

Soybean herbicide showcase programs

Trial ID: 19 SHOWCASE Location: Trial Year: 2019
Protocol ID: 19 SHOWCASE Investigator: Dr. Mark M. Loux
Project ID: Study Director: Bryan Reeb
Sponsor Contact:

General Trial Information

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

Trial Status: E established
ARM Trial Created On: May-6-2019

Trial Location

City: South Charleston Country: USA United States
State/Prov.: Ohio
Postal Code: 45368 Climate Zone: USWARM US Warm Continental
Latitude of LL Corner °: 39.85952 N
Longitude of LL Corner °: 83.67559 W
Altitude of LL Corner: 1112.00 FT

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Bryan Reeb

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C GLXMA Glycine max Soybean BBCH Scale: BSOY
Entry Date: May-21-2019
Variety: AG38X8
Attributes: Roundup Ready/xtend
Planting Date: May-16-2019 Planting Rate: 165000 S/A
Depth: 1.5 IN
Rows per Plot: 8 Planting Method: SEEDED seeded
Row Spacing: 15 IN Planting Equipment: PP plot planter
Seed Bed: CLODDY cloddy
Soil Temperature: 63 F Soil Moisture: GOOD good
Emergence Date: May-29-2019

Pest Description

Pest 1 Type: W Code: SETFA Setaria faberi
Common Name: Giant foxtail Entry Date: May-31-2019
Pest 2 Type: W Code: AMBTR Ambrosia trifida
Common Name: Giant ragweed Entry Date: May-31-2019
Pest 3 Type: W Code: CHEAL Chenopodium album
Common Name: common lambsquarters Entry Date: May-31-2019
Pest 4 Type: W Code: AMARE Amaranthus retroflexus
Common Name: Redroot pigweed Entry Date: May-31-2019
Pest 5 Type: W Code: ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass Entry Date: Jun-13-2019

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: 10 Tillage Type: CONTIL conventional-till
Replications: 4 Study Design: RACOB L Randomized Complete Block (RCB)

Previous

No. Crop Year
1. CORN 2018

Soil Description

Description Name: G-6
% Sand: 32 % OM: 2.2 Texture: SICL silty clay loam
% Silt: 53 pH: 5.9 Soil Name: Kokomo
% Clay: 15 CEC: 14.8 Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date	May-16-2019	May-29-2019	Jun-12-2019
Appl. Start Time	9:00 PM	9:00 AM	9:10 AM
Appl. Stop Time	10:00 PM	9:30 AM	9:15 AM
Interval to Prev. Appl.		13 DAYS	14 DAYS
Application Method	BROADC	SPRAY	spray
Application Timing	PRE	11	POST
Application Placement	BROFOL	BROFOL	BROFOL
Applied By	LAMB	REEB	DOBBELS
Appl. Entry Date	May-17-2019	May-31-2019	Jun-13-2019
Air Temperature Start, Stop	74 74 F	76 76 F	65 65 F
% Relative Humidity Start, Stop	43 43	84 84	50 50
Wind Velocity+Dir. Start	11 MPH SW	10 MPH WSW	7 MPH ENE
Wind Velocity+Dir. Stop	11 MPH SW	10 MPH WSW	7 MPH ENE
Wind Velocity+Dir. Max	11 MPH S	10 MPH WSW	7 MPH ENE
Wet Leaves (Y/N)	N no	N no	Y yes
Soil Temperature	63 F	70 F	61 F
Soil Moisture	DRY	MOIST	DRY
Soil Surface Condition	SMOOTH	SMOOTH	SMOOTH
% Cloud Cover	90	90	15
Next Moisture Occurred On	May-17-2019	May-30-2019	Jun-12-2019
Time to Next Moisture	3 HR	1 DAY	8 HR
Moisture 6 Hours after Appl.	1.32 IN	0 IN	0 IN
Moisture 1 Week after Appl.	2.54 IN	0.66 IN	3.27 IN

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Days after Emergence	-13		14
Stage Scale Used		VR	
Stage Majority, Percent		VC	V3 100
Height Average		2 IN	8 IN
Height Minimum, Maximum			8 10

