

Purdue Weed Science

Trial ID: 20S-MGS-SOY-08	Soybean/Ultra Blazer/Broadleaf Weeds
Protocol ID:	Location: Purdue University Trial Year: 2020
Project ID:	Investigator (Creator): Dr. Bill Johnson
	Study Director:
	Sponsor Contact:

General Trial Information
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: E established **Trial Reliability:** 1 usable data
ARM Trial Created On: 12/8/2020
Initiation Date: 5/24/2020

Trial Location
City: Lafayette **Country:** USA United States
State/Prov.: Indiana

Latitude of LL Corner °: 40.2708707 N
Longitude of LL Corner °: -86.8813825 W

Conducted Under GLP: No
Conducted Under GEP: No

Role: INVEST investigator
Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA United States **E-mail:** wgj@purdue.edu
City: West Lafayette, IN **Postal Code:** 47907

Crop Description
Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: 12/8/2020 **Stage Scale:** BBCH
Variety: AG 29X9
Attributes: Glyphosate-R and Dicamba-R
Planting Rate: 387790 S/ha
Depth: 4.5 cm
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 76 cm **Planting Equipment:** PP plot planter
Soil Temperature: 89 F **Soil Moisture:** SLIWET slightly wet, moist
Emergence Date: 5/29/2020

Pest Description
Pest 1 Type: W **Code:** AMATA *Amaranthus x tamariscinus*
Common Name: Common waterhemp **Stage Scale:** BBCH

Pest 2 Type: W **Code:** SIDSP *Sida spinosa*
Common Name: Prickly sida **Entry Date:** 12/8/2020
Stage Scale: BBCH

Pest 3 Type: W **Code:** ABUTH *Abutilon theophrasti*
Common Name: velvetleaf **Entry Date:** 12/8/2020
Stage Scale: BBCH

Site and Design
Treated Plot Width: 6.67 FT **Site Type:** FIELD field
Treated Plot Length: 25 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 166.75 FT² **Treatments:** 7 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description
Description Name: Starks-Fincastle complex
% Sand: 21 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 54 **pH:** 6.8
% Clay: 25 **CEC:** 8.3

No.	Date	Moisture Total	Unit
1.	5/2/2020	0.025	CM
2.	5/3/2020	0.585	CM
3.	5/5/2020	0.481	CM
4.	5/6/2020	0.025	CM
5.	5/10/2020	0.101	CM
6.	5/14/2020	0.405	CM
7.	5/15/2020	0.279	CM
8.	5/17/2020	1.497	CM
9.	5/18/2020	0.914	CM
10.	5/19/2020	0.684	CM
11.	5/23/2020	0.178	CM
12.	5/27/2020	0.025	CM
13.	5/28/2020	0.331	CM
14.	6/4/2020	0.33	CM
15.	6/9/2020	0.787	CM
16.	6/20/2020	0.025	CM
17.	6/21/2020	0.075	CM
18.	6/22/2020	0.711	CM
19.	6/23/2020	0.203	CM
20.	6/27/2020	2.769	CM
21.	6/28/2020	0.229	CM
22.	6/29/2020	0.076	CM
23.	6/30/2020	1.829	CM
24.	7/10/2020	0.05	CM
25.	7/11/2020	0.914	CM
26.	7/12/2020	0.66	CM
27.	7/15/2020	0.127	CM
28.	7/16/2020	0.456	CM
29.	7/19/2020	0.051	CM
30.	7/21/2020	1.423	CM
31.	7/22/2020	0.329	CM
32.	7/23/2020	0.178	CM
33.	7/27/2020	1.295	CM
34.	7/30/2020	1.599	CM

Application Description

	A
Application Date	7/1/2020
Appl. Start Time	3:00 PM
Appl. Stop Time	3:30 PM
Application Method	SPRAY
Application Timing	A
Application Placement	BROFOL
Applied By	C. BLAND
Appl. Entry Date	12/8/2020
Air Temperature Start, Stop	90, 90 F
% Relative Humidity Start, Stop	54, 54
Wind Velocity+Dir. Start	1.1 MPH, ESE
Wind Velocity+Dir. Max	1.8 MPH, ESE
Wet Leaves (Y/N)	N, no
Soil Temperature	92 F
Soil Moisture	SLIWET
% Cloud Cover	40

