

LIBERTY LINK SOYBEAN PRES WITH IGNITE

Trial ID: 09S-SEP-NTS-07 Protocol ID: 09S-SEP-NTS-07
 Location: SEPAC Study Director: Melissa Kruger/Paul Marquardt
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: David Lamore

General Trial Information

Study Director: Melissa Kruger/Paul Marquardt **Title:** Lab Tech VIII/Research Assoc.
Investigator: Dr. William G. Johnson **Title:** Associate Professor

Discipline: H herbicide
Trial Status: F one-year/final
Initiation Date: 5/5/09 **Planned Completion Date:** 7/14/09

Trial Location

City: Butleville
State/Prov.: Indiana
Postal Code: 47223-0216
Country: USA

Keywords: IGNITE, LIBERY LINK SOYBEAN, LL, SOYBEAN, NO-TILL, PRE

Objectives:

Compare and Contrast weed control with varying rates of Ignite

Personnel

Study Director: Melissa Kruger/Paul Marquardt **Title:** Lab Tech VIII/Research Assoc.
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** mmkruger@purdue.edu/pmarquar@purdue.edu
Phone No.: 765-494-4621
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Phone No.: 765-494-4656

Cooperator/Landowner

Cooperator: Southeastern-Purdue Ag Center **Role:** Cooperator
Organization: Purdue University
Address 1: 4425 E Co. Rd. 350 N
Phone No.: 1-812-458-6977
City: Butleville **Fax No.:** 1-812-458-6979
State/Prov: IN
Postal Code: 477223-021 **E-mail:** biehled@purdue.edu
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: LL **Description:** Liberty Link
BBCH Scale: BSOY **Planting Date:** 5/26/09
Planting Method: DIRDRI direct drilled **Rate, Unit:** 150000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 78 F
Soil Moisture: MOIST slightly wet **Emergence Date:** 5/31/09

Pest Description

Pest 1 Type: W **Code:** SENGL Senecio glabellus
Common Name: Cressleaf groundsel

Pest 2 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail

Pest 3 Type: W **Code:** ERICA Conyza canadensis

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Common Name: Canada horseweed**Pest 4 Type:** W **Code:** VENAL *Vernonia altissima*
Common Name: Tall ironweed**Pest 5 Type:** W **Code:** SENGL *Senecio glabellus*
Common Name: Cressleaf groundsel**Pest 6 Type:** W **Code:** RANAB *Ranunculus abortivus*
Common Name: Smallflower buttercup**Pest 7 Type:** W **Code:** TAROF *Taraxacum officinale*
Common Name: Common dandelion**Pest 8 Type:** W **Code:** POAAN *Poa annua*
Common Name: Annual bluegrass**Pest 9 Type:** W **Code:** CAPBP *Capsella bursa-pastoris*
Common Name: Shepherd's purse**Pest10 Type:** W **Code:** THLAR *Thlaspi arvense*
Common Name: Field Pennycress**Pest11 Type:** W **Code:** DIGSA *Digitaria sanguinalis*
Common Name: Large crabgrass**Pest12 Type:** W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass**Site and Design**

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 300 FT² **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: SEPAC Field U4-6
% OM: 1.8 **Texture:** SIL silt loam
pH: 5.6 **Soil Name:** Avonburg
CEC: 6.7

Analyzed By:

A&L Great Lakes Laboratories, Inc. Report#: F07320-0472

Additional Measured Elements

Element	Quantity	Unit
P	7	PPM
K	59	PPM
Mg	140	PPM
Ca	600	PPM

Moisture and Weather Conditions**Closest Weather Station:** On research farm **Distance, Unit:** 0.5 MI**Application Description**

	A	B	C	D
Application Date:	5/5/09	6/17/09	6/17/09	7/6/09
Time of Day:	10:15 AM	8:45 AM	8:45 AM	12:45 PM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLA	EAPOWE	MIPOWE	LAPOWE
Application Placement:	BROSFOL	BROFOL	BROFOL	BROFOL
Applied By:	PM MK	RH MK	RH MK	RH JM
Air Temperature, Unit:	64 F	69 F	69 F	83 F
% Relative Humidity:	67	89	89	62
Wind Velocity, Unit:	3 MPH	2.5 MPH	2.5 MPH	1 MPH
Wind Direction:	E	S	S	NW
Dew Presence (Y/N):	N no	Y yes	Y yes	N no
Soil Temperature, Unit:	60 F	72 F	72 F	80 F
Soil Moisture:	MOIST	MOIST	MOIST	WET
% Cloud Cover:	85	100	100	5

