	N-pak ams	1.5 qt/a		A							
	Flexstar GT 3.5	48 fl oz/a		B							
	Crop Oil Concentrat	0.6 qt/a		B							
	N-pak ams	1.5 qt/a		B							
3	Zidua Pro	6 oz/a		A		43.3 abc	30.0 -	20.0 b	1.0 -	90.0 a	90.0 a
	Roundup Power Max	32 oz/a		A							
	MSO	0.6 qt/a		A							
	N-pak ams	1.5 qt/a		A							
	Engenia	12.8 oz/a		B							
	Outlook	12 oz/a		B							
	Roundup Power Max	32 oz/a		B							
4	Zidua Pro	6 oz/a		A		68.3 a	70.0 -	30.0 b	0.0 -	86.7 ab	76.7 b
	Roundup Power Max	32 oz/a		A							
	MSO	0.6 qt/a		A							
	N-pak ams	1.5 qt/a		A							
	Engenia	12.8 oz/a		B							
	Roundup Power Max	32 oz/a		B							
5	Roundup Power Max	32 oz/a		A		0.0 c	36.7 -	20.0 b	0.0 -	80.0 b	76.7 b
	2,4-D Ester	16 oz/a		A							
	Crop Oil Concentrat	0.6 qt/a		A							
	N-pak ams	1.5 qt/a		A							
	BAS 18309H DGA Clarity	16 oz/a		B							
	Roundup Power Max	32 oz/a		B							
6	Zidua Pro	6 oz/a		A		51.7 ab	40.0 -	33.3 b	1.0 -	80.0 b	70.0 b
	Roundup Power Max	32 oz/a		A							
	MSO	0.6 qt/a		A							
	N-pak ams	1.5 qt/a		A							
	Roundup Power Max	32 oz/a		B							
	N-pak ams	1.5 qt/a		B							
7	Zidua Pro	6 oz/a		A		26.7 abc	23.3 -	91.7 a	0.0 -	0.0 c	0.0 c
	Roundup Power Max	32 oz/a		A							
	Engenia	12.8 oz/a		A							
	MSO	0.6 qt/a		A							
	Roundup Power Max	32 oz/a		C							
	N-pak ams	1.5 qt/a		C							

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 10 because error mean square = 0.