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	GLXMA, BSOY
Days after Emergence	33
Stage Majority, Percent	13, -
Stage Minimum, Percent	13, -
Stage Maximum, Percent	14, -
Height Average	3.5 IN
Height Minimum, Maximum	3, 4

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	AMATA, W, BBCH
Stage Majority, Percent	16, -
Stage Minimum, Percent	12, -
Stage Maximum, Percent	18, -
Height Average	3 IN
Height Minimum, Maximum	0.25, 6
Density Average	15 FT2
Density Minimum, Maximum	10, 25
Pest 2 Code, Type, Scale	SIDSP, W, BBCH
Stage Majority, Percent	18, -
Stage Minimum, Percent	16, -
Stage Maximum, Percent	18, -
Height Average	4 IN
Height Minimum, Maximum	2, 6
Density Average	7 FT2
Density Minimum, Maximum	5, 10
Pest 3 Code, Type, Scale	ABUTH, W, BBCH
Stage Majority, Percent	18, -
Stage Minimum, Percent	14, -
Stage Maximum, Percent	18, -
Height Average	8 IN
Height Minimum, Maximum	6, 8
Density Average	0.5 FT2
Density Minimum, Maximum	0, 0.5

Application Equipment

	A
Appl. Equipment	CO2 BACKPACK
Equipment Type	BACSPR
Operation Pressure	45 PSI
Nozzle Model	TT110015
Nozzle Type	TEEJTU
Nozzle Spacing	20.0 IN
Nozzles/Row	4.0
Boom Length	6.67 FT
Boom Height	21.0 IN
Ground Speed	3 MPH
Carrier	WATER
Application Amount	20 GAL/AC
Mix Overage	0 mL
Mix Size	1234.0 mL
Propellant	COMCO2

Treatment Appl. Comments

Trt No Treatment Application Comment
2 Plot 703 was sprayed short

Notes			
Context	Date	By	Notes
STATUS	12/8/2020	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
GENTRI	12/8/2020	Dr. Bill Johnson	Applied a blanket application of Moccassin II Plus at 0.5 pt/a at planting

Instructions:

Objective: Assess the weed control efficacy of Ultra Blazer tank mixtures in soybeans when applied EPOST

Application A: EPOST, weeds 2-4", soybeans approx. V3

Weed control ratings at 3, 7, 14, 21 DAT

Crop injury ratings at 3, 7, 14, 21 DAT

Picture of plots prior to treatment and 3 & 7 DAT

Purdue Weed Science

Soybean/Ultra Blazer/Broadleaf Weeds

Location: Purdue University Trial Year: 2020

Investigator (Creator): Dr. Bill Johnson

Study Director:
Sponsor Contact:

Trial ID: 20S-MGS-SOY-08
Protocol ID:
Project ID:

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5
1	Untreated				0.0	0.0	0.0	0.0	0.0
2	Ultra Blazer Roundup PowerMAX Activator 90 Ammonium Sulfate	170 g AI/A 510 g AE/A 0.25 % V/V 1.01999998093 % W/V	A A A A	A	37.5 -	90.0 -	95.0 -	76.3 -	47.5 -
3	Ultra Blazer Roundup PowerMAX COC Ammonium Sulfate	170 g AI/A 510 g AE/A 1.25 % V/V 1.01999998093 % W/V	A A A A	A	40.0 -	90.0 -	95.0 -	78.8 -	53.8 -
4	Ultra Blazer Roundup PowerMAX NIS Ammonium Sulfate Moccasin II Plus	170 g AI/A 510 g AE/A 0.25 % V/V 1.01999998093 % W/V 433 g AI/A	A A A A A	A	41.3 -	90.0 -	95.0 -	77.5 -	52.5 -
5	Ultra Blazer Roundup PowerMAX COC Ammonium Sulfate Moccasin II Plus	170 g AI/A 510 g AE/A 1.25 % V/V 1.01999998093 % W/V 433 g AI/A	A A A A A	A	40.0 -	90.0 -	95.0 -	73.8 -	57.5 -
6	Ultra Blazer Roundup PowerMAX NIS Ammonium Sulfate Shadow 3EC	170 g AI/A 510 g AE/A 0.25 % V/V 1.01999998093 % W/V 42.5 g AI/A	A A A A A	A	37.5 -	90.0 -	95.0 -	75.0 -	48.8 -

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 2,3,6,7,10,11,14,15 because error mean square = 0.
 ^Calculated from residual.