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	N/A	V1	V1	V5
Stage Minimum, Percent:		VC	VC	V5
Stage Maximum, Percent:		V1	V1	V6
Height, Unit:		6 IN	6 IN	12 IN
Height Minimum, Maximum:		1 8	1 8	8 16

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	SENGL W	SENGL W	SENGL W	SENGL W
Stage Majority, Percent:	FLOWER			
Height, Unit:	15 IN			
Height Minimum, Maximum:	6 24			
Density, Unit:	10 YD2			
Pest 2 Code, Type, Scale:	SETFA W	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		COTY		6 LF
Stage Minimum, Percent:		COTY		5 LF
Stage Maximum, Percent:		1 LF		8 LF
Height, Unit:		8 IN	8 IN	7 IN
Height Minimum, Maximum:		0 12	0 12	5 10
Density, Unit:		60 FT2	60 FT2	27 YD2
Pest 3 Code, Type, Scale:	ERICA W	ERICA W	ERICA W	ERICA W
Stage Majority, Percent:	COTY	COTY	COTY	BOLT
Stage Minimum, Percent:		BOLT	BOLT	
Height, Unit:	1 IN	9 IN	9 IN	6 IN
Height Minimum, Maximum:	0 2	1 18	1 18	4 8
Density, Unit:	13 YD2	27 YD2	27 YD2	5 YD2
Pest 4 Code, Type, Scale:	VENAL W	VENAL W	VENAL W	VENAL W
Stage Majority, Percent:	VEG	BOLT	BOLT	BOLT
Height, Unit:	10 IN	35 IN	25 IN	30 IN
Height Minimum, Maximum:	6 14	2 48	2 48	6 40

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Density, Unit:	1 YD2	10 YD2	10 YD2	5 YD2
Pest 5 Code, Type, Scale:	SENGL W	SENGL W	SENGL W	SENGL W
Stage Majority, Percent:	FLOWER			
Height, Unit:	24 IN			
Height Minimum, Maximum:	3 36			
Density, Unit:	13 YD2			
Pest 6 Code, Type, Scale:	RANAB W	RANAB W	RANAB W	RANAB W
Stage Majority, Percent:	ROSETT			
Stage Minimum, Percent:	COTY			
Stage Maximum, Percent:	FLOWER			
Height, Unit:	10 IN			
Height Minimum, Maximum:	0.5 12			
Density, Unit:	17 YD2			
Pest 7 Code, Type, Scale:	TAROF W	TAROF W	TAROF W	TAROF W
Stage Majority, Percent:	FLOWER	ROSETT	ROSETT	ROSETT
Stage Minimum, Percent:	VEG	COTY	COTY	
Stage Maximum, Percent:	SEEDSE	SEEDSE	SEEDSE	
Height, Unit:	20 IN	18 IN	18 IN	18 IN
Height Minimum, Maximum:	6 24	0 24	0 24	0 24
Density, Unit:	10 YD2	27 YD2	27 YD2	9 YD2
Pest 8 Code, Type, Scale:	POAAN W	POAAN W	POAAN W	POAAN W
Stage Majority, Percent:	FLOWER			
Height, Unit:	2 IN			
Height Minimum, Maximum:	1 4			
Density, Unit:	40 YD2			
Pest 9 Code, Type, Scale:	CAPBP W	CAPBP W	CAPBP W	CAPBP W
Stage Majority, Percent:	FLOWER			
Height, Unit:	6 IN			
Height Minimum, Maximum:	2 8			
Density, Unit:	3 YD2			
Pest10 Code, Type, Scale:	THLAR W	THLAR W	THLAR W	THLAR W
Stage Majority, Percent:	FLOWER			
Height, Unit:	16 IN			
Height Minimum, Maximum:	6 20			
Density, Unit:	3 YD2			
Pest11 Code, Type, Scale:	DIGSA W	DIGSA W	DIGSA W	DIGSA W
Stage Majority, Percent:				3 TILL
Stage Minimum, Percent:				2 TILL
Stage Maximum, Percent:				8 TILL
Height, Unit:				5 IN
Height Minimum, Maximum:				1 8
Density, Unit:				40 YD2
Pest12 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent:				5 LF
Stage Minimum, Percent:				4 LF
Stage Maximum, Percent:				10 LF
Height, Unit:				8 IN
Height Minimum, Maximum:				2 12
Density, Unit:				6 YD2