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	SETFA W	SETFA W	SETFA W
Stage Majority, Percent		11 100	12 90
Stage Minimum, Percent			12 90
Stage Maximum, Percent			13 10
Height Average		0.5 IN	2 IN
Height Minimum, Maximum		0.5 1	1 3
Density Average		128 PLA/m2	128 PLA/m2
Density Min, Max		96 251	96 251
Pest 2 Code, Type, Scale	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent		12 90	14 80
Stage Minimum, Percent		12 90	14 80
Stage Maximum, Percent		14 10	16 60
Height Average		1.5 IN	3 IN
Height Minimum, Maximum		1 2	2 4
Density Average		8 PLA/m2	8 PLA/m2
Density Min, Max		5 12	5 12
Pest 3 Code, Type, Scale	CHEAL W	CHEAL W	CHEAL W
Stage Majority, Percent		12 100	
Height Average		1 IN	
Height Minimum, Maximum		1 1.5	
Density Average		3 PLA/m2	
Density Min, Max		2 6	
Pest 4 Code, Type, Scale	AMARE W	AMARE W	AMARE W
Stage Majority, Percent		12 90	
Stage Minimum, Percent		10 10	
Stage Maximum, Percent		12 90	
Height Average		0.25 IN	
Height Minimum, Maximum		0.25 0.5	
Density Average		4 PLA/m2	
Density Min, Max		2 8	
Pest 5 Code, Type, Scale	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent			12 100
Height Average			1.5 IN
Height Minimum, Maximum			1 2
Density Average			25 PLA/m2
Density Min, Max			13 65

Application Equipment

	A	B	C
Appl. Equipment	10' TTI	10' TTI	10' TTI
Equipment Type	SPRBAC	SPRBAC	SPRBAC
Operation Pressure	40 PSI	40 PSI	40 PSI
Nozzle Type	TTI	TTI	TTI
Nozzle Size	110015	110015	110015
Nozzle Spacing	18 IN	18 IN	18 IN
Boom Length	10 FT	10 FT	10 FT
Boom Height	20 IN	20 IN	20 IN
Ground Speed	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GPA	15 GPA	15 GPA
Mix Size	3 GAL	3 GAL	3 GAL
Propellant	CO2	CO2	CO2

Date **By** **Context** **Notes**
 May-6-2019 Dr. Mark M. Loux STATUS Automatically added by ARM: Trial Status updated to 'S' during trial creation.
 May-21-2019 Dr. Mark M. Loux STATUS Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

