

Purdue University Weed Science

2014 SOYBEAN SHOWCASE PROGRAMS

Trial ID: 14S-SEP-NTS-10 Location: SEPAC Trial Year: 2014
 Protocol ID: 14S-SEP-NTS-10 Investigator: Dr. Bill Johnson
 Project ID: Study Director: Joe Ikley
 Sponsor Contact: DOW

General Trial Information

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

Discipline: H herbicide
Trial Status: F one-year/final
Initiation Date: 5/8/2014
Completion Date: 7/17/2014

Trial Location

City: Butlerville **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47223

Contacts

Study Director: Joe Ikley **Title:** Research Associate
Organization: Purdue University
Address: 915 West State Street **Phone No.:** 765-494-0891
City+State/Prov: West Lafayette **Mobile No.:** 410-596-9091
Postal Code: 47907 **E-mail:** jikley@purdue.edu

Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address: 915 West State Street **Phone No.:** 765-494-4656
City+State/Prov: West Lafayette **Mobile No.:** 765-404-9801
Postal Code: 47907 **E-mail:** wgj@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 2933
Description: RR

Planting Rate, Unit: 140000 S/A **Planting Date:** 5/27/2014
Depth, Unit: 1.5 IN **Planting Method:** DIRDRI direct drilled
Row Spacing, Unit: 30 IN **Planting Equipment:** PP Plot Planter
Soil Temperature, Unit: 80 F **Emergence Date:** 5/31/2014
Soil Moisture: WET wet

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Pest Description

- Pest 1 Type:** W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed
- Pest 2 Type:** W **Code:** ALLVI *Allium vineale*
Common Name: Wild garlic
- Pest 3 Type:** W **Code:** THLSS *Thlaspi* sp.
Common Name: Pennycress
- Pest 4 Type:** W **Code:** RANPF *Ranunculus parviflorus*
Common Name: Small-flowered buttercup
- Pest 5 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 6 Type:** W **Code:** PANDI *Panicum dichotomiflorum*
Common Name: Fall panicum
- Pest 7 Type:** W **Code:** SETSS *Setaria* sp.
Common Name: Foxtail millet
- Pest 8 Type:** W **Code:** AMBEL *Ambrosia artemisiifolia*
Common Name: Common ragweed
- Pest 9 Type:** W **Code:** XANST *Xanthium strumarium*
Common Name: Heart-leaf cocklebur
- Pest10 Type:** W **Code:** DIGSA *Digitaria sanguinalis*
Common Name: large crabgrass
- Pest11 Type:** W **Code:** IPOSS *Ipomoea* sp.
Common Name: Morning glory

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 10
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

Description Name: SEPAC-Field U4
% Sand: 20 **% OM:** 1.8 **Texture:** SIL silt loam
% Silt: 65 **pH:** 5.6 **Soil Name:** Avonburg
% Clay: 15 **CEC:** 6.7 **Fert. Level:** G good
Soil Drainage: P poor

Application Description

	A	B	C
Application Date:	5/8/2014	5/27/2014	6/18/2014
Appl. Start Time:	7:30	14:30	10:30
Appl. Stop Time:	8:30 AM	4:00 PM	11:00 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	7 DPP	PRE	4-6' WEEDS
Application Placement:	BROADC	BROADC	BROADC
Applied By:	Spaunhorst	Campbell	Campbell
Air Temperature, Unit:	67 F	87 F	90 F
% Relative Humidity:	70	40	55
Wind Velocity, Unit:	3 MPH	3 MPH	3 MPH
Wind Direction:	S	W	SW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	67 F	84 F	76 F
Soil Moisture:	DRY	WET	SLIWET
% Cloud Cover:	30	70	30

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Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:			BBCH
Stage Majority, Percent:			13
Stage Minimum, Percent:			12
Stage Maximum, Percent:			13
Height, Unit:			4 IN
Height Minimum, Maximum:			2 6

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	ERICA W	ERICA W	ERICA W
Stage Majority, Percent:	19	19	
Height, Unit:	4.5 IN	3 IN	7 IN
Height Minimum, Maximum:	3 6	1 5	4 6
Density, Unit:	10 YD2	20 YD2	30 YD2
Pest 2 Code, Type, Scale:	ALLVI W	ALLVI W	ALLVI W
Stage Majority, Percent:	16		
Stage Minimum, Percent:	13		
Stage Maximum, Percent:	19		
Height, Unit:	16 IN		
Height Minimum, Maximum:	10 22		
Density, Unit:	35 YD2		
Pest 3 Code, Type, Scale:	THLSS W	THLSS W	THLSS W
Stage Majority, Percent:	69		
Height, Unit:	22 IN		
Height Minimum, Maximum:	16 28		
Density, Unit:	10 YD2		
Pest 4 Code, Type, Scale:	RANPF W	RANPF W	RANPF W
Stage Majority, Percent:	69		
Height, Unit:	11 IN		
Height Minimum, Maximum:	10 12		
Density, Unit:	10 YD2		
Pest 5 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	14		
Stage Minimum, Percent:	12		
Stage Maximum, Percent:	16		
Height, Unit:	4 IN		4.5 IN
Height Minimum, Maximum:	2 6		3 6
Density, Unit:	30 YD2		55 YD2
Pest 6 Code, Type, Scale:	PANDI W	PANDI W	PANDI W
Stage Majority, Percent:		14	
Stage Minimum, Percent:		13	
Stage Maximum, Percent:		15	
Height, Unit:		4.5 IN	2 IN
Height Minimum, Maximum:		3 7	0 4
Density, Unit:		30 YD2	75 YD2

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Pest 7 Code, Type, Scale:	SETSS W	SETSS W	SETSS W
Stage Majority, Percent:		14	
Stage Minimum, Percent:		12	
Stage Maximum, Percent:		16	
Height, Unit:		5 IN	
Height Minimum, Maximum:		2 8	
Density, Unit:		60 YD2	
Pest 8 Code, Type, Scale:	AMBEL W	AMBEL W	AMBEL W
Stage Majority, Percent:		17	
Stage Minimum, Percent:		15	
Stage Maximum, Percent:		19	
Height, Unit:		7.5 IN	
Height Minimum, Maximum:		5 10	
Density, Unit:		30 YD2	
Pest 9 Code, Type, Scale:	XANST W	XANST W	XANST W
Height, Unit:			3.5 IN
Height Minimum, Maximum:			2 5
Density, Unit:			30 YD2
Pest10 Code, Type, Scale:	DIGSA W	DIGSA W	DIGSA W
Height, Unit:			1.5 IN
Height Minimum, Maximum:			0 3
Density, Unit:			135 YD2
Pest11 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:			1 IN
Height Minimum, Maximum:			0 2
Density, Unit:			45 YD2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 Backpack	CO2 Backpack	CO2 Backpack
Equipment Type:	SPRBAC	SPRBAC	SPRBAC
Operation Pressure, Unit:	18 PSI	18 PSI	18 PSI
Nozzle Type:	Flat Fan	Flat Fan	Flat Fan
Nozzle Size:	XR11002	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	H2O	H2O	H2O
Water Hardness (ppm CaCO3):	150	150	150
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 Liters	1.8 Liters	1.8 Liters
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	N no	N no	N no