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Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Erigeron canad>	Setaria faberi	Setaria pumila					
Pest Name	Giant foxtail	Giant ragweed	Canada horsewe>	Giant foxtail	yellow foxtail					
Rating Date	6-1-2016	6-1-2016	6-1-2016	6-15-2016	6-15-2016					
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
SE Group No.	1	2	3	4	5					
Days After First/Last Applic.	42 1	42 1	42 1	56 15	56 15					
Plant-Eval Interval	37 DP-1	37 DP-1	37 DP-1	51 DP-1	51 DP-1					
Days After Emergence	21 DE-1	21 DE-1	21 DE-1	35 DE1	35 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate Unit	Appl Code	1*	2*	3*	4*	5*	6*
8	Verdict	5 oz/a	A		13.3 bc	10.0 -	16.7 b	0.0 -	0.0 c	0.0 c
	Metribuzin	5 oz/a	A							
	Roundup Power Max	32 oz/a	A							
	MSO	0.6 qt/a	A							
	N-pak ams	1.5 qt/a	A							
	Engenia	12.8 oz/a	C							
	Roundup Power Max	32 oz/a	C							
9	Verdict	5 oz/a	A		0.0 c	56.7 -	73.3 a	0.0 -	0.0 c	0.0 c
	Metribuzin	5 oz/a	A							
	Roundup Power Max	32 oz/a	A							
	Engenia	12.8 oz/a	A							
	MSO	0.6 qt/a	A							
	Roundup Power Max	32 oz/a	C							
	N-pak ams	1.5 qt/a	C							
10	BAS 18309H DGA Clarity	16 oz/a	A		13.3 bc	23.3 -	90.0 a	0.0 -	0.0 c	0.0 c
	Roundup Power Max	32 oz/a	A							
	BAS 18309H DGA Clarity	16 oz/a	C							
	Roundup Power Max	32 oz/a	C							
	LSD P=.05				48.68	53.68	29.19	2.62	7.88	12.74
	Standard Deviation				28.38	31.29	17.02	1.53	4.59	7.43
	CV				103.82	90.27	39.73	286.64	9.25	15.92
	Bartlett's X2				2.954	3.41	1.076	0.942	0.04	3.138
	P(Bartlett's X2)				0.815	0.906	0.994	0.815	0.841	0.535
	Skewness				0.8119	0.6565	0.7381	2.5705*	-0.3761	-0.268
	Kurtosis				-0.7123	-0.7694	-0.6524	5.462*	-1.8987*	-1.8329*
	Replicate F				0.076	0.667	0.815	0.699	2.053	5.497
	Replicate Prob(F)				0.9275	0.5254	0.4585	0.5101	0.1574	0.0137
	Treatment F				2.493	1.477	9.364	0.672	261.211	89.128
	Treatment Prob(F)				0.0473	0.2298	0.0001	0.7238	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	AMBTR	CHEAL	ERICA	SETFA	SETPU					
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Erigeron canad>	Setaria faberi	Setaria pumila					
Pest Name	Giant ragweed	Common lambsqu>	Canada horsewe>	Giant foxtail	yellow foxtail					
Rating Date	6-15-2016	6-15-2016	6-15-2016	7-6-2016	7-6-2016					
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
SE Group No.	7	8	9	10	11					
Days After First/Last Applic.	56 15	56 15	56 15	77 16	77 16					
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	72 DP-1	72 DP-1					
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	56 DE1	56 DE-1					
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	7*	8*	9*	10*	11*	12*
1	Roundup Power Max	32 oz/a		A	90.0 ab	100.0 a	33.3 cd	0.0 -	20.0 bc	20.0 bc
	2,4-D Ester	16 oz/a		A						
	Crop Oil Concentrat	0.6 qt/a		A						
	N-pak ams	1.5 qt/a		A						
	Roundup Power Max	32 oz/a		B						
	N-pak ams	1.5 qt/a		B						
2	Roundup Power Max	32 oz/a		A	88.3 ab	100.0 a	36.7 bc	0.0 -	33.3 bc	23.3 bc
	2,4-D Ester	16 oz/a		A						
	Sonic	5 oz/a		A						
	MSO	0.6 qt/a		A						
	N-pak ams	1.5 qt/a		A						
	Flexstar GT 3.5	48 fl oz/a		B						
	Crop Oil Concentrat	0.6 qt/a		B						
	N-pak ams	1.5 qt/a		B						
3	Zidua Pro	6 oz/a		A	100.0 a	100.0 a	83.3 a	0.0 -	40.0 b	33.3 b
	Roundup Power Max	32 oz/a		A						
	MSO	0.6 qt/a		A						
	N-pak ams	1.5 qt/a		A						
	Engenia	12.8 oz/a		B						
	Outlook	12 oz/a		B						
	Roundup Power Max	32 oz/a		B						
4	Zidua Pro	6 oz/a		A	100.0 a	100.0 a	86.7 a	0.0 -	20.0 bc	16.7 bc
	Roundup Power Max	32 oz/a		A						
	MSO	0.6 qt/a		A						
	N-pak ams	1.5 qt/a		A						
	Engenia	12.8 oz/a		B						
	Roundup Power Max	32 oz/a		B						
5	Roundup Power Max	32 oz/a		A	100.0 a	100.0 a	86.7 a	0.0 -	36.7 bc	20.0 bc
	2,4-D Ester	16 oz/a		A						
	Crop Oil Concentrat	0.6 qt/a		A						
	N-pak ams	1.5 qt/a		A						
	BAS 18309H DGA Clarity	16 oz/a		B						
	Roundup Power Max	32 oz/a		B						
6	Zidua Pro	6 oz/a		A	90.0 ab	100.0 a	43.3 bc	0.0 -	6.7 c	0.0 c
	Roundup Power Max	32 oz/a		A						
	MSO	0.6 qt/a		A						
	N-pak ams	1.5 qt/a		A						
	Roundup Power Max	32 oz/a		B						
	N-pak ams	1.5 qt/a		B						
7	Zidua Pro	6 oz/a		A	13.3 c	100.0 a	63.3 ab	0.0 -	88.3 a	88.3 a
	Roundup Power Max	32 oz/a		A						
	Engenia	12.8 oz/a		A						
	MSO	0.6 qt/a		A						
	Roundup Power Max	32 oz/a		C						
	N-pak ams	1.5 qt/a		C						