SE Definitions

1. Crop Type, Code C

	C GLXMA	C -	C -	C -	C -
Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	ECHCG	AMARE	CHEAL
Pest Scientific Name		Setaria faberi	Echinochloa cr>	Amaranthus ret>	Chenopodium al>
Pest Name		Giant foxtail	Common barnyar>	Redroot common lambsqu>	pigweed
Crop Type, Code	C GLXMA	C -	C -	C -	C -
Crop Name	Soybean				
Rating Date	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019
Rating Type	PHYLMA	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019
Days After First/Last Applic.	27 14	27 14	27 14	27 14	27 14
Trt-Eval Interval	AT POST	AT POST	AT POST	AT POST	AT POST
Plant-Eval Interval	27 DP-1	27 DP-1	27 DP-1	27 DP-1	27 DP-1
Days After Emergence	14 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	1*	2*	3*	4*	5*
1	Sonic	0.219 lb ai/a		5 oz/a		A	0 -	71 b	71 b	100 -	100 -
1	Durango DMA	1 lb ae/a		32 oz/a		C					
1	N-pak ams	2.5 % v/v		1.5 qt/a		C					
2	Sonic	0.219 lb ai/a		5 oz/a		A	0 -	73 b	73 b	100 -	100 -
2	Everprex	0.95 lb ai/a		1 pt/a		C					
2	Durango DMA	1 lb ae/a		32 oz/a		C					
2	N-pak ams	2.5 % v/v		1.5 qt/a		C					
3	Trivence @ 8 oz					A	0 -	55 c	55 c	100 -	100 -
3	Classic	0.0195 lb ai/a		1.25 oz/a		A					
3	Valor SX	0.064 lb ai/a		2.0 oz/a		A					
3	Metribuzin	0.223 lb ai/a		4.76 oz/a		A					
3	Durango DMA	1 lb ae/a		32 oz/a		C					
3	N-pak ams	2.5 % v/v		1.5 qt/a		C					
4	Zidua Pro	0.192 lb ai/a		6 oz/a		A	0 -	99 a	99 a	100 -	100 -
4	Engenia	0.5 lb ai/a		12.8 oz/a		A					
4	Roundup Power Max	1.13 lb ae/a		32 oz/a		A					
4	Destiny HC	0.5 % v/v		0.3 qt/a		A					
4	Engenia Pro	1.04 lb ai/a		16 oz/a		C					
4	Roundup Power Max	1.13 lb ae/a		32 oz/a		C					
4	Induce	0.25 % v/v		0.15 qt/a		C					
5	Engenia Pro	1.04 lb ai/a		16 oz/a		A	0 -	83 b	83 b	100 -	100 -
5	Sencor DF	0.234 lb ai/a		5 oz/a		A					
5	Roundup Power Max	1.13 lb ae/a		32 oz/a		A					
5	Induce	0.25 % v/v		0.15 qt/a		A					
5	Engenia Pro	1.04 lb ai/a		16 oz/a		C					
5	Roundup Power Max	1.13 lb ae/a		32 oz/a		C					
5	Induce	0.25 % v/v		0.15 qt/a		C					

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	ECHCG	AMARE	CHEAL
Pest Scientific Name	Setaria faberi	Echinochloa cr>	Amaranthus ret>	Chenopodium al>
Pest Name	Giant foxtail	Common barnyar>	Redroot pigweed	common lambsqu>
Crop Type, Code	C GLXMA	C -	C -	C -
Crop Name	Soybean			
Rating Date	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019
Rating Type	PHYLMA	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-12-2019	Jun-12-2019	Jun-12-2019	Jun-12-2019
Days After First/Last Applic.	27 14	27 14	27 14	27 14
Trt-Eval Interval	AT POST	AT POST	AT POST	AT POST
Plant-Eval Interval	27 DP-1	27 DP-1	27 DP-1	27 DP-1
Days After Emergence	14 DE-1	14 DE-1	14 DE-1	14 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	1*	2*	3*	4*	5*
6	BAS 872UAH	1.04 lb ai/a		16 oz/a		B	10 -	97 a	97 a	100 -	100 -
6	Roundup Power Max	1.13 lb ae/a		32 oz/a		B					
6	Induce	0.25 % v/v		0.15 qt/a		B					
7	BAS 872UAH	1.04 lb ai/a		16 oz/a		A	0 -	96 a	96 a	100 -	100 -
7	Roundup Power Max	1.13 lb ae/a		32 oz/a		A					
7	Induce	0.25 % v/v		0.15 qt/a		A					
7	Engenia Pro	1.04 lb ai/a		16 oz/a		C					
7	Roundup Power Max	1.13 lb ae/a		32 oz/a		C					
7	Induce	0.25 % v/v		0.15 qt/a		C					
8	Boundary	1.46 lb ai/a		1.8 pt/a		A	0 -	95 a	95 a	100 -	98
8	Roundup Power Max	1.13 lb ae/a		32 oz/a		C					
8	N-pak ams	2.5 % v/v		1.5 qt/a		C					
9	Roundup Power Max	1.13 lb ae/a		32 oz/a		C					
9	N-pak ams	2.5 % v/v		1.5 qt/a		C					
10	Authority XL	0.175 lb ai/a		4 oz/a		A	0 -	59 c	59 c	100 -	100 -
10	Roundup Power Max	1.13 lb ae/a		32 oz/a		C					
10	N-pak ams	2.5 % v/v		1.5 qt/a		C					
LSD P=.05							.	9.6	9.7	.	.
Standard Deviation							0.0	6.6	6.6	0.0	0.0
CV							0.0	8.16	8.21	0.0	0.0
Levene's F							0.00	1.454	1.513	0.00	0.00
Levene's Prob(F)							.	0.22	0.199	.	.
Skewness							2.5838*	-0.5765	-0.5765	.	.
Kurtosis							4.9482*	-0.7828	-0.7828	.	.
Replicate F							0.000	1.593	1.576	0.000	0.000
Replicate Prob(F)							1.0000	0.2172	0.2211	1.0000	1.0000
Treatment F							0.000	26.717	26.407	0.000	0.000
Treatment Prob(F)							1.0000	0.0001	0.0001	1.0000	1.0000