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Trial Comments

1.125 lbs ae glyphosate added to all application B treatments

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 Project ID: Study Director: Joe Ikley
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Reps: 4 Plots: 10 by 30 feet
 Spray vol: 15 gal/ac Mix size: 1.8 liters (min 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	SONIC	70 %		WG	3 oz/a	B		PRE	2.696 g/mx	101	402	801	1001
	DURANGO DMA	4 LBAE/GAL		SL	24 fl oz/a	C		4-6" WEEDS	22.5 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx				
2	SONIC	70 %		WG	4.5 oz/a	B		PRE	4.044 g/mx	102	404	701	902
	DURANGO DMA	4 LBAE/GAL		SL	24 fl oz/a	C		4-6" WEEDS	22.5 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx				
3	SONIC	70 %		WG	6 oz/a	B		PRE	5.392 g/mx	103	501	704	901
	DURANGO DMA	4 LBAE/GAL		SL	24 fl oz/a	C		4-6" WEEDS	22.5 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx				
4	SONIC	70 %		WG	3 oz/a	B		PRE	2.696 g/mx	104	303	703	1003
	DURANGO DMA	4 LBAE/GAL		SL	24 fl oz/a	C		4-6" WEEDS	22.5 ml/mx				
	FIRSTRATE	84 %		WG	0.3 oz/a	C		4-6" WEEDS	0.2696 g/mx				
5	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx	201	504	601	903
	SURVEIL CO-PACK	48 %		WG	2.4 oz/a	B		PRE	2.157 g/mx				
	DURANGO DMA	4 LBAE/GAL		SL	24 fl oz/a	C		4-6" WEEDS	22.5 ml/mx				
6	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx	202	403	604	904
	SURVEIL CO-PACK	48 %		WG	3.6 oz/a	B		PRE	3.235 g/mx				
	DURANGO DMA	4 LBAE/GAL		SL	24 fl oz/a	C		4-6" WEEDS	22.5 ml/mx				
7	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx	203	503	702	804
	BOUNDARY	6.5 LB/GAL		EC	1.75 pt/a	A		14 DPP	26.25 ml/mx				
	SENCOR	75 %		WG	3 oz/a	A		14 DPP	2.696 g/mx				
	2,4-D LV4	4 LBAE/GAL		L	1 pt/a	A		14 DPP	15.0 ml/mx				
	TOUCHDOWN TOTAL	4.17 LBAE/GAL		L	24 fl oz/a	A		14 DPP	22.5 ml/mx				
	FLEXSTAR GT	3.29 LBAE/GAL		L	3.5 pt/a	C		4-6" WEEDS	52.49 ml/mx				
	PREMIUM MSO	100 %		L	1 % v/v	C		4-6" WEEDS	18.0 ml/mx				
N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx					
8	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx	204	401	802	1002
	BOUNDARY	6.5 LB/GAL		EC	1.75 pt/a	A		14 DPP	26.25 ml/mx				
	SENCOR	75 %		WG	3 oz/a	A		14 DPP	2.696 g/mx				
	SHARPEN	2.85 LB/GAL		CS	1 fl oz/a	A		14 DPP	0.9375 ml/mx				
	TOUCHDOWN TOTAL	4.17 LBAE/GAL		L	24 fl oz/a	A		14 DPP	22.5 ml/mx				
	FIREZONE - MSO	100 %		SL	1 % v/v	A		14 DPP	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	A		14 DPP	45.0 ml/mx				
FLEXSTAR GT	3.29 LBAE/GAL		L	3.5 pt/a	C		4-6" WEEDS	52.49 ml/mx					
PREMIUM MSO	100 %		L	1 % v/v	C		4-6" WEEDS	18.0 ml/mx					
N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx					
9	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx	301	502	603	803
	BOUNDARY	6.5 LB/GAL		EC	1.75 pt/a	A		14 DPP	26.25 ml/mx				
	SENCOR	75 %		WG	3 oz/a	A		14 DPP	2.696 g/mx				
	GRAMOXONE SL	2 LBAE/GAL		SL	3 pt/a	A		14 DPP	45.0 ml/mx				
	2,4-D LV4	4 LBAE/GAL		L	1 pt/a	A		14 DPP	15.0 ml/mx				
	NIS	100 %		SL	0.25 % v/v	A		14 DPP	4.5 ml/mx				
	TOUCHDOWN TOTAL	4.17 LBAE/GAL		L	32 fl oz/a	C		4-6" WEEDS	30.0 ml/mx				
N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v	C		4-6" WEEDS	45.0 ml/mx					
10	Untreated Check								302	304	602	1004	

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 Type	Lot Code
14.829	g	SONIC	70	WG	
135.000	ml	DURANGO DMA	4	SL	
494.946	ml	N-PAK AMS	3.4	SL	
0.270	g	FIRSTRATE	84	WG	

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Product quantities required for listed treatments and applications of trials included in this table:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
5.392	g	SURVEIL CO-PACK	48	WG	
78.741	ml	BOUNDARY	6.5	EC	
8.088	g	SENCOR	75	WG	
29.997	ml	2,4-D LV4	4	L	
75.000	ml	TOUCHDOWN TOTAL	4.17	L	
104.989	ml	FLEXSTAR GT	3.29	L	
35.996	ml	PREMIUM MSO	100	L	
0.937	ml	SHARPEN	2.85	CS	
17.998	ml	FIREZONE - MSO	100	SL	
44.995	ml	GRAMOXONE SL	2	SL	
4.500	ml	NIS	100	SL	

* 'Per area' calculations based on spray volume= 15 gal/ac, mix size= 1.8 liters (mix size basis).

* 'Per volume' calculations use spray volume= 15 gal/ac, mix size= 1.8 liters.

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 Project ID: Study Director: Joe Ikley
 Sponsor Contact: DOW

Pest Type	W Weed	W Weed	W Weed	W Weed	
Pest Code	AMBTR	ALLVI	AMBEL	BROSS	
Pest Scientific Name	Ambrosia trifi>	Allium vineale	Ambrosia artem>	Bromus sp.	
Pest Name	Giant ragweed	Wild garlic	Common ragweed	Bromegrass	
Crop Code					GLXMA
BBCH Scale					BSOY
Crop Scientific Name					Glycine max
Crop Name					Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT C
Rating Date	5/27/2014	5/27/2014	5/27/2014	5/27/2014	6/12/2014
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Days After First/Last Applic.	19 19	19 19	19 19	19 19	35 16
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	16 DA-B
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
1 SONIC	3 oz/a B	101			
DURANGO DMA	24 fl oz/a C	402			
N-PAK AMS	2.5 % v/v C	801			
		1001			
Mean =			.	.	.
2 SONIC	4.5 oz/a B	102			
DURANGO DMA	24 fl oz/a C	404			
N-PAK AMS	2.5 % v/v C	701			
		902			
Mean =			.	.	.
3 SONIC	6 oz/a B	103			
DURANGO DMA	24 fl oz/a C	501			
N-PAK AMS	2.5 % v/v C	704			
		901			
Mean =			.	.	.
4 SONIC	3 oz/a B	104			
DURANGO DMA	24 fl oz/a C	303			
FIRSTRATE	0.3 oz/a C	703			
N-PAK AMS	2.5 % v/v C	1003			
Mean =			.	.	.
5 SURVEIL CO-PACK	2.4 oz/a B	201			
DURANGO DMA	24 fl oz/a C	504			
N-PAK AMS	2.5 % v/v C	601			
		903			
Mean =			.	.	3
6 SURVEIL CO-PACK	3.6 oz/a B	202			
DURANGO DMA	24 fl oz/a C	403			
N-PAK AMS	2.5 % v/v C	604			
		904			
Mean =			.	.	5
7 BOUNDARY	1.75 pt/a A	203	100	70	100
SENCOR	3 oz/a A	503	100	95	100
2,4-D LV4	1 pt/a A	702	100	90	100
TOUCHDOWN TOTAL	24 fl oz/a A	804	90	80	100
N-PAK AMS	2.5 % v/v A				100
FLEXSTAR GT	3.5 pt/a C				
PREMIUM MSO	1 % v/v C				
N-PAK AMS	2.5 % v/v C				
Mean =			98	84	100
					98
					0

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Pest Type	W Weed	W Weed	W Weed	W Weed	
Pest Code	AMBTR	ALLVI	AMBEL	BROSS	
Pest Scientific Name	Ambrosia trifida	Allium vineale	Ambrosia artemisiifolia	Bromus sp.	
Pest Name	Giant ragweed	Wild garlic	Common ragweed	Bromegrass	
Crop Code					GLXMA
BBCH Scale					BSOY
Crop Scientific Name					Glycine max
Crop Name					Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT C
Rating Date	5/27/2014	5/27/2014	5/27/2014	5/27/2014	6/12/2014
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Days After First/Last Applic.	19 19	19 19	19 19	19 19	35 16
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	16 DA-B
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 BOUNDARY	1.75 pt/a	A 204	100	100	100
SENCOR	3 oz/a	A 401	100	100	100
SHARPEN	1 fl oz/a	A 802	100	90	100
TOUCHDOWN TOTAL	24 fl oz/a	A 1002	100	100	100
FIREZONE - MSO	1 % v/v	A			
N-PAK AMS	2.5 % v/v	A			
FLEXSTAR GT	3.5 pt/a	C			
PREMIUM MSO	1 % v/v	C			
N-PAK AMS	2.5 % v/v	C			
	Mean =		100	98	100
9 BOUNDARY	1.75 pt/a	A 301	100	95	100
SENCOR	3 oz/a	A 502	100	95	100
GRAMOXONE SL	3 pt/a	A 603	100	95	95
2,4-D LV4	1 pt/a	A 803	100	90	95
NIS	0.25 % v/v	A			
TOUCHDOWN TOTAL	32 fl oz/a	C			
N-PAK AMS	2.5 % v/v	C			
	Mean =		100	94	98
10 Untreated Check		302	0	0	0
		304	0	0	0
		602	0	0	0
		1004	0	0	0
	Mean =		0	0	0