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Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Erigeron canad>	Setaria faberi	Setaria pumila				
Pest Name	Giant ragweed	Common lambsqu>	Canada horsewe>	Giant foxtail	yellow foxtail				
Rating Date	6-15-2016	6-15-2016	6-15-2016	7-6-2016	7-6-2016				
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
SE Group No.	7	8	9	10	11				
Days After First/Last Applic.	56 15	56 15	56 15	77 16	77 16				
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	72 DP-1	72 DP-1				
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	56 DE1	56 DE-1				
Trt Treatment No. Name	Other Rate	Other Rate	Appl Unit Code	7*	8*	9*	10*	11*	12*
8 Verdict	5 oz/a		A	0.0 c	0.0 c	6.7 d	0.0 -	83.3 a	83.3 a
Metribuzin	5 oz/a		A						
Roundup Power Max	32 oz/a		A						
MSO	0.6 qt/a		A						
N-pak ams	1.5 qt/a		A						
Engenia	12.8 oz/a		C						
Roundup Power Max	32 oz/a		C						
9 Verdict	5 oz/a		A	66.7 b	40.0 b	26.7 cd	0.0 -	90.0 a	90.0 a
Metribuzin	5 oz/a		A						
Roundup Power Max	32 oz/a		A						
Engenia	12.8 oz/a		A						
MSO	0.6 qt/a		A						
Roundup Power Max	32 oz/a		C						
N-pak ams	1.5 qt/a		C						
10 BAS 18309H DGA Clarity	16 oz/a		A	6.7 c	16.7 bc	40.0 bc	0.0 -	90.0 a	87.0 a
Roundup Power Max	32 oz/a		A						
BAS 18309H DGA Clarity	16 oz/a		C						
Roundup Power Max	32 oz/a		C						
LSD P=.05				25.67	24.73	29.14	.	30.48	27.93
Standard Deviation				14.97	14.41	16.99	0.00	17.77	16.28
CV				22.85	19.05	33.52	0.0	34.95	35.24
Bartlett's X2				4.025	0.096	13.081	0.0	8.291	9.92
P(Bartlett's X2)				0.546	0.757	0.159	.	0.308	0.193
Skewness				-0.6758	-1.2734*	0.1336	.	-0.196	0.0109
Kurtosis				-1.3908	-0.1824	-1.3562	.	-1.5183	-1.7593*
Replicate F				1.083	1.267	0.358	0.000	1.111	2.012
Replicate Prob(F)				0.3597	0.3055	0.7038	1.0000	0.3506	0.1627
Treatment F				23.465	23.460	8.082	0.000	10.568	14.846
Treatment Prob(F)				0.0001	0.0001	0.0001	1.0000	0.0001	0.0001

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Pest Name	Giant ragweed	Common lambsqu>	Canada horsewe>				
Rating Date	7-6-2016	7-6-2016	7-6-2016				
Rating Type	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%				
Number of Subsamples	1	1	1				
SE Group No.	13	14	15				
Days After First/Last Applic.	77 16	77 16	77 16				
Plant-Eval Interval	72 DP-1	72 DP-1	72 DP-1				
Days After Emergence	56 DE-1	56 DE-1	56 DE-1				
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	13*	14*	15*
1	Roundup Power Max	32 oz/a		A	50.0 c	83.3 b	13.3 c
	2,4-D Ester	16 oz/a		A			
	Crop Oil Concentrat	0.6 qt/a		A			
	N-pak ams	1.5 qt/a		A			
	Roundup Power Max	32 oz/a		B			
	N-pak ams	1.5 qt/a		B			
2	Roundup Power Max	32 oz/a		A	40.0 c	100.0 a	20.0 c
	2,4-D Ester	16 oz/a		A			
	Sonic	5 oz/a		A			
	MSO	0.6 qt/a		A			
	N-pak ams	1.5 qt/a		A			
	Flexstar GT 3.5	48 fl oz/a		B			
	Crop Oil Concentrat	0.6 qt/a		B			
	N-pak ams	1.5 qt/a		B			
3	Zidua Pro	6 oz/a		A	63.3 abc	100.0 a	93.3 a
	Roundup Power Max	32 oz/a		A			
	MSO	0.6 qt/a		A			
	N-pak ams	1.5 qt/a		A			
	Engenia	12.8 oz/a		B			
	Outlook	12 oz/a		B			
	Roundup Power Max	32 oz/a		B			
4	Zidua Pro	6 oz/a		A	100.0 a	100.0 a	100.0 a
	Roundup Power Max	32 oz/a		A			
	MSO	0.6 qt/a		A			
	N-pak ams	1.5 qt/a		A			
	Engenia	12.8 oz/a		B			
	Roundup Power Max	32 oz/a		B			
5	Roundup Power Max	32 oz/a		A	76.7 abc	100.0 a	100.0 a
	2,4-D Ester	16 oz/a		A			
	Crop Oil Concentrat	0.6 qt/a		A			
	N-pak ams	1.5 qt/a		A			
	BAS 18309H DGA Clarity	16 oz/a		B			
	Roundup Power Max	32 oz/a		B			
6	Zidua Pro	6 oz/a		A	60.0 bc	100.0 a	33.3 bc
	Roundup Power Max	32 oz/a		A			
	MSO	0.6 qt/a		A			
	N-pak ams	1.5 qt/a		A			
	Roundup Power Max	32 oz/a		B			
	N-pak ams	1.5 qt/a		B			
7	Zidua Pro	6 oz/a		A	56.7 bc	100.0 a	30.0 bc
	Roundup Power Max	32 oz/a		A			
	Engenia	12.8 oz/a		A			
	MSO	0.6 qt/a		A			
	Roundup Power Max	32 oz/a		C			
	N-pak ams	1.5 qt/a		C			