Pest Type		W, Weed	W, Weed	W, Weed				
Pest Code		AMATA	ABUTH	SIDSP				
Pest Scientific Name		Amaranthus x ta>	Abutilon theoph>	Sida spinosa				
Pest Name		Common waterhemp	velvetleaf	Prickly sida				
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA			
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY			
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max			
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean			
Rating Date	7/3/2020	7/3/2020	7/3/2020	7/3/2020	7/8/2020			
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, P	PLANT, C			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1			
Assessed By	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield			
Data Entry Date	12/8/2020	12/8/2020	12/8/2020	12/8/2020	12/8/2020			
Rating Timing	2 DAA	2 DAA	2 DAA	2 DAA	7 DAA			
Days After First/Last Applic.	2, 2	2, 2	2, 2	2, 2	7, 7			
Trt-Eval Interval	2 DA-A	2 DA-A	2 DA-A	2 DA-A	7 DA-A			
Plant-Eval Interval	40 DP-1	40 DP-1	40 DP-1	40 DP-1	45 DP-1			
Days After Emergence	35 DE-1	35 DE-1	35 DE-1	35 DE-1	40 DE-1			
Trt Treatment		1	2	3	4	5		
No. Name	Rate	Unit	Code					
7 Ultra Blazer	170 g AI/A	A		37.5 -	90.0 -	95.0 -	77.5 -	51.3 -
Roundup PowerMAX	510 g AE/A	A						
COC	1.25 % V/V	A						
Ammonium Sulfate	1.01999998093 % W/V	A						
Shadow 3EC	42.5 g AI/A	A						
LSD P=.05	5.25						7.14	8.87
Standard Deviation	3.49		0.00		0.00		4.74	5.89
CV	8.95		0.0		0.0		6.19	11.35
Grand Mean	38.96		90.00		95.00		76.46	51.88
Levene's F^	0.374		.		.		0.421	1.446
Levene's Prob(F)	0.86		.		.		0.828	0.256
Rank X2
P(Rank X2)
Skewness^	-0.8968		.		.		-0.4504	0.8002
Kurtosis^	0.6652		.		.		-0.5534	1.7804
Replicate F	1.686		0.000		0.000		2.523	0.591
Replicate Prob(F)	0.2127		1.0000		1.0000		0.0970	0.6303
Treatment F	0.909		0.000		0.000		0.604	1.497
Treatment Prob(F)	0.5012		1.0000		1.0000		0.6982	0.2490