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Pest Type	W Weed	W Weed		W Weed	W Weed			
Pest Code	AMBEL	AMBTR		AMBEL	AMBTR			
Pest Scientific Name	Ambrosia artem>	Ambrosia trifi>		Ambrosia artem>	Ambrosia trifi>			
Pest Name	Common ragweed	Giant ragweed		Common ragweed	Giant ragweed			
Crop Code			GLXMA					
BBCH Scale			BSOY					
Crop Scientific Name			Glycine max					
Crop Name			Soybean					
Part Rated	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P			
Rating Date	6/12/2014	6/12/2014	6/18/2014	6/18/2014	6/18/2014			
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Days After First/Last Applic.	35 16	35 16	41 22	41 22	41 22			
Trt-Eval Interval	16 DA-B	16 DA-B	0 DA-C	0 DA-C	0 DA-C			
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	6	7	8	9	10
1 SONIC	3 oz/a	B	101	100*	83*	0	90	100
DURANGO DMA	24 fl oz/a	C	402	100	50	0	70	60
N-PAK AMS	2.5 % v/v	C	801	85	90	0	70	85
			1001	100	100	0	90	90
			Mean =	96	81	0	80	84
2 SONIC	4.5 oz/a	B	102	80	70	0	95	90
DURANGO DMA	24 fl oz/a	C	404	100	80	0	90	80
N-PAK AMS	2.5 % v/v	C	701	100	100	0	95	100
			902	100	95	0	95	100
			Mean =	95	86	0	94	93
3 SONIC	6 oz/a	B	103	90	85	0	99	95
DURANGO DMA	24 fl oz/a	C	501	95	95	0	85	95
N-PAK AMS	2.5 % v/v	C	704	80	70	0	70	60
			901	90	100	0	75	100
			Mean =	89	88	0	82	88
4 SONIC	3 oz/a	B	104	80	95	0	95	90
DURANGO DMA	24 fl oz/a	C	303	90	90	0	85	90
FIRSTRATE	0.3 oz/a	C	703	90	60	0	80	60
N-PAK AMS	2.5 % v/v	C	1003	100	100	0	100	100
			Mean =	90	86	0	90	85
5 SURVEIL CO-PACK	2.4 oz/a	B	201	100	100	0	99*	100
DURANGO DMA	24 fl oz/a	C	504	95	95	0	90	95
N-PAK AMS	2.5 % v/v	C	601	85	100	0	85	100
			903	100	75	0	85	80
			Mean =	95	93	0	90	94
6 SURVEIL CO-PACK	3.6 oz/a	B	202	90	85	0	95	70
DURANGO DMA	24 fl oz/a	C	403	95	100	0	90	95
N-PAK AMS	2.5 % v/v	C	604	85	95	0	85	90
			904	100	95	0	95	80
			Mean =	93	94	0	91	84
7 BOUNDARY	1.75 pt/a	A	203	95	95	0	70	85
SENCOR	3 oz/a	A	503	60	90	0	50	70
2,4-D LV4	1 pt/a	A	702	70	50	0	65	50
TOUCHDOWN TOTAL	24 fl oz/a	A	804	60	70	0	30	30
N-PAK AMS	2.5 % v/v	A						
FLEXSTAR GT	3.5 pt/a	C						
PREMIUM MSO	1 % v/v	C						
N-PAK AMS	2.5 % v/v	C						
			Mean =	71	76	0	54	59

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBEL	AMBTR		AMBEL
Pest Scientific Name	Ambrosia artem>	Ambrosia trifi>		Ambrosia artem>
Pest Name	Common ragweed	Giant ragweed		Common ragweed
Crop Code			GLXMA	
BBCH Scale			BSOY	
Crop Scientific Name			Glycine max	
Crop Name			Soybean	
Part Rated	PLOT P	PLOT P	PLOT C	PLOT P
Rating Date	6/12/2014	6/12/2014	6/18/2014	6/18/2014
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	35 16	35 16	41 22	41 22
Trt-Eval Interval	16 DA-B	16 DA-B	0 DA-C	0 DA-C
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 BOUNDARY	1.75 pt/a	A 204	90	80
SENCOR	3 oz/a	A 401	90	100
SHARPEN	1 fl oz/a	A 802	70	70
TOUCHDOWN TOTAL	24 fl oz/a	A 1002	65	100
FIREZONE - MSO	1 % v/v	A		
N-PAK AMS	2.5 % v/v	A		
FLEXSTAR GT	3.5 pt/a	C		
PREMIUM MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
	Mean =		79	88
9 BOUNDARY	1.75 pt/a	A 301	100	100
SENCOR	3 oz/a	A 502	70	90
GRAMOXONE SL	3 pt/a	A 603	60	80
2,4-D LV4	1 pt/a	A 803	70	40
NIS	0.25 % v/v	A		
TOUCHDOWN TOTAL	32 fl oz/a	C		
N-PAK AMS	2.5 % v/v	C		
	Mean =		75	78
10 Untreated Check		302	0	0
		304	0	0
		602	0	0
		1004	0	0
	Mean =		0	0

Purdue University Weed Science

Pest Type				W Weed		W Weed	W Weed	W Weed		
Pest Code				SETSS		AMBEL	AMBTR	SETSS		
Pest Scientific Name				Setaria sp.		Ambrosia artem>	Ambrosia trifi>	Setaria sp.		
Pest Name				Foxtail millet		Common ragweed	Giant ragweed	Foxtail millet		
Crop Code					GLXMA				GLXMA	
BBCH Scale					BSOY				BSOY	
Crop Scientific Name					Glycine max				Glycine max	
Crop Name					Soybean				Soybean	
Part Rated				PLOT P	PLOT C	PLOT P	PLOT P	PLOT P	PLOT C	
Rating Date				6/18/2014	6/25/2014	6/25/2014	6/25/2014	6/25/2014	7/2/2014	
Rating Type				CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN	
Rating Unit				%	%	%	%	%	%	
Days After First/Last Applic.				41 22	48 7	48 7	48 7	48 7	55 14	
Trt-Eval Interval				0 DA-C	7 DA-C	7 DA-C	7 DA-C	7 DA-C	14 DA-C	
ARM Action Codes				P	P	P	P	P	P	
Number of Decimals				0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Appl Code	Plot	11	12	13	14	15	16
1	SONIC	3 oz/a	B	101	95	0	100	100	100	0
	DURANGO DMA	24 fl oz/a	C	402	100	0	80	95	100	0
	N-PAK AMS	2.5 % v/v	C	801	85	0	70	100	100	0
				1001	90	0	100	100	100	0
				Mean =	93	0	88	99	100	0
2	SONIC	4.5 oz/a	B	102	85	0	95	95	95	0
	DURANGO DMA	24 fl oz/a	C	404	95	0	95	85	100	0
	N-PAK AMS	2.5 % v/v	C	701	85	0	90	100	100	0
				902	99	0	100	100	100	0
				Mean =	91	0	95	95	99	0
3	SONIC	6 oz/a	B	103	100	0	90	95	100	0
	DURANGO DMA	24 fl oz/a	C	501	90	0	99	100	100	0
	N-PAK AMS	2.5 % v/v	C	704	100	0	95	100	100	0
				901	100	0	100	100	100	0
				Mean =	98	0	96	99	100	0
4	SONIC	3 oz/a	B	104	100	0	100	100	100	0
	DURANGO DMA	24 fl oz/a	C	303	95	0	95	90	100	0
	FIRSTRATE	0.3 oz/a	C	703	95	0	85	85	100	0
	N-PAK AMS	2.5 % v/v	C	1003	95	0	100	100	99	0
				Mean =	96	0	95	94	100	0
5	SURVEIL CO-PACK	2.4 oz/a	B	201	100	0	100	95	100	0
	DURANGO DMA	24 fl oz/a	C	504	95	0	100	99	100	0
	N-PAK AMS	2.5 % v/v	C	601	95	0	80	100	100	0
				903	95	0	100	100	100	0
				Mean =	96	0	95	99	100	0
6	SURVEIL CO-PACK	3.6 oz/a	B	202	95	0	95	95	100	0
	DURANGO DMA	24 fl oz/a	C	403	100	0	90	100	100	0
	N-PAK AMS	2.5 % v/v	C	604	100	0	95	100	100	0
				904	100	0	95	100	100	0
				Mean =	99	0	94	99	100	0
7	BOUNDARY	1.75 pt/a	A	203	90	5	100	100	100	0
	SENCOR	3 oz/a	A	503	35	5	100	100	100	0
	2,4-D LV4	1 pt/a	A	702	30	5	100	95	95	0
	TOUCHDOWN TOTAL	24 fl oz/a	A	804	30	5	100	100	100	0
	N-PAK AMS	2.5 % v/v	A							
	FLEXSTAR GT	3.5 pt/a	C							
	PREMIUM MSO	1 % v/v	C							
	N-PAK AMS	2.5 % v/v	C							
				Mean =	46	5	100	99	99	0