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	SETFA	ECHCG	AMBTR
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>
Pest Name	Giant ragweed	Giant foxtail	Common barnyar>	Giant ragweed
Crop Type, Code	C - C	GLXMA	C -	C -
Crop Name	Soybean			
Rating Date	Jun-12-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019
Rating Type	CONTRO	PHYLMA	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-12-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019
Days After First/Last Applic.	27 14	40 13	40 13	40 13
Trt-Eval Interval	AT POST	13 DA-C	13 DA-C	13 DA-C
Plant-Eval Interval	27 DP-1	40 DP-1	40 DP-1	40 DP-1
Days After Emergence	14 DE-1	27 DE-1	27 DE-1	27 DE-1
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate	Other Rate	Other Rate	Other Unit	Appl Code	6*	7*	8*	9*	10*
1 Sonic	0.219 lb ai/a	5 oz/a			A	53 bc	0 b	98 ab	98 a	77 ab
1 Durango DMA	1 lb ae/a	32 oz/a			C					
1 N-pak ams	2.5 % v/v	1.5 qt/a			C					
2 Sonic	0.219 lb ai/a	5 oz/a			A	55 bc	3 a	100 a	100 a	90 ab
2 Everprex	0.95 lb ai/a	1 pt/a			C					
2 Durango DMA	1 lb ae/a	32 oz/a			C					
2 N-pak ams	2.5 % v/v	1.5 qt/a			C					
3 Trivence @ 8 oz					A	60 b	0 b	98 ab	96 a	81 ab
3 Classic	0.0195 lb ai/a	1.25 oz/a			A					
3 Valor SX	0.064 lb ai/a	2.0 oz/a			A					
3 Metribuzin	0.223 lb ai/a	4.76 oz/a			A					
3 Durango DMA	1 lb ae/a	32 oz/a			C					
3 N-pak ams	2.5 % v/v	1.5 qt/a			C					
4 Zidua Pro	0.192 lb ai/a	6 oz/a			A	60 b	1 ab	100 a	100 a	100 a
4 Engenia	0.5 lb ai/a	12.8 oz/a			A					
4 Roundup Power Max	1.13 lb ae/a	32 oz/a			A					
4 Destiny HC	0.5 % v/v	0.3 qt/a			A					
4 Engenia Pro	1.04 lb ai/a	16 oz/a			C					
4 Roundup Power Max	1.13 lb ae/a	32 oz/a			C					
4 Induce	0.25 % v/v	0.15 qt/a			C					
5 Engenia Pro	1.04 lb ai/a	16 oz/a			A	55 bc	1 ab	100 a	100 a	99 a
5 Sencor DF	0.234 lb ai/a	5 oz/a			A					
5 Roundup Power Max	1.13 lb ae/a	32 oz/a			A					
5 Induce	0.25 % v/v	0.15 qt/a			A					
5 Engenia Pro	1.04 lb ai/a	16 oz/a			C					
5 Roundup Power Max	1.13 lb ae/a	32 oz/a			C					
5 Induce	0.25 % v/v	0.15 qt/a			C					