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^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed		W, Weed	
Pest Code	AMATA	ABUTH	SIDSP		AMATA	
Pest Scientific Name	Amaranthus x ta>	Abutilon theoph>	Sida spinosa		Amaranthus x ta>	
Pest Name	Common waterhemp	velvetleaf	Prickly sida		Common waterhemp	
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	
Rating Date	7/8/2020	7/8/2020	7/8/2020	7/15/2020	7/15/2020	
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P	
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	
Number of Subsamples	1	1	1	1	1	
Assessed By	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield	
Data Entry Date	12/8/2020	12/8/2020	12/8/2020	12/8/2020	12/8/2020	
Rating Timing	7 DAA	7 DAA	7 DAA	14 DAA	14 DAA	
Days After First/Last Applic.	7, 7	7, 7	7, 7	14, 14	14, 14	
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A	
Plant-Eval Interval	45 DP-1	45 DP-1	45 DP-1	52 DP-1	52 DP-1	
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	47 DE-1	47 DE-1	
Trt Treatment						
No. Name	Rate	Rate	Rate	Rate	Rate	
1 Untreated		6	7	8	9	10
		0.0	0.0	0.0	0.0	0.0
2 Ultra Blazer	170 g AI/A A	100.0 -	100.0 -	96.5 -	45.0 -	100.0 -
Roundup PowerMAX	510 g AE/A A					
Activator 90	0.25 % V/V A					
Ammonium Sulfate	1.01999998093 % W/V A					
3 Ultra Blazer	170 g AI/A A	100.0 -	100.0 -	96.5 -	48.8 -	100.0 -
Roundup PowerMAX	510 g AE/A A					
COC	1.25 % V/V A					
Ammonium Sulfate	1.01999998093 % W/V A					
4 Ultra Blazer	170 g AI/A A	100.0 -	100.0 -	95.0 -	50.0 -	100.0 -
Roundup PowerMAX	510 g AE/A A					
NIS	0.25 % V/V A					
Ammonium Sulfate	1.01999998093 % W/V A					
Moccasin II Plus	433 g AI/A A					
5 Ultra Blazer	170 g AI/A A	100.0 -	100.0 -	95.0 -	51.3 -	100.0 -
Roundup PowerMAX	510 g AE/A A					
COC	1.25 % V/V A					
Ammonium Sulfate	1.01999998093 % W/V A					
Moccasin II Plus	433 g AI/A A					
6 Ultra Blazer	170 g AI/A A	100.0 -	100.0 -	95.5 -	38.8 -	100.0 -
Roundup PowerMAX	510 g AE/A A					
NIS	0.25 % V/V A					
Ammonium Sulfate	1.01999998093 % W/V A					
Shadow 3EC	42.5 g AI/A A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Untreated treatment(s) 1 excluded from analysis.
Could not calculate LSD (% mean diff) for columns 2,3,6,7,10,11,14,15 because error mean square = 0.
^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMATA	ABUTH	SIDSP	AMATA	AMATA
Pest Scientific Name	Amaranthus x ta>	Abutilon theoph>	Sida spinosa	Amaranthus x ta>	Amaranthus x ta>
Pest Name	Common waterhemp	velvetleaf	Prickly sida	Common waterhemp	Common waterhemp
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date	7/8/2020	7/8/2020	7/8/2020	7/15/2020	7/15/2020
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Assessed By	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield
Data Entry Date	12/8/2020	12/8/2020	12/8/2020	12/8/2020	12/8/2020
Rating Timing	7 DAA	7 DAA	7 DAA	14 DAA	14 DAA
Days After First/Last Applic.	7, 7	7, 7	7, 7	14, 14	14, 14
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	45 DP-1	45 DP-1	45 DP-1	52 DP-1	52 DP-1
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	47 DE-1	47 DE-1
Trt Treatment	6	7	8	9	10
No. Name	Rate	Rate	Rate	Rate	Rate
7 Ultra Blazer	170 g AI/A A	100.0 -	100.0 -	96.5 -	46.3 -
Roundup PowerMAX	510 g AE/A A				100.0 -
COC	1.25 % V/V A				
Ammonium Sulfate	1.01999998093 % W/V A				
Shadow 3EC	42.5 g AI/A A				
LSD P=.05	.	.	1.71	8.41	.
Standard Deviation	0.00	0.00	1.14	5.58	0.00
CV	0.0	0.0	1.18	11.95	0.0
Grand Mean	100.00	100.00	95.83	46.67	100.00
Levene's F^	.	.	0.68	0.222	.
Levene's Prob(F)	.	.	0.644	0.948	.
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	.	.	-0.3693	-0.4865	.
Kurtosis^	.	.	0.0501	-0.3746	.
Replicate F	0.000	0.000	4.310	1.696	0.000
Replicate Prob(F)	1.0000	1.0000	0.0222	0.2105	1.0000
Treatment F	0.000	0.000	1.759	2.625	0.000
Treatment Prob(F)	1.0000	1.0000	0.1821	0.0674	1.0000

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Could not calculate LSD (% mean diff) for columns 2,3,6,7,10,11,14,15 because error mean square = 0.
^Calculated from residual.