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETSS	AMBEL	AMBTR	SETSS	SETSS
Pest Scientific Name	Setaria sp.	Ambrosia artem>	Ambrosia trifi>	Setaria sp.	Setaria sp.
Pest Name	Foxtail millet	Common ragweed	Giant ragweed	Foxtail millet	Foxtail millet
Crop Code					GLXMA
BBCH Scale					BSOY
Crop Scientific Name		GLXMA			Glycine max
Crop Name		Soybean			Soybean
Part Rated	PLOT P	PLOT C	PLOT P	PLOT P	PLOT C
Rating Date	6/18/2014	6/25/2014	6/25/2014	6/25/2014	7/2/2014
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Days After First/Last Applic.	41 22	48 7	48 7	48 7	55 14
Trt-Eval Interval	0 DA-C	7 DA-C	7 DA-C	7 DA-C	14 DA-C
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	11	12	13
8 BOUNDARY	1.75 pt/a	A 204	80	5	100
SENCOR	3 oz/a	A 401	20	5	100
SHARPEN	1 fl oz/a	A 802	70	5	100
TOUCHDOWN TOTAL	24 fl oz/a	A 1002	40	5	100
FIREZONE - MSO	1 % v/v	A			100
N-PAK AMS	2.5 % v/v	A			
FLEXSTAR GT	3.5 pt/a	C			
PREMIUM MSO	1 % v/v	C			
N-PAK AMS	2.5 % v/v	C			
	Mean =		53	5	100
9 BOUNDARY	1.75 pt/a	A 301	80	0	100
SENCOR	3 oz/a	A 502	20	0	70
GRAMOXONE SL	3 pt/a	A 603	30	0	80
2,4-D LV4	1 pt/a	A 803	50	0	70
NIS	0.25 % v/v	A			65
TOUCHDOWN TOTAL	32 fl oz/a	C			100
N-PAK AMS	2.5 % v/v	C			
	Mean =		45	0	80
10 Untreated Check		302	0	0	0
		304	0	0	0
		602	0	0	0
		1004	0	0	0
	Mean =		0	0	0

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBEL	AMBTR	SETSS	AMBEL
Pest Scientific Name	Ambrosia artem>	Ambrosia trifi>	Setaria sp.	Ambrosia artem>
Pest Name	Common ragweed	Giant ragweed	Foxtail millet	Common ragweed
Crop Code				GLXMA
BBCH Scale				BSOY
Crop Scientific Name				Glycine max
Crop Name				Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT C
Rating Date	7/2/2014	7/2/2014	7/2/2014	7/17/2014
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%
Days After First/Last Applic.	55 14	55 14	55 14	70 29
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	29 DA-C
ARM Action Codes	P	P	P	P
Number of Decimals	0	0	0	0
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	17	18
8 BOUNDARY	1.75 pt/a	A 204	100	95
SENCOR	3 oz/a	A 401	100	100
SHARPEN	1 fl oz/a	A 802	100	95
TOUCHDOWN TOTAL	24 fl oz/a	A 1002	100	100
FIREZONE - MSO	1 % v/v	A		
N-PAK AMS	2.5 % v/v	A		
FLEXSTAR GT	3.5 pt/a	C		
PREMIUM MSO	1 % v/v	C		
N-PAK AMS	2.5 % v/v	C		
		Mean =	100	98
9 BOUNDARY	1.75 pt/a	A 301	100	100
SENCOR	3 oz/a	A 502	70	95
GRAMOXONE SL	3 pt/a	A 603	80	80
2,4-D LV4	1 pt/a	A 803	70	60
NIS	0.25 % v/v	A		
TOUCHDOWN TOTAL	32 fl oz/a	C		
N-PAK AMS	2.5 % v/v	C		
		Mean =	80	84
10 Untreated Check		302	0	0
		304	0	0
		602	0	0
		1004	0	0
		Mean =	0	0

Purdue University Weed Science

				W Weed AMBTR Ambrosia trifi> Giant ragweed	W Weed SETSS Setaria sp. Foxtail millet	W Weed XANST Xanthium strum> Heart-leaf coc>	
Pest Type							
Pest Code							
Pest Scientific Name							
Pest Name							
Crop Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Part Rated				PLOT P	PLOT P	PLOT P	
Rating Date				7/17/2014	7/17/2014	7/17/2014	
Rating Type				CONTRO	CONTRO	CONTRO	
Rating Unit				%	%	%	
Days After First/Last Applic.				70 29	70 29	70 29	
Trt-Eval Interval				29 DA-C	29 DA-C	29 DA-C	
ARM Action Codes				P	P	P	
Number of Decimals				0	0	0	
Trt No.	Treatment Name	Rate	Appl Code	Plot	22	23	24
1	SONIC	3 oz/a	B	101	95	85	60
	DURANGO DMA	24 fl oz/a	C	402	75	30	60
	N-PAK AMS	2.5 % v/v	C	801	100	20	25
				1001	100	25	65
				Mean =	93	40	53
2	SONIC	4.5 oz/a	B	102	85	60	60
	DURANGO DMA	24 fl oz/a	C	404	30	60	70
	N-PAK AMS	2.5 % v/v	C	701	90	30	75
				902	90	40	80
				Mean =	74	48	71
3	SONIC	6 oz/a	B	103	90	85	95
	DURANGO DMA	24 fl oz/a	C	501	95	80	65
	N-PAK AMS	2.5 % v/v	C	704	87*	20	60
				901	100	25	75
				Mean =	93	53	74
4	SONIC	3 oz/a	B	104	90	85	85
	DURANGO DMA	24 fl oz/a	C	303	90	95	100
	FIRSTRATE	0.3 oz/a	C	703	35	90	100
	N-PAK AMS	2.5 % v/v	C	1003	100	95	100
				Mean =	79	91	96
5	SURVEIL CO-PACK	2.4 oz/a	B	201	100	90	75
	DURANGO DMA	24 fl oz/a	C	504	80	20	80
	N-PAK AMS	2.5 % v/v	C	601	90	0	70
				903	40	35	60
				Mean =	78	36	71
6	SURVEIL CO-PACK	3.6 oz/a	B	202	90	60	90
	DURANGO DMA	24 fl oz/a	C	403	90	90	70
	N-PAK AMS	2.5 % v/v	C	604	50	0	80
				904	10	0	80*
				Mean =	60	38	80
7	BOUNDARY	1.75 pt/a	A	203	95	95	80
	SENCOR	3 oz/a	A	503	85	70	80
	2,4-D LV4	1 pt/a	A	702	70	60	90
	TOUCHDOWN TOTAL	24 fl oz/a	A	804	65	57*	10
	N-PAK AMS	2.5 % v/v	A				
	FLEXSTAR GT	3.5 pt/a	C				
	PREMIUM MSO	1 % v/v	C				
	N-PAK AMS	2.5 % v/v	C				
				Mean =	79	70	65