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 Backpack	CO2 Backpack	CO2 Backpack	CO2 Backpack
Equipment Type:	SPRBAC	SPRBAC	SPRBAC	SPRBAC
Operating Pressure, Unit:	17 PSI	17 PSI	17 PSI	17 PSI
Nozzle Type:	Flat Fan	Flat Fan	Flat Fan	Flat Fan
Nozzle Size:	XR11002	XR11002	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN	15 IN
Nozzles/Row:	6	6	6	6
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH
Carrier:	H2O	H2O	H2O	H2O
Water Hardness (ppm CaCO3):	150	150	150	150
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 Liters	1.8 Liters	1.8 Liters	1.8 Liters
Propellant:	CO2	CO2	CO2	CO2
Tank Mix (Y/N):	N no	N no	N no	N no

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERICA	ERICA	TAROF	TAROF
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Taraxacum officinale	Taraxacum officinale
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Common dandelion	Common dandelion
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/17/09	6/30/09	7/14/09	6/17/09	6/30/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	VC-V1	V3-V4	R1-R2	VC-V1	V3-V4
Crop Stage Minimum/Maximum	1-8"	8-16"	12-24"	1-8"	8-16"
Pest Stage Majority	BOLT	BOLT	BOLT	COTY-SEE	VEG-SEED
Pest Stage Minimum/Maximum	1-8"	0-30"	6-48"	0-24"	0-18"
Pest Density, Unit	27 YD2	27 YD2	27 YD2	27 YD2	27 YD2
Footnote Number					
Assessed By	MK&JM	MK	MK	MK&JM	MK
Rating Timing					
Days After First/Last Applic.	43 43	56 13	70 8	43 43	56 13
Trt-Eval Interval					
Plant-Eval Interval	22 DP-1	35 DP-1	49 DP-1	22 DP-1	35 DP-1
Days After Emergence	17 DE-	30 DE-	44 DE-	17 DE-	30 DE-
Number of Decimals					
Trt No.	1	4	7	2	5
Treatment Name	Untreated				
Rate	0.0	0.0	0.0	0.0	0.0
Unit	b	c	b	c	b
Appl Code					
1	Untreated				
2	Valor SX Ignite 280 Ammonium Sulfate Ignite 280 Ammonium Sulfate				
3	Valor SX Ignite 280 Ammonium Sulfate				
4	Authority First Ignite 280 Ammonium Sulfate Ignite 280 Ammonium Sulfate				
5	Authority First Ignite 280 Ammonium Sulfate				
6	Ignite 280 Ammonium Sulfate				

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERICA	ERICA	TAROF	TAROF
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Taraxacum officinale	Taraxacum officinale
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Common dandelion	Common dandelion
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/17/09	6/30/09	7/14/09	6/17/09	6/30/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	VC-V1	V3-V4	R1-R2	VC-V1	V3-V4
Crop Stage Minimum/Maximum	1-8"	8-16"	12-24"	1-8"	8-16"
Pest Stage Majority	BOLT	BOLT	BOLT	COTY-SEE	VEG-SEED
Pest Stage Minimum/Maximum	1-8"	0-30"	6-48"	0-24"	0-18"
Pest Density, Unit	27 YD2	27 YD2	27 YD2	27 YD2	27 YD2
Footnote Number					
Assessed By	MK&JM	MK	MK	MK&JM	MK
Rating Timing					
Days After First/Last Applic.	43 43	56 13	70 8	43 43	56 13
Trt-Eval Interval					
Plant-Eval Interval	22 DP-1	35 DP-1	49 DP-1	22 DP-1	35 DP-1
Days After Emergence	17 DE-	30 DE-	44 DE-	17 DE-	30 DE-
Number of Decimals					
Trt No.	1	4	7	2	5
Treatment Name					
Rate					
Unit					
Appl Code					
7 Ignite 280	0.4 lb ai/a	100.0 a	100.0 a		94.8 a
Ammonium Sulfate	8.5 lb ai/100 gal				
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
8 Canopy DF	0.164 lb ai/a	98.8 a	100.0 a	65.0 ab	97.8 a
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
9 Prefix	1.33 lb ai/a	73.5 a	99.5 b	53.8 ab	98.0 a
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
10 Valor XLT		100.0 a	100.0 a	88.8 a	96.5 a
Valor SX	0.056 lb ai/a				
Classic	0.0194 lb ai/a				
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
Ignite 280	0.4 lb ai/a				
Ammonium Sulfate	8.5 lb ai/100 gal				
11 Canopy EX		98.8 a	100.0 a	94.8 a	100.0 a
Classic	0.34 oz ai/a				
Express	0.1 oz ai/a				
Ignite	0.287 lb ai/a				
Classic	0.322 oz ai/a				
Harmony SG	0.026 oz ai/a				
Ammonium Sulfate	8.5 lb/100 gal				