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	SETFA	ECHCG	AMBTR
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Echinochloa cr>	Ambrosia trifi>
Pest Name	Giant ragweed	Giant foxtail	Common barnyar>	Giant ragweed
Crop Type, Code	C - C	GLXMA	C -	C -
Crop Name		Soybean		
Rating Date	Jun-12-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019
Rating Type	CONTRO	PHYLMA	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-12-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019
Days After First/Last Applic.	27 14	40 13	40 13	40 13
Trt-Eval Interval	AT POST	13 DA-C	13 DA-C	13 DA-C
Plant-Eval Interval	27 DP-1	40 DP-1	40 DP-1	40 DP-1
Days After Emergence	14 DE-1	27 DE-1	27 DE-1	27 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	6*	7*	8*	9*	10*
6	BAS 872UAH	1.04 lb	ai/a	16 oz/a		B	81 a	3 a	93 b	90 a	73 ab
6	Roundup Power Max	1.13 lb	ae/a	32 oz/a		B					
6	Induce	0.25 %	v/v	0.15 qt/a		B					
7	BAS 872UAH	1.04 lb	ai/a	16 oz/a		A	48 bc	1 ab	100 a	100 a	95 a
7	Roundup Power Max	1.13 lb	ae/a	32 oz/a		A					
7	Induce	0.25 %	v/v	0.15 qt/a		A					
7	Engenia Pro	1.04 lb	ai/a	16 oz/a		C					
7	Roundup Power Max	1.13 lb	ae/a	32 oz/a		C					
7	Induce	0.25 %	v/v	0.15 qt/a		C					
8	Boundary	1.46 lb	ai/a	1.8 pt/a		A	48 bc	0 b	100 a	100 a	58 b
8	Roundup Power Max	1.13 lb	ae/a	32 oz/a		C					
8	N-pak ams	2.5 %	v/v	1.5 qt/a		C					
9	Roundup Power Max	1.13 lb	ae/a	32 oz/a		C		0 b	93 b	75 b	59 b
9	N-pak ams	2.5 %	v/v	1.5 qt/a		C					
10	Authority XL	0.175 lb	ai/a	4 oz/a		A	40 c	0 b	95 ab	96 a	56 b
10	Roundup Power Max	1.13 lb	ae/a	32 oz/a		C					
10	N-pak ams	2.5 %	v/v	1.5 qt/a		C					
LSD P=.05							11.2	1.6 - 1.8	3.6	6.2	20.4 - 26.6
Standard Deviation							7.7	0.4t	2.1	4.3	0.1t
CV							13.82	31.71t	2.16	4.48	4.83t
Levene's F							1.236	8.356	2.917	1.275	0.806
Levene's Prob(F)							0.317	0.001*	0.022*	0.291	0.614
Skewness							0.7193	0.7421	-1.2925*	-2.5355*	-0.6544
Kurtosis							-0.1542	-1.1871	0.5776	7.2263*	-1.3669
Replicate F							5.314	1.832	3.793	1.734	1.433
Replicate Prob(F)							0.0060	0.1652	0.0422	0.1837	0.2549
Treatment F							9.213	7.625	5.195	13.474	4.444
Treatment Prob(F)							0.0001	0.0001	0.0015	0.0001	0.0012

Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	CHEAL	AMARE	SETFA	ECHCG							
Pest Scientific Name	Chenopodium al>	Amaranthus ret>	Setaria faberi	Echinochloa cr>							
Pest Name	common lambsqu>	Redroot pigweed	Giant foxtail	Common barnyar>							
Crop Type, Code	C -	C - C	GLXMA	C -							
Crop Name		Soybean									
Rating Date	Jun-25-2019	Jun-25-2019	Jul-10-2019	Jul-10-2019							
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Data Entry Date	Jun-25-2019	Jun-25-2019	Jul-11-2019	Jul-11-2019							
Days After First/Last Applic.	40 13	40 13	55 28	55 28							
Trt-Eval Interval	13 DA-C	13 DA-C	28 DA-C	28 DA-C							
Plant-Eval Interval	40 DP-1	40 DP-1	55 DP-1	55 DP-1							
Days After Emergence	27 DE-1	27 DE-1	42 DE-1	42 DE-1							
Number of Decimals	0	0	0	0							
Trt Treatment	Rate	Other	Other	Appl	11*	12*	13*	14*	15*		
No. Name	Rate	Unit	Rate	Rate	Unit	Code					
1 Sonic	0.219 lb ai/a		5 oz/a			A	100 -	100 -	0 -	93 ab	84 bc
1 Durango DMA	1 lb ae/a		32 oz/a			C					
1 N-pak ams	2.5 % v/v		1.5 qt/a			C					
2 Sonic	0.219 lb ai/a		5 oz/a			A	100 -	100 -	0 -	100 a	99 a
2 Everprex	0.95 lb ai/a		1 pt/a			C					
2 Durango DMA	1 lb ae/a		32 oz/a			C					
2 N-pak ams	2.5 % v/v		1.5 qt/a			C					
3 Trivence @ 8 oz						A	100 -	100 -	0 -	85 b	68 cd
3 Classic	0.0195 lb ai/a		1.25 oz/a			A					
3 Valor SX	0.064 lb ai/a		2.0 oz/a			A					
3 Metribuzin	0.223 lb ai/a		4.76 oz/a			A					
3 Durango DMA	1 lb ae/a		32 oz/a			C					
3 N-pak ams	2.5 % v/v		1.5 qt/a			C					
4 Zidua Pro	0.192 lb ai/a		6 oz/a			A	100 -	100 -	0 -	100 a	100 a
4 Engenia	0.5 lb ai/a		12.8 oz/a			A					
4 Roundup Power Max	1.13 lb ae/a		32 oz/a			A					
4 Destiny HC	0.5 % v/v		0.3 qt/a			A					
4 Engenia Pro	1.04 lb ai/a		16 oz/a			C					
4 Roundup Power Max	1.13 lb ae/a		32 oz/a			C					
4 Induce	0.25 % v/v		0.15 qt/a			C					
5 Engenia Pro	1.04 lb ai/a		16 oz/a			A	100 -	100 -	0 -	100 a	100 a
5 Sencor DF	0.234 lb ai/a		5 oz/a			A					
5 Roundup Power Max	1.13 lb ae/a		32 oz/a			A					
5 Induce	0.25 % v/v		0.15 qt/a			A					
5 Engenia Pro	1.04 lb ai/a		16 oz/a			C					
5 Roundup Power Max	1.13 lb ae/a		32 oz/a			C					
5 Induce	0.25 % v/v		0.15 qt/a			C					