The Ohio State University

Engenia soybean weed control in No-Till

Trial ID: 16 DTSNT
 Protocol ID: 16 DTSNT
 Project ID: MKD-H-2016-US-D07-B-01.0

Location: Western Branch Trial Year: 2016
 Investigator: Dr. Mark M. Loux
 Study Director: Bryan Reeb
 Sponsor Contact: Trevor Kraus, BASF

Pest Type	W Weed	W Weed	W Weed			
Pest Code	AMBTR	CHEAL	ERICA			
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Erigeron canad>			
Pest Name	Giant ragweed	Common lambsqu>	Canada horsewe>			
Rating Date	7-6-2016	7-6-2016	7-6-2016			
Rating Type	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%			
Number of Subsamples	1	1	1			
SE Group No.	13	14	15			
Days After First/Last Applic.	77 16	77 16	77 16			
Plant-Eval Interval	72 DP-1	72 DP-1	72 DP-1			
Days After Emergence	56 DE-1	56 DE-1	56 DE-1			
Trt Treatment No. Name	Other Rate	Other Rate	Appl Unit Code	13*	14*	15*
8 Verdict	5 oz/a		A	93.3 ab	96.7 a	76.7 a
Metribuzin	5 oz/a		A			
Roundup Power Max	32 oz/a		A			
MSO	0.6 qt/a		A			
N-pak ams	1.5 qt/a		A			
Engenia	12.8 oz/a		C			
Roundup Power Max	32 oz/a		C			
9 Verdict	5 oz/a		A	100.0 a	100.0 a	46.7 b
Metribuzin	5 oz/a		A			
Roundup Power Max	32 oz/a		A			
Engenia	12.8 oz/a		A			
MSO	0.6 qt/a		A			
Roundup Power Max	32 oz/a		C			
N-pak ams	1.5 qt/a		C			
10 BAS 18309H DGA Clarity	16 oz/a		A	100.0 a	96.7 a	86.7 a
Roundup Power Max	32 oz/a		A			
BAS 18309H DGA Clarity	16 oz/a		C			
Roundup Power Max	32 oz/a		C			
LSD P=.05				38.12	8.80	25.64
Standard Deviation				22.22	5.13	14.94
CV				30.03	5.25	24.91
Bartlett's X2				9.924	2.585	6.033
P(Bartlett's X2)				0.128	0.275	0.42
Skewness				-0.9717*	-3.2188*	-0.2578
Kurtosis				0.1585	10.4599*	-1.5304
Replicate F				0.182	2.408	0.851
Replicate Prob(F)				0.8349	0.1183	0.4436
Treatment F				3.208	3.113	16.219
Treatment Prob(F)				0.0169	0.0193	0.0001

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Engenia soybean weed control in No-Till

Trial ID: 16 DTSNT
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Project ID: MKD-H-2016-US-D07-B-01.0

Location: Western Branch Trial Year: 2016
Investigator: Dr. Mark M. Loux
Study Director: Bryan Reeb
Sponsor Contact: Trevor Kraus, BASF

Pest Type

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

Pest Code

SETFA, Setaria faberi, = US
AMBTR, Ambrosia trifida, = US
ERICA, Erigeron canadensis, = US
SETPU, Setaria pumila, = US
CHEAL, Chenopodium album, = US

Rating Type

CONTRO = control / burndown or knockdown
PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Plant-Eval Interval

37 DP-1 = 1 GLXMA 4-25-2016
51 DP-1 = 1 GLXMA 4-25-2016
72 DP-1 = 1 GLXMA 4-25-2016