Pest Type		W, Weed	W, Weed		W, Weed	W, Weed
Pest Code		ABUTH	SIDSP		AMATA	ABUTH
Pest Scientific Name		Abutilon theoph>	Sida spinosa		Amaranthus x ta>	Abutilon theoph>
Pest Name		velvetleaf	Prickly sida		Common waterhemp	velvetleaf
Crop Type, Code		C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale		BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date		7/15/2020	7/15/2020	7/22/2020	7/22/2020	7/22/2020
Part Rated		PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type		CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max		% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples		1	1	1	1	1
Assessed By		B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield
Data Entry Date		12/8/2020	12/8/2020	12/8/2020	12/8/2020	12/8/2020
Rating Timing		14 DAA	14 DAA	21 DAA	21 DAA	21 DAA
Days After First/Last Applic.		14, 14	14, 14	21, 21	21, 21	21, 21
Trt-Eval Interval		14 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval		52 DP-1	52 DP-1	59 DP-1	59 DP-1	59 DP-1
Days After Emergence		47 DE-1	47 DE-1	54 DE-1	54 DE-1	54 DE-1
Trt Treatment		11	12	13	14	15
No. Name	Rate	Unit	Appl Code			
1 Untreated				0.0	0.0	0.0
2 Ultra Blazer	170 g AI/A	A		100.0 -	93.5 -	32.5 -
Roundup PowerMAX	510 g AE/A	A				
Activator 90	0.25 % V/V	A				
Ammonium Sulfate	1.01999998093 % W/V	A				
3 Ultra Blazer	170 g AI/A	A		100.0 -	91.8 -	40.0 -
Roundup PowerMAX	510 g AE/A	A				
COC	1.25 % V/V	A				
Ammonium Sulfate	1.01999998093 % W/V	A				
4 Ultra Blazer	170 g AI/A	A		100.0 -	91.0 -	40.0 -
Roundup PowerMAX	510 g AE/A	A				
NIS	0.25 % V/V	A				
Ammonium Sulfate	1.01999998093 % W/V	A				
Moccasin II Plus	433 g AI/A	A				
5 Ultra Blazer	170 g AI/A	A		100.0 -	88.3 -	43.8 -
Roundup PowerMAX	510 g AE/A	A				
COC	1.25 % V/V	A				
Ammonium Sulfate	1.01999998093 % W/V	A				
Moccasin II Plus	433 g AI/A	A				
6 Ultra Blazer	170 g AI/A	A		100.0 -	90.5 -	35.0 -
Roundup PowerMAX	510 g AE/A	A				
NIS	0.25 % V/V	A				
Ammonium Sulfate	1.01999998093 % W/V	A				
Shadow 3EC	42.5 g AI/A	A				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
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Untreated treatment(s) 1 excluded from analysis.
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^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ABUTH	SIDSP	AMATA	ABUTH
Pest Scientific Name	Abutilon theoph>	Sida spinosa	Amaranthus x ta>	Abutilon theoph>
Pest Name	velvetleaf	Prickly sida	Common waterhemp	velvetleaf
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	7/15/2020	7/15/2020	7/22/2020	7/22/2020
Part Rated	PLANT, P	PLANT, P	PLANT, C	PLANT, P
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
Assessed By	B. Mansfield	B. Mansfield	B. Mansfield	B. Mansfield
Data Entry Date	12/8/2020	12/8/2020	12/8/2020	12/8/2020
Rating Timing	14 DAA	14 DAA	21 DAA	21 DAA
Days After First/Last Applic.	14, 14	14, 14	21, 21	21, 21
Trt-Eval Interval	14 DA-A	14 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	52 DP-1	52 DP-1	59 DP-1	59 DP-1
Days After Emergence	47 DE-1	47 DE-1	54 DE-1	54 DE-1
Trt Treatment	11	12	13	14
No. Name	Rate	Rate	Rate	Rate
7 Ultra Blazer	170 g AI/A A	91.5 -	36.3 -	100.0 -
Roundup PowerMAX	510 g AE/A A			
COC	1.25 % V/V A			
Ammonium Sulfate	1.01999998093 % W/V A			
Shadow 3EC	42.5 g AI/A A			
LSD P=.05	.	5.85	7.86	.
Standard Deviation	0.00	3.88	5.22	0.00
CV	0.0	4.26	13.76	0.0
Grand Mean	100.00	91.08	37.92	100.00
Levene's F^	.	0.136	1.562	.
Levene's Prob(F)	.	0.982	0.221	.
Rank X2	.	.	.	.
P(Rank X2)	.	.	.	.
Skewness^	.	-0.3422	-0.1189	.
Kurtosis^	.	-0.4644	-0.0426	.
Replicate F	0.000	5.691	2.500	0.000
Replicate Prob(F)	1.0000	0.0083	0.0991	1.0000
Treatment F	0.000	0.789	2.449	0.000
Treatment Prob(F)	1.0000	0.5738	0.0820	1.0000

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 2,3,6,7,10,11,14,15 because error mean square = 0.
^Calculated from residual.