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed
Pest Code	AMBTR	SETSS	XANST
Pest Scientific Name	Ambrosia trifida	Setaria sp.	Xanthium strumarium
Pest Name	Giant ragweed	Foxtail millet	Heart-leaf cocklebur
Crop Code			
BBCH Scale			
Crop Scientific Name			
Crop Name			
Part Rated	PLOT P	PLOT P	PLOT P
Rating Date	7/17/2014	7/17/2014	7/17/2014
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%
Days After First/Last Applic.	70 29	70 29	70 29
Trt-Eval Interval	29 DA-C	29 DA-C	29 DA-C
ARM Action Codes	P	P	P
Number of Decimals	0	0	0

Trt Treatment	Rate	Appl	Plot	22	23	24
No. Name	Rate Unit	Code				
8 BOUNDARY	1.75 pt/a	A	204	85	95	70
SENCOR	3 oz/a	A	401	100	100	95
SHARPEN	1 fl oz/a	A	802	85	35	75
TOUCHDOWN TOTAL	24 fl oz/a	A	1002	100	10	80
FIREZONE - MSO	1 % v/v	A				
N-PAK AMS	2.5 % v/v	A				
FLEXSTAR GT	3.5 pt/a	C				
PREMIUM MSO	1 % v/v	C				
N-PAK AMS	2.5 % v/v	C				
			Mean =	93	60	80
9 BOUNDARY	1.75 pt/a	A	301	100	75	60
SENCOR	3 oz/a	A	502	85	60	60
GRAMOXONE SL	3 pt/a	A	603	40	30	20
2,4-D LV4	1 pt/a	A	803	15	70	100
NIS	0.25 % v/v	A				
TOUCHDOWN TOTAL	32 fl oz/a	C				
N-PAK AMS	2.5 % v/v	C				
			Mean =	60	59	60
10 Untreated Check			302	0	0	0
			304	0	0	0
			602	0	0	0
			1004	0	0	0
			Mean =	0	0	0

Purdue University Weed Science

2014 SOYBEAN SHOWCASE PROGRAMS

Trial ID: 14S-SEP-NTS-10 Location: SEPAC Trial Year: 2014
Protocol ID: 14S-SEP-NTS-10 Investigator: Dr. Bill Johnson
Project ID: Study Director: Joe Ikley
Sponsor Contact: DOW

Pest Type

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

Pest Code

AMBTR, Ambrosia trifida, = US
ALLVI, Allium vineale, = US
AMBEL, Ambrosia artemisiifolia, = US
BROSS, Bromus sp., = US
SETSS, Setaria sp., = US
XANST, Xanthium strumarium, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Part Rated

PLOT = plot
P = Pest is Part Rated
C = Crop is Part Rated

Rating Type

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

Rating Unit

% = percent

ARM Action Codes

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

Purdue University Weed Science

2014 SOYBEAN SHOWCASE PROGRAMS

Trial ID: 14S-SEP-NTS-10 Location: SEPAC Trial Year: 2014
 Protocol ID: 14S-SEP-NTS-10 Investigator: Dr. Bill Johnson
 Project ID: Study Director: Joe Ikley
 Sponsor Contact: DOW

Pest Type	W Weed	W Weed	W Weed	W Weed		W Weed		
Pest Code	AMBTR	ALLVI	AMBEL	BROSS		AMBEL		
Pest Scientific Name	Ambrosia trifi>	Allium vineale	Ambrosia artem>	Bromus sp.		Ambrosia artem>		
Pest Name	Giant ragweed	Wild garlic	Common ragweed	Bromegrass		Common ragweed		
Crop Code					GLXMA			
BBCH Scale					BSOY			
Crop Scientific Name					Glycine max			
Crop Name					Soybean			
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT C	PLOT P		
Rating Date	5/27/2014	5/27/2014	5/27/2014	5/27/2014	6/12/2014	6/12/2014		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit	%	%	%	%	%	%		
Days After First/Last Applic.	19 19	19 19	19 19	19 19	35 16	35 16		
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	16 DA-B	16 DA-B		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	1	2	3	4	5	6
1 SONIC DURANGO DMA N-PAK AMS	3 oz/a 24 fl oz/a 2.5 % v/v	B C C					0 b	96 a
2 SONIC DURANGO DMA N-PAK AMS	4.5 oz/a 24 fl oz/a 2.5 % v/v	B C C					0 b	95 ab
3 SONIC DURANGO DMA N-PAK AMS	6 oz/a 24 fl oz/a 2.5 % v/v	B C C					0 b	89 ab
4 SONIC DURANGO DMA FIRSTRATE N-PAK AMS	3 oz/a 24 fl oz/a 0.3 oz/a 2.5 % v/v	B C C C					0 b	90 ab
5 SURVEIL CO-PACK DURANGO DMA N-PAK AMS	2.4 oz/a 24 fl oz/a 2.5 % v/v	B C C					1 b	95 ab
6 SURVEIL CO-PACK DURANGO DMA N-PAK AMS	3.6 oz/a 24 fl oz/a 2.5 % v/v	B C C					4 a	93 ab
7 BOUNDARY SENCOR 2,4-D LV4 TOUCHDOWN TOTAL N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a 3 oz/a 1 pt/a 24 fl oz/a 2.5 % v/v 3.5 pt/a 1 % v/v 2.5 % v/v	A A A A A C C C	98 a	84 b	100 a	98 a	0 b	71 b
8 BOUNDARY SENCOR SHARPEN TOUCHDOWN TOTAL FIREZONE - MSO N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a 3 oz/a 1 fl oz/a 24 fl oz/a 1 % v/v 2.5 % v/v 3.5 pt/a 1 % v/v 2.5 % v/v	A A A A A A C C C	100 a	98 a	100 a	98 a	0 b	79 ab

Means followed by same letter 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=6,7,9,22,23,24

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMBTR	ALLVI	AMBEL	BROSS	GLXMA	AMBEL		
Pest Scientific Name	Ambrosia trifi>	Allium vineale	Ambrosia artem>	Bromus sp.	Glycine max	Ambrosia artem>		
Pest Name	Giant ragweed	Wild garlic	Common ragweed	Bromegrass	Soybean	Common ragweed		
Crop Code					BSOY			
BBCH Scale					PHYGEN			
Crop Scientific Name								
Crop Name								
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT C	PLOT P		
Rating Date	5/27/2014	5/27/2014	5/27/2014	5/27/2014	6/12/2014	6/12/2014		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit	%	%	%	%	%	%		
Days After First/Last Applic.	19 19	19 19	19 19	19 19	35 16	35 16		
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	16 DA-B	16 DA-B		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	1	2	3	4	5	6
9 BOUNDARY	1.75 pt/a	A	100 a	94 ab	98 a	100 a	0 b	75 ab
SENCOR	3 oz/a	A						
GRAMOXONE SL	3 pt/a	A						
2,4-D LV4	1 pt/a	A						
NIS	0.25 % v/v	A						
TOUCHDOWN TOTAL	32 fl oz/a	C						
N-PAK AMS	2.5 % v/v	C						
10 Untreated Check			0 b	0 c	0 b	0 b	0 b	0 c
LSD (P=.05)			4.0	10.3	2.3	4.6	0.8	15.0
Standard Deviation			2.5	6.5	1.4	2.9	0.6	10.3
CV			3.36	9.39	1.94	3.91	122.05	13.2
Bartlett's X2			0.0	5.697	0.0	0.0	0.2	6.681
P(Bartlett's X2)				0.058			0.655	0.571
Skewness			-1.2666*	-1.1623*	-1.2725*	-1.2569*	2.696*	-1.9065*
Kurtosis			-0.4529	-0.5847	-0.4452	-0.4635	6.228*	2.8801*