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Pest Code	ERICA	ERICA	ERICA	TAROF	TAROF				
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Taraxacum officinale	Taraxacum officinale				
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Common dandelion	Common dandelion				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	6/17/09	6/30/09	7/14/09	6/17/09	6/30/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Sample Size, Unit									
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority	VC-V1	V3-V4	R1-R2	VC-V1	V3-V4				
Crop Stage Minimum/Maximum	1-8"	8-16"	12-24"	1-8"	8-16"				
Pest Stage Majority	BOLT	BOLT	BOLT	COTY-SEE	VEG-SEED				
Pest Stage Minimum/Maximum	1-8"	0-30"	6-48"	0-24"	0-18"				
Pest Density, Unit	27 YD2	27 YD2	27 YD2	27 YD2	27 YD2				
Footnote Number									
Assessed By	MK&JM	MK	MK	MK&JM	MK				
Rating Timing									
Days After First/Last Applic.	43 43	56 13	70 8	43 43	56 13				
Trt-Eval Interval									
Plant-Eval Interval	22 DP-1	35 DP-1	49 DP-1	22 DP-1	35 DP-1				
Days After Emergence	17 DE-	30 DE-	44 DE-	17 DE-	30 DE-				
Number of Decimals									
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	4	7	2	5
12	Envive			A	100.0 a	100.0 a	100.0 a	88.8 a	98.3 a
	Classic	0.32	oz ai/a	A					
	Harmony SG	0.1	oz ai/a	A					
	Valor SX	1	oz ai/a	A					
	Ignite 280	0.402	lb ai/a	C					
	Classic	0.0805	oz ai/a	C					
	Harmony SG	0.026	oz ai/a	C					
	Ammonium Sulfate	8.5	lb/100 gal	C					
13	Canopy DF	3	oz ai/a	A	99.3 a	100.0 a	100.0 a	88.5 a	100.0 a
	Ignite 280	0.402	lb ai/a	C					
	Classic	0.0805	oz ai/a	C					
	Harmony SG	0.026	oz ai/a	C					
	Ammonium Sulfate	8.5	lb/100 gal	C					
14	Ignite 280	0.402	lb ai/a	B		100.0 a	100.0 a		97.8 a
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	8.5	lb/100 gal	B					
15	Ignite 280	0.402	lb ai/a	B		100.0 a	100.0 a		97.0 a
	Classic	0.125	oz ai/a	B					
	Ammonium Sulfate	8.5	lb/100 gal	B					
LSD (P=.05)		18.83				0.28	0.30	26.23	3.09
Standard Deviation		13.04				0.19	0.21	18.16	2.16
CV		14.85				0.21	0.23	29.55	2.37
Bartlett's X2		76.482				0.061	0.0	27.139	19.665
P(Bartlett's X2)		0.001*				0.805	.	0.001*	0.05
Replicate F		1.034				1.638	1.000	4.240	1.705
Replicate Prob(F)		0.3915				0.1949	0.4023	0.0130	0.1805
Treatment F		21.368				71414.882	59917.076	10.563	545.805
Treatment Prob(F)		0.0001				0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Pest Type	W Weed	W Weed	W Weed	W Weed								
Pest Code	TAROF	SETFA	SETFA	SETFA								
Pest Scientific Name	Taraxacum offi>	Setaria faberi	Setaria faberi	Setaria faberi								
Pest Name	Common dandel>	Giant foxtail	Giant foxtail	Giant foxtail								
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA								
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max								
Crop Name	Soybean	Soybean	Soybean	Soybean								