Pest Type	W, Weed				
Pest Code	SIDSP				
Pest Scientific Name	Sida spinosa				
Pest Name	Prickly sida				
Crop Type, Code	C, GLXMA				
BBCH Scale	BSOY				
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Rating Date	7/22/2020				
Part Rated	PLANT, P				
Rating Type	CONTRO				
Rating Unit/Min/Max	%, 0, 100				
Number of Subsamples	1				
Assessed By	B. Mansfield				
Data Entry Date	12/8/2020				
Rating Timing	21 DAA				
Days After First/Last Applic.	21, 21				
Trt-Eval Interval	21 DA-A				
Plant-Eval Interval	59 DP-1				
Days After Emergence	54 DE-1				
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16
1	Untreated				0.0
2	Ultra Blazer	170 g	AI/A A		98.5 -
	Roundup PowerMAX	510 g	AE/A A		
	Activator 90	0.25 %	V/V A		
	Ammonium Sulfate	1.01999998093 %	W/V A		
3	Ultra Blazer	170 g	AI/A A		99.3 -
	Roundup PowerMAX	510 g	AE/A A		
	COC	1.25 %	V/V A		
	Ammonium Sulfate	1.01999998093 %	W/V A		
4	Ultra Blazer	170 g	AI/A A		97.3 -
	Roundup PowerMAX	510 g	AE/A A		
	NIS	0.25 %	V/V A		
	Ammonium Sulfate	1.01999998093 %	W/V A		
	Moccasin II Plus	433 g	AI/A A		
5	Ultra Blazer	170 g	AI/A A		96.8 -
	Roundup PowerMAX	510 g	AE/A A		
	COC	1.25 %	V/V A		
	Ammonium Sulfate	1.01999998093 %	W/V A		
	Moccasin II Plus	433 g	AI/A A		
6	Ultra Blazer	170 g	AI/A A		98.0 -
	Roundup PowerMAX	510 g	AE/A A		
	NIS	0.25 %	V/V A		
	Ammonium Sulfate	1.01999998093 %	W/V A		
	Shadow 3EC	42.5 g	AI/A A		

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Untreated treatment(s) 1 excluded from analysis.
Could not calculate LSD (% mean diff) for columns 2,3,6,7,10,11,14,15 because error mean square = 0.
^Calculated from residual.

Pest Type				W, Weed	
Pest Code				SIDSP	
Pest Scientific Name				Sida spinosa	
Pest Name				Prickly sida	
Crop Type, Code				C, GLXMA	
BBCH Scale				BSOY	
Crop Scientific Name				Glycine max	
Crop Name				Soybean	
Rating Date				7/22/2020	
Part Rated				PLANT, P	
Rating Type				CONTRO	
Rating Unit/Min/Max				%, 0, 100	
Number of Subsamples				1	
Assessed By				B. Mansfield	
Data Entry Date				12/8/2020	
Rating Timing				21 DAA	
Days After First/Last Applic.				21, 21	
Trit-Eval Interval				21 DA-A	
Plant-Eval Interval				59 DP-1	
Days After Emergence				54 DE-1	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16
7	Ultra Blazer		170 g AI/A	A	98.8 -
	Roundup PowerMAX		510 g AE/A	A	
	COC		1.25 % V/V	A	
	Ammonium Sulfate	1.01999998093	% W/V	A	
	Shadow 3EC		42.5 g AI/A	A	
LSD P=.05				2.16	
Standard Deviation				1.43	
CV				1.46	
Grand Mean				98.08	
Levene's F^				0.495	
Levene's Prob(F)				0.776	
Rank X2				.	
P(Rank X2)				.	
Skewness^				-0.4431	
Kurtosis^				-0.0046	
Replicate F				8.297	
Replicate Prob(F)				0.0017	
Treatment F				1.735	
Treatment Prob(F)				0.1873	

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 2,3,6,7,10,11,14,15 because error mean square = 0.
^Calculated from residual.

Purdue Weed Science

Soybean/Ultra Blazer/Broadleaf Weeds

Location: Purdue University Trial Year: 2020

Investigator (Creator): Dr. Bill Johnson

Trial ID: 20S-MGS-SOY-08

Protocol ID:

Project ID:

Study Director:

Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMATA, Amaranthus x tamariscinus, Common waterhemp = US

ABUTH, Abutilon theophrasti, velvetleaf = US

SIDSP, Sida spinosa, Prickly sida = US

Crop Type, Code

C = EPP0 species (Bayer) codes

GLXMA, BSOY, Glycine max, Soybean = US

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

40 DP-1 = 1 GLXMA 5/24/2020

45 DP-1 = 1 GLXMA 5/24/2020

52 DP-1 = 1 GLXMA 5/24/2020

59 DP-1 = 1 GLXMA 5/24/2020