Purdue University Weed Science

				W Weed AMBTR Ambrosia trifi> Giant ragweed	GLXMA BSOY Glycine max Soybean	W Weed AMBEL Ambrosia artem> Common ragweed	W Weed AMBTR Ambrosia trifi> Giant ragweed	W Weed SETSS Setaria sp. Foxtail millet	GLXMA BSOY Glycine max Soybean
				PLOT P	PLOT C	PLOT P	PLOT P	PLOT P	PLOT C
				6/12/2014	6/18/2014	6/18/2014	6/18/2014	6/18/2014	6/25/2014
				CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
				%	%	%	%	%	%
				35 16	41 22	41 22	41 22	41 22	48 7
				16 DA-B	0 DA-C	0 DA-C	0 DA-C	0 DA-C	7 DA-C
				P	P	P	P	P	P
				0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
1	SONIC DURANGO DMA N-PAK AMS	3 oz/a 24 fl oz/a 2.5 % v/v	B C C	81 a	0 a	80 ab	84 a	93 a	0 b
2	SONIC DURANGO DMA N-PAK AMS	4.5 oz/a 24 fl oz/a 2.5 % v/v	B C C	86 a	0 a	94 a	93 a	91 a	0 b
3	SONIC DURANGO DMA N-PAK AMS	6 oz/a 24 fl oz/a 2.5 % v/v	B C C	88 a	0 a	82 ab	88 a	98 a	0 b
4	SONIC DURANGO DMA FIRSTRATE N-PAK AMS	3 oz/a 24 fl oz/a 0.3 oz/a 2.5 % v/v	B C C C	86 a	0 a	90 ab	85 a	96 a	0 b
5	SURVEIL CO-PACK DURANGO DMA N-PAK AMS	2.4 oz/a 24 fl oz/a 2.5 % v/v	B C C	93 a	0 a	90 ab	94 a	96 a	0 b
6	SURVEIL CO-PACK DURANGO DMA N-PAK AMS	3.6 oz/a 24 fl oz/a 2.5 % v/v	B C C	94 a	0 a	91 ab	84 a	99 a	0 b
7	BOUNDARY SENCOR 2,4-D LV4 TOUCHDOWN TOTAL N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a 3 oz/a 1 pt/a 24 fl oz/a 2.5 % v/v 3.5 pt/a 1 % v/v 2.5 % v/v	A A A A A C C C	76 a	0 a	54 c	59 a	46 b	5 a
8	BOUNDARY SENCOR SHARPEN TOUCHDOWN TOTAL FIREZONE - MSO N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a 3 oz/a 1 fl oz/a 24 fl oz/a 1 % v/v 2.5 % v/v 3.5 pt/a 1 % v/v 2.5 % v/v	A A A A A A C C C	88 a	0 a	68 bc	79 a	53 b	5 a

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMBTR	AMBEL	AMBTR	SETSS		
Pest Scientific Name	Ambrosia trifi>	Ambrosia artem>	Ambrosia trifi>	Setaria sp.		
Pest Name	Giant ragweed	Common ragweed	Giant ragweed	Foxtail millet		
Crop Code		GLXMA			GLXMA	
BBCH Scale		BSOY			BSOY	
Crop Scientific Name		Glycine max			Glycine max	
Crop Name		Soybean			Soybean	
Part Rated	PLOT P	PLOT C	PLOT P	PLOT P	PLOT C	
Rating Date	6/12/2014	6/18/2014	6/18/2014	6/18/2014	6/25/2014	
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	
Rating Unit	%	%	%	%	%	
Days After First/Last Applic.	35 16	41 22	41 22	41 22	48 7	
Trt-Eval Interval	16 DA-B	0 DA-C	0 DA-C	0 DA-C	7 DA-C	
ARM Action Codes	P	P	P	P	P	
Number of Decimals	0	0	0	0	0	
Trt No.	7	8	9	10	11	12
Treatment Name	9 BOUNDARY					
Rate	1.75 pt/a					
Unit	A					
Code	A					
Mean	78 a	0 a	68 bc	65 a	45 b	0 b
SENCOR	3 oz/a					
GRAMOXONE SL	3 pt/a					
2,4-D LV4	1 pt/a					
NIS	0.25 % v/v					
TOUCHDOWN TOTAL	32 fl oz/a					
N-PAK AMS	2.5 % v/v					
10 Untreated Check	0 b	0 a	0 d	0 b	0 c	0 b
LSD (P=.05)	24.9	0.0	15.7	27.1	21.0	0.0
Standard Deviation	17.1	0.0	10.8	18.7	14.4	0.0
CV	22.3	0.0	15.1	25.67	20.17	0.0
Bartlett's X2	6.766	0.0	16.097	8.925	38.65	0.0
P(Bartlett's X2)	0.562	.	0.041*	0.349	0.001*	.
Skewness	-1.6715*	.	-1.4718*	-1.3318*	-1.0355*	1.5591*
Kurtosis	1.892*	.	1.3741	0.7293	-0.517	0.4507

Purdue University Weed Science

				W Weed AMBEL Ambrosia artem> Common ragweed	W Weed AMBTR Ambrosia trifi> Giant ragweed	W Weed SETSS Setaria sp. Foxtail millet	GLXMA BSOY Glycine max Soybean	W Weed AMBEL Ambrosia artem> Common ragweed	W Weed AMBTR Ambrosia trifi> Giant ragweed
				PLOT P 6/25/2014 CONTRO %	PLOT P 6/25/2014 CONTRO %	PLOT P 6/25/2014 CONTRO %	PLOT C 7/2/2014 PHYGEN %	PLOT P 7/2/2014 CONTRO %	PLOT P 7/2/2014 CONTRO %
				48 7 7 DA-C P 0	48 7 7 DA-C P 0	48 7 7 DA-C P 0	55 14 14 DA-C P 0	55 14 14 DA-C P 0	55 14 14 DA-C P 0
Trt No.	Treatment Name	Rate	Appl Code	13	14	15	16	17	18
1	SONIC DURANGO DMA N-PAK AMS	3 oz/a B 24 fl oz/a C 2.5 % v/v C		88 ab	99 a	100 a	0 a	94 a	98 a
2	SONIC DURANGO DMA N-PAK AMS	4.5 oz/a B 24 fl oz/a C 2.5 % v/v C		95 ab	95 a	99 a	0 a	99 a	91 a
3	SONIC DURANGO DMA N-PAK AMS	6 oz/a B 24 fl oz/a C 2.5 % v/v C		96 ab	99 a	100 a	0 a	96 a	96 a
4	SONIC DURANGO DMA FIRSTRATE N-PAK AMS	3 oz/a B 24 fl oz/a C 0.3 oz/a C 2.5 % v/v C		95 ab	94 a	100 a	0 a	91 a	94 a
5	SURVEIL CO-PACK DURANGO DMA N-PAK AMS	2.4 oz/a B 24 fl oz/a C 2.5 % v/v C		95 ab	99 a	100 a	0 a	96 a	91 a
6	SURVEIL CO-PACK DURANGO DMA N-PAK AMS	3.6 oz/a B 24 fl oz/a C 2.5 % v/v C		94 ab	99 a	100 a	0 a	95 a	90 a
7	BOUNDARY SENCOR 2,4-D LV4 TOUCHDOWN TOTAL N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a A 3 oz/a A 1 pt/a A 24 fl oz/a A 2.5 % v/v A 3.5 pt/a C 1 % v/v C 2.5 % v/v C		100 a	99 a	99 a	0 a	99 a	96 a
8	BOUNDARY SENCOR SHARPEN TOUCHDOWN TOTAL FIREZONE - MSO N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a A 3 oz/a A 1 fl oz/a A 24 fl oz/a A 1 % v/v A 2.5 % v/v A 3.5 pt/a C 1 % v/v C 2.5 % v/v C		100 a	100 a	98 a	0 a	100 a	98 a

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed		W Weed	W Weed
Pest Code	AMBEL	AMBTR	SETSS		AMBEL	AMBTR
Pest Scientific Name	Ambrosia artem>	Ambrosia trifi>	Setaria sp.		Ambrosia artem>	Ambrosia trifi>
Pest Name	Common ragweed	Giant ragweed	Foxtail millet		Common ragweed	Giant ragweed
Crop Code				GLXMA		
BBCH Scale				B SOY		
Crop Scientific Name				Glycine max		
Crop Name				Soybean		
Part Rated	PLOT P	PLOT P	PLOT P	PLOT C	PLOT P	PLOT P
Rating Date	6/25/2014	6/25/2014	6/25/2014	7/2/2014	7/2/2014	7/2/2014
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Days After First/Last Applic.	48 7	48 7	48 7	55 14	55 14	55 14
Trt-Eval Interval	7 DA-C	7 DA-C	7 DA-C	14 DA-C	14 DA-C	14 DA-C
ARM Action Codes	P	P	P	P	P	P
Number of Decimals	0	0	0	0	0	0
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	13	14	15	16
9 BOUNDARY	1.75 pt/a	A	80 b	86 a	100 a	0 a
SENCOR	3 oz/a	A				
GRAMOXONE SL	3 pt/a	A				
2,4-D LV4	1 pt/a	A				
NIS	0.25 % v/v	A				
TOUCHDOWN TOTAL	32 fl oz/a	C				
N-PAK AMS	2.5 % v/v	C				
10 Untreated Check			0 c	0 b	0 b	0 a
LSD (P=.05)	10.5		9.1	2.1	0.0	9.7
Standard Deviation	7.3		6.3	1.5	0.0	6.7
CV	8.61		7.2	1.64	0.0	7.85
Bartlett's X2	12.445		22.168	6.479	0.0	19.464
P(Bartlett's X2)	0.053		0.002*	0.09	.	0.007*
Skewness	-2.3603*		-2.5606*	-2.7591*	.	-2.4107*
Kurtosis	4.4352*		5.1413*	5.9347*	.	4.5973*