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Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	CHEAL	AMARE	SETFA	ECHCG						
Pest Scientific Name	Chenopodium al-	Amaranthus ret-	Setaria faberi	Echinochloa cr-						
Pest Name	common lambsqu-	Redroot pigweed	Giant foxtail	Common barnyar-						
Crop Type, Code	C -	C - C	GLXMA	C -						
Crop Name		Soybean								
Rating Date	Jun-25-2019	Jun-25-2019	Jul-10-2019	Jul-10-2019						
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO						
Rating Unit	%	%	%	%						
Number of Subsamples	1	1	1	1						
Data Entry Date	Jun-25-2019	Jun-25-2019	Jul-11-2019	Jul-11-2019						
Days After First/Last Applic.	40 13	40 13	55 28	55 28						
Trt-Eval Interval	13 DA-C	13 DA-C	28 DA-C	28 DA-C						
Plant-Eval Interval	40 DP-1	40 DP-1	55 DP-1	55 DP-1						
Days After Emergence	27 DE-1	27 DE-1	42 DE-1	42 DE-1						
Number of Decimals	0	0	0	0						
Trt Treatment No. Name	Rate	Other Rate	Other Rate	Unit	Appl Code	11*	12*	13*	14*	15*
6 BAS 872UAH	1.04 lb ai/a	16 oz/a			B	100 -	100 -	0 -	93 ab	84 bc
6 Roundup Power Max	1.13 lb ae/a	32 oz/a			B					
6 Induce	0.25 % v/v	0.15 qt/a			B					
7 BAS 872UAH	1.04 lb ai/a	16 oz/a			A	100 -	100 -	0 -	100 a	100 a
7 Roundup Power Max	1.13 lb ae/a	32 oz/a			A					
7 Induce	0.25 % v/v	0.15 qt/a			A					
7 Engenia Pro	1.04 lb ai/a	16 oz/a			C					
7 Roundup Power Max	1.13 lb ae/a	32 oz/a			C					
7 Induce	0.25 % v/v	0.15 qt/a			C					
8 Boundary	1.46 lb ai/a	1.8 pt/a			A	100 -	100 -	0 -	98 ab	95 ab
8 Roundup Power Max	1.13 lb ae/a	32 oz/a			C					
8 N-pak ams	2.5 % v/v	1.5 qt/a			C					
9 Roundup Power Max	1.13 lb ae/a	32 oz/a			C	70	86	0 -	60 c	44 d
9 N-pak ams	2.5 % v/v	1.5 qt/a			C					
10 Authority XL	0.175 lb ai/a	4 oz/a			A	100 -	100 -	0 -	93 ab	65 cd
10 Roundup Power Max	1.13 lb ae/a	32 oz/a			C					
10 N-pak ams	2.5 % v/v	1.5 qt/a			C					
LSD P=.05	.	.	.	.	.	.	.	.	4.3 - 19.0	4.8 - 21.8
Standard Deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3t	8.7t
CV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.52t	12.19t
Levene's F	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.219	1.383
Levene's Prob(F)	.	.	.	.	.	.	.	.	0.001*	0.239
Skewness	.	.	.	.	.	.	.	.	-0.8787*	-0.4829
Kurtosis	.	.	.	.	.	.	.	.	-0.5351	-0.9485
Replicate F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.116	0.497
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.1216	0.6872
Treatment F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.620	15.673
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0001	0.0001

Pest Type	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	AMARE
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>
Pest Name	Giant ragweed	common lambsqu>	Redroot pigweed
Crop Type, Code	C -	C -	C -
Crop Name			
Rating Date	Jul-10-2019	Jul-10-2019	Jul-10-2019
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Data Entry Date	Jul-11-2019	Jul-11-2019	Jul-11-2019
Days After First/Last Applic.	55 28	55 28	55 28
Trt-Eval Interval	28 DA-C	28 DA-C	28 DA-C
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1
Days After Emergence	42 DE-1	42 DE-1	42 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	16*	17*	18*
1	Sonic	0.219 lb ai/a		5 oz/a		A	70 abc	100 -	100 -
1	Durango DMA	1 lb ae/a		32 oz/a		C			
1	N-pak ams	2.5 % v/v		1.5 qt/a		C			
2	Sonic	0.219 lb ai/a		5 oz/a		A	80 ab	100 -	100 -
2	Everprex	0.95 lb ai/a		1 pt/a		C			
2	Durango DMA	1 lb ae/a		32 oz/a		C			
2	N-pak ams	2.5 % v/v		1.5 qt/a		C			
3	Trivence @ 8 oz					A	74 ab	100 -	100 -
3	Classic	0.0195 lb ai/a		1.25 oz/a		A			
3	Valor SX	0.064 lb ai/a		2.0 oz/a		A			
3	Metribuzin	0.223 lb ai/a		4.76 oz/a		A			
3	Durango DMA	1 lb ae/a		32 oz/a		C			
3	N-pak ams	2.5 % v/v		1.5 qt/a		C			
4	Zidua Pro	0.192 lb ai/a		6 oz/a		A	95 a	100 -	100 -
4	Engenia	0.5 lb ai/a		12.8 oz/a		A			
4	Roundup Power Max	1.13 lb ae/a		32 oz/a		A			
4	Destiny HC	0.5 % v/v		0.3 qt/a		A			
4	Engenia Pro	1.04 lb ai/a		16 oz/a		C			
4	Roundup Power Max	1.13 lb ae/a		32 oz/a		C			
4	Induce	0.25 % v/v		0.15 qt/a		C			
5	Engenia Pro	1.04 lb ai/a		16 oz/a		A	95 a	100 -	100 -
5	Sencor DF	0.234 lb ai/a		5 oz/a		A			
5	Roundup Power Max	1.13 lb ae/a		32 oz/a		A			
5	Induce	0.25 % v/v		0.15 qt/a		A			
5	Engenia Pro	1.04 lb ai/a		16 oz/a		C			
5	Roundup Power Max	1.13 lb ae/a		32 oz/a		C			
5	Induce	0.25 % v/v		0.15 qt/a		C			