Purdue University Weed Science

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	SETSS	AMBEL	AMBTR	SETSS	XANST			
Pest Scientific Name	Setaria sp.	Ambrosia artem>	Ambrosia trifi>	Setaria sp.	Xanthium strum>			
Pest Name	Foxtail millet	Common ragweed	Giant ragweed	Foxtail millet	Heart-leaf coc>			
Crop Code								
BBCH Scale								
Crop Scientific Name		GLXMA						
Crop Name		BSOY						
Part Rated	PLOT P	PLOT C	PLOT P	PLOT P	PLOT P			
Rating Date	7/2/2014	7/17/2014	7/17/2014	7/17/2014	7/17/2014			
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Days After First/Last Applic.	55 14	70 29	70 29	70 29	70 29			
Trt-Eval Interval	14 DA-C	29 DA-C	29 DA-C	29 DA-C	29 DA-C			
ARM Action Codes	P	P	P	P	P			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate	Appl Code	19	20	21	22	23	24
1 SONIC DURANGO DMA N-PAK AMS	3 oz/a 24 fl oz/a 2.5 % v/v	B C C	93 a	0 a	95 a	93 a	40 bc	53 a
2 SONIC DURANGO DMA N-PAK AMS	4.5 oz/a 24 fl oz/a 2.5 % v/v	B C C	90 a	0 a	90 a	74 a	48 ab	71 a
3 SONIC DURANGO DMA N-PAK AMS	6 oz/a 24 fl oz/a 2.5 % v/v	B C C	91 a	0 a	99 a	93 a	53 ab	74 a
4 SONIC DURANGO DMA FIRSTRATE N-PAK AMS	3 oz/a 24 fl oz/a 0.3 oz/a 2.5 % v/v	B C C C	95 a	0 a	96 a	79 a	91 a	96 a
5 SURVEIL CO-PACK DURANGO DMA N-PAK AMS	2.4 oz/a 24 fl oz/a 2.5 % v/v	B C C	88 a	0 a	98 a	78 a	36 bc	71 a
6 SURVEIL CO-PACK DURANGO DMA N-PAK AMS	3.6 oz/a 24 fl oz/a 2.5 % v/v	B C C	91 a	0 a	90 a	60 a	38 bc	80 a
7 BOUNDARY SENCOR 2,4-D LV4 TOUCHDOWN TOTAL N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a 3 oz/a 1 pt/a 24 fl oz/a 2.5 % v/v 3.5 pt/a 1 % v/v 2.5 % v/v	A A A A A C C C	95 a	0 a	99 a	79 a	70 ab	65 a
8 BOUNDARY SENCOR SHARPEN TOUCHDOWN TOTAL FIREZONE - MSO N-PAK AMS FLEXSTAR GT PREMIUM MSO N-PAK AMS	1.75 pt/a 3 oz/a 1 fl oz/a 24 fl oz/a 1 % v/v 2.5 % v/v 3.5 pt/a 1 % v/v 2.5 % v/v	A A A A A A C C C	96 a	0 a	100 a	93 a	60 ab	80 a

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Pest Type	W Weed		W Weed	W Weed	W Weed	W Weed		
Pest Code	SETSS		AMBEL	AMBTR	SETSS	XANST		
Pest Scientific Name	Setaria sp.		Ambrosia artem>	Ambrosia trifi>	Setaria sp.	Xanthium strum>		
Pest Name	Foxtail millet		Common ragweed	Giant ragweed	Foxtail millet	Heart-leaf coc>		
Crop Code		GLXMA						
BBCH Scale		BSOY						
Crop Scientific Name		Glycine max						
Crop Name		Soybean						
Part Rated	PLOT P	PLOT C	PLOT P	PLOT P	PLOT P	PLOT P		
Rating Date	7/2/2014	7/17/2014	7/17/2014	7/17/2014	7/17/2014	7/17/2014		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Days After First/Last Applic.	55 14	70 29	70 29	70 29	70 29	70 29		
Trt-Eval Interval	14 DA-C	29 DA-C	29 DA-C	29 DA-C	29 DA-C	29 DA-C		
ARM Action Codes	P	P	P	P	P	P		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	19	20	21	22	23	24
9 BOUNDARY	1.75 pt/a	A	95 a	0 a	81 a	60 a	59 ab	60 a
SENCOR	3 oz/a	A						
GRAMOXONE SL	3 pt/a	A						
2,4-D LV4	1 pt/a	A						
NIS	0.25 % v/v	A						
TOUCHDOWN TOTAL	32 fl oz/a	C						
N-PAK AMS	2.5 % v/v	C						
10 Untreated Check			0 b	0 a	0 b	0 b	0 c	0 b
LSD (P=.05)			9.1	0.0	11.8	34.9	32.1	28.1
Standard Deviation			6.3	0.0	8.2	24.0	22.1	19.4
CV			7.53	0.0	9.63	33.92	44.68	29.78
Bartlett's X2			5.569	0.0	23.594	13.894	13.181	15.797
P(Bartlett's X2)			0.695	.	0.001*	0.085	0.106	0.045*
Skewness			-2.5492*	.	-2.3568*	-1.1053*	-0.0654	-1.1361*
Kurtosis			5.2011*	.	4.352*	-0.2623	-1.4947*	0.4

Purdue University Weed Science

2014 SOYBEAN SHOWCASE PROGRAMS

Trial ID: 14S-SEP-NTS-10 Location: SEPAC Trial Year: 2014
 Protocol ID: 14S-SEP-NTS-10 Investigator: Dr. Bill Johnson
 Project ID: Study Director: Joe Ikley
 Sponsor Contact: DOW

Randomized Complete Block (RCB) AOV For W Weed AMBTR Ambrosia trifida Giant ragweed PLOT P 5/27/2014 CONTRO % 19 19 0 DA-B P 0 (Data Column 1)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	15	29593.750000			
Replicate	3	18.750000	6.250000	1.000	0.4363
Treatment	3	29518.750000	9839.583333	1574.333	0.0001
Error	9	56.250000	6.250000		

Randomized Complete Block (RCB) AOV For W Weed ALLVI Allium vineale Wild garlic PLOT P 5/27/2014 CONTRO % 19 19 0 DA-B P 0 (Data Column 2)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	15	26075.000000			
Replicate	3	87.500000	29.166667	0.700	0.5753
Treatment	3	25612.500000	8537.500000	204.900	0.0001
Error	9	375.000000	41.666667		

Randomized Complete Block (RCB) AOV For W Weed AMBEL Ambrosia artemisiifolia Common ragweed PLOT P 5/27/2014 CONTRO % 19 19 0 DA-B P 0 (Data Column 3)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	15	29543.750000			
Replicate	3	6.250000	2.083333	1.000	0.4363
Treatment	3	29518.750000	9839.583333	4723.000	0.0001
Error	9	18.750000	2.083333		

Randomized Complete Block (RCB) AOV For W Weed BROSS Bromus sp. Bromegrass PLOT P 5/27/2014 CONTRO % 19 19 0 DA-B P 0 (Data Column 4)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	15	29175.000000			
Replicate	3	75.000000	25.000000	3.000	0.0877
Treatment	3	29025.000000	9675.000000	1161.000	0.0001
Error	9	75.000000	8.333333		

Randomized Complete Block (RCB) AOV For GLXMA BSOY Glycine max Soybean PLOT C 6/12/2014 PHYGEN % 35 16 16 DA-B P 0 (Data Column 5)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	67.975000			
Replicate	3	1.675000	0.558333	1.661	0.1988
Treatment	9	57.225000	6.358333	18.917	0.0001
Error	27	9.075000	0.336111		

Randomized Complete Block (RCB) AOV For W Weed AMBEL Ambrosia artemisiifolia Common ragweed PLOT P 6/12/2014 CONTRO % 35 16 16 DA-B P 0 (Data Column 6)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	38	33377.500000			
Replicate	3	527.500000	175.833333	1.649	0.2024
Treatment	9	30077.500000	3341.944444	31.340	0.0001
Error	26	2772.500000	106.634615		

Randomized Complete Block (RCB) AOV For W Weed AMBTR Ambrosia trifida Giant ragweed PLOT P 6/12/2014 CONTRO % 35 16 16 DA-B P 0 (Data Column 7)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	38	35460.000000			
Replicate	3	398.333333	132.777778	0.452	0.7180
Treatment	9	27426.666667	3047.407407	10.378	0.0001
Error	26	7635.000000	293.653846		

Randomized Complete Block (RCB) AOV For GLXMA BSOY Glycine max Soybean PLOT C 6/18/2014 PHYGEN % 41 22 0 DA-C P 0 (Data Column 8)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	0.000000000000			
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000
Treatment	9	0.000000000000	0.000000000000	0.000	1.0000
Error	27	0.000000000000	0.000000000000		

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Randomized Complete Block (RCB) AOV For W Weed AMBEL Ambrosia artemisiifolia Common ragweed PLOT P 6/18/2014 CONTRO % 41 22 0 DA-C P 0 (Data Column 9)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	38	33155.744856			
Replicate	3	1288.991770	429.663923	3.677	0.0248
Treatment	9	28828.679012	3203.186557	27.413	0.0001
Error	26	3038.074074	116.849003		

Randomized Complete Block (RCB) AOV For W Weed AMBTR Ambrosia trifida Giant ragweed PLOT P 6/18/2014 CONTRO % 41 22 0 DA-C P 0 (Data Column 10)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	38744.375000			
Replicate	3	1196.875000	398.958333	1.140	0.3506
Treatment	9	28100.625000	3122.291667	8.924	0.0001
Error	27	9446.875000	349.884259		

Randomized Complete Block (RCB) AOV For W Weed SETSS Setaria sp. Foxtail millet PLOT P 6/18/2014 CONTRO % 41 22 0 DA-C P 0 (Data Column 11)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	48463.600000			
Replicate	3	1720.200000	573.400000	2.749	0.0622
Treatment	9	41111.600000	4567.955556	21.900	0.0001
Error	27	5631.800000	208.585185		

Randomized Complete Block (RCB) AOV For GLXMA BSOY Glycine max Soybean PLOT C 6/25/2014 PHYGEN % 48 7 7 DA-C P 0 (Data Column 12)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	160.000000			
Replicate	3	0.000000	0.000000	0.000	1.0000
Treatment	9	160.000000	17.777778	0.000	1.0000
Error	27	0.000000	0.000000		

Randomized Complete Block (RCB) AOV For W Weed AMBEL Ambrosia artemisiifolia Common ragweed PLOT P 6/25/2014 CONTRO % 48 7 7 DA-C P 0 (Data Column 13)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	34646.975000			
Replicate	3	435.075000	145.025000	2.756	0.0618
Treatment	9	32791.225000	3643.469444	69.244	0.0001
Error	27	1420.675000	52.617593		

Randomized Complete Block (RCB) AOV For W Weed AMBTR Ambrosia trifida Giant ragweed PLOT P 6/25/2014 CONTRO % 48 7 7 DA-C P 0 (Data Column 14)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	35209.100000			
Replicate	3	23.700000	7.900000	0.202	0.8941
Treatment	9	34129.600000	3792.177778	96.977	0.0001
Error	27	1055.800000	39.103704		

Randomized Complete Block (RCB) AOV For W Weed SETSS Setaria sp. Foxtail millet PLOT P 6/25/2014 CONTRO % 48 7 7 DA-C P 0 (Data Column 15)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	35669.975000			
Replicate	3	5.075000	1.691667	0.785	0.5127
Treatment	9	35606.725000	3956.302778	1836.187	0.0001
Error	27	58.175000	2.154630		

Randomized Complete Block (RCB) AOV For GLXMA BSOY Glycine max Soybean PLOT C 7/2/2014 PHYGEN % 55 14 14 DA-C P 0 (Data Column 16)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	0.000000000000			
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000
Treatment	9	0.000000000000	0.000000000000	0.000	1.0000
Error	27	0.000000000000	0.000000000000		

Randomized Complete Block (RCB) AOV For W Weed AMBEL Ambrosia artemisiifolia Common ragweed PLOT P 7/2/2014 CONTRO % 55 14 14 DA-C P 0 (Data Column 17)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	34900.000000			
Replicate	3	410.000000	136.666667	3.069	0.0447
Treatment	9	33287.500000	3698.611111	83.046	0.0001
Error	27	1202.500000	44.537037		

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Randomized Complete Block (RCB) AOV For W Weed AMBTR Ambrosia trifida Giant ragweed PLOT P 7/2/2014 CONTRO % 55 14 14 DA-C P 0 (Data Column 18)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	34805.975000			
Replicate	3	294.075000	98.025000	0.976	0.4186
Treatment	9	31800.225000	3533.358333	35.181	0.0001
Error	27	2711.675000	100.432407		

Randomized Complete Block (RCB) AOV For W Weed SETSS Setaria sp. Foxtail millet PLOT P 7/2/2014 CONTRO % 55 14 14 DA-C P 0 (Data Column 19)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	32304.775000			
Replicate	3	130.475000	43.491667	1.106	0.3639
Treatment	9	31112.525000	3456.947222	87.907	0.0001
Error	27	1061.775000	39.325000		

Randomized Complete Block (RCB) AOV For GLXMA BSOY Glycine max Soybean PLOT C 7/17/2014 PHYGEN % 70 29 29 DA-C P 0 (Data Column 20)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	0.000000000000			
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000
Treatment	9	0.000000000000	0.000000000000	0.000	1.0000
Error	27	0.000000000000	0.000000000000		

Randomized Complete Block (RCB) AOV For W Weed AMBEL Ambrosia artemisiifolia Common ragweed PLOT P 7/17/2014 CONTRO % 70 29 29 DA-C P 0 (Data Column 21)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	35297.500000			
Replicate	3	402.500000	134.166667	2.015	0.1355
Treatment	9	33097.500000	3677.500000	55.239	0.0001
Error	27	1797.500000	66.574074		

Randomized Complete Block (RCB) AOV For W Weed AMBTR Ambrosia trifida Giant ragweed PLOT P 7/17/2014 CONTRO % 70 29 29 DA-C P 0 (Data Column 22)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	38	45071.985597			
Replicate	3	2682.232510	894.077503	1.555	0.2240
Treatment	9	27443.179012	3049.242112	5.304	0.0004
Error	26	14946.574074	574.868234		

Randomized Complete Block (RCB) AOV For W Weed SETSS Setaria sp. Foxtail millet PLOT P 7/17/2014 CONTRO % 70 29 29 DA-C P 0 (Data Column 23)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	38	46730.833333			
Replicate	3	13055.833333	4351.944444	8.925	0.0003
Treatment	9	20997.500000	2333.055556	4.785	0.0008
Error	26	12677.500000	487.596154		

Randomized Complete Block (RCB) AOV For W Weed XANST Xanthium strumarium Heart-leaf cocklebur PLOT P 7/17/2014 CONTRO % 70 29 29 DA-C P 0 (Data Column 24)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	38	34150.000000			
Replicate	3	455.000000	151.666667	0.405	0.7509
Treatment	9	23950.000000	2661.111111	7.100	0.0001
Error	26	9745.000000	374.807692		

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

Pest Code
AMBTR, Ambrosia trifida, = US
ALLVI, Allium vineale, = US
AMBEL, Ambrosia artemisiifolia, = US
BROSS, Bromus sp., = US
SETSS, Setaria sp., = US
XANST, Xanthium strumarium, = US

Crop Code
GLXMA, BSOY, Glycine max, = US

Part Rated
PLOT = plot
P = Pest is Part Rated
C = Crop is Part Rated

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

Rating Unit
% = percent

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