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Pest Type	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	AMARE
Pest Scientific Name	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>
Pest Name	Giant ragweed	common lambsqu>	Redroot pigweed
Crop Type, Code	C -	C -	C -
Crop Name			
Rating Date	Jul-10-2019	Jul-10-2019	Jul-10-2019
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Number of Subsamples	1	1	1
Data Entry Date	Jul-11-2019	Jul-11-2019	Jul-11-2019
Days After First/Last Applic.	55 28	55 28	55 28
Trt-Eval Interval	28 DA-C	28 DA-C	28 DA-C
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1
Days After Emergence	42 DE-1	42 DE-1	42 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	16*	17*	18*
6	BAS 872UAH	1.04 lb ai/a		16 oz/a		B	48 bc	100 -	100 -
6	Roundup Power Max	1.13 lb ae/a		32 oz/a		B			
6	Induce	0.25 % v/v		0.15 qt/a		B			
7	BAS 872UAH	1.04 lb ai/a		16 oz/a		A	83 ab	100 -	100 -
7	Roundup Power Max	1.13 lb ae/a		32 oz/a		A			
7	Induce	0.25 % v/v		0.15 qt/a		A			
7	Engenia Pro	1.04 lb ai/a		16 oz/a		C			
7	Roundup Power Max	1.13 lb ae/a		32 oz/a		C			
7	Induce	0.25 % v/v		0.15 qt/a		C			
8	Boundary	1.46 lb ai/a		1.8 pt/a		A	56 bc	100 -	100 -
8	Roundup Power Max	1.13 lb ae/a		32 oz/a		C			
8	N-pak ams	2.5 % v/v		1.5 qt/a		C			
9	Roundup Power Max	1.13 lb ae/a		32 oz/a		C	45 bc	65	73
9	N-pak ams	2.5 % v/v		1.5 qt/a		C			
10	Authority XL	0.175 lb ai/a		4 oz/a		A	38 c	100 -	100 -
10	Roundup Power Max	1.13 lb ae/a		32 oz/a		C			
10	N-pak ams	2.5 % v/v		1.5 qt/a		C			
LSD P=.05							24.5	.	.
Standard Deviation							16.9	0.0	0.0
CV							24.76	0.0	0.0
Levene's F							0.901	0.00	0.00
Levene's Prob(F)							0.537	.	.
Skewness							-0.3522	.	.
Kurtosis							-1.4341	.	.
Replicate F							5.819	0.000	0.000
Replicate Prob(F)							0.0033	1.0000	1.0000
Treatment F							6.019	0.000	0.000
Treatment Prob(F)							0.0001	1.0000	1.0000

Soybean herbicide showcase programs

Trial ID: 19 SHOWCASE	Location:	Trial Year: 2019
Protocol ID: 19 SHOWCASE	Investigator: Dr. Mark M. Loux	
Project ID:	Study Director: Bryan Reeb	
	Sponsor Contact:	

Pest Type

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

Pest Code

SETFA, Setaria faberi, Giant foxtail = US
 ECHCG, Echinochloa crus-galli, Common barnyard grass = US
 AMARE, Amaranthus retroflexus, Redroot pigweed = US
 CHEAL, Chenopodium album, common lambsquarters = US
 AMBTR, Ambrosia trifida, Giant ragweed = US

Crop Type, Code

C, G-ByrC7 = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

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

Rating Unit

% = percent

Plant-Eval Interval

27 DP-1 = 1 GLXMA May-16-2019
 40 DP-1 = 1 GLXMA May-16-2019
 55 DP-1 = 1 GLXMA May-16-2019