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P								
Rating Date	7/14/09	6/17/09	6/30/09	7/14/09								
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO								
Rating Unit	%	%	%	%								
Sample Size, Unit												
Number of Subsamples	1	1	1	1								
Crop Stage Majority	R1-R2	VC-V1	V3-V4	R1-R2								
Crop Stage Minimum/Maximum	12-24"	1-8"	8-16"	12-24"								
Pest Stage Majority	VEG	COTY-1LF	TILLER	TILL-SEE								
Pest Stage Minimum/Maximum	2-24"	0-12"	0-18"	6-24"								
Pest Density, Unit	27 YD2	63 FT2	63 FT2	63 FT2								
Footnote Number												
Assessed By	MK	MK&JM	MK	MK								
Rating Timing												
Days After First/Last Applic.	70 8	43 43	56 13	70 8								
Trt-Eval Interval												
Plant-Eval Interval	49 DP-1	22 DP-1	35 DP-1	49 DP-1								
Days After Emergence	44 DE-	17 DE-	30 DE-	44 DE-								
Number of Decimals												
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	3	6	9				
1	Untreated	0.0	c		0.0	b	0.0	b	0.0	c		
2	Valor SX	0.064	lb ai/a	A	98.3	a	97.5	a	96.0	a	100.0	a
	Ignite 280	0.4	lb ai/a	C								
	Ammonium Sulfate	8.5	lb ai/100 gal	C								
	Ignite 280	0.4	lb ai/a	D								
	Ammonium Sulfate	8.5	lb ai/100 gal	D								
3	Valor SX	0.064	lb ai/a	A	71.3	a	96.3	a	96.8	a	98.3	ab
	Ignite 280	0.656	lb ai/a	C								
	Ammonium Sulfate	8.5	lb ai/100 gal	C								
4	Authority First	0.175	lb ai/a	A	97.0	a	89.3	a	89.3	a	100.0	a
	Ignite 280	0.4	lb ai/a	C								
	Ammonium Sulfate	8.5	lb ai/100 gal	C								
	Ignite 280	0.4	lb ai/a	D								
	Ammonium Sulfate	8.5	lb ai/100 gal	D								
5	Authority First	0.175	lb ai/a	A	80.3	a	89.3	a	97.8	a	99.5	a
	Ignite 280	0.656	lb ai/a	C								
	Ammonium Sulfate	8.5	lb ai/100 gal	C								
6	Ignite 280	0.656	lb ai/a	C	15.0	c			92.5	a	98.0	ab
	Ammonium Sulfate	8.5	lb ai/100 gal	C								

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Pest Type	W Weed	W Weed	W Weed	W Weed				
Pest Code	TAROF	SETFA	SETFA	SETFA				
Pest Scientific Name	Taraxacum offi>	Setaria faberi	Setaria faberi	Setaria faberi				
Pest Name	Common dandel>	Giant foxtail	Giant foxtail	Giant foxtail				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	7/14/09	6/17/09	6/30/09	7/14/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%				
Sample Size, Unit								
Number of Subsamples	1	1	1	1				
Crop Stage Majority	R1-R2	VC-V1	V3-V4	R1-R2				
Crop Stage Minimum/Maximum	12-24"	1-8"	8-16"	12-24"				
Pest Stage Majority	VEG	COTY-1LF	TILLER	TILL-SEE				
Pest Stage Minimum/Maximum	2-24"	0-12"	0-18"	6-24"				
Pest Density, Unit	27 YD2	63 FT2	63 FT2	63 FT2				
Footnote Number								
Assessed By	MK	MK&JM	MK	MK				
Rating Timing								
Days After First/Last Applic.	70 8	43 43	56 13	70 8				
Trt-Eval Interval								
Plant-Eval Interval	49 DP-1	22 DP-1	35 DP-1	49 DP-1				
Days After Emergence	44 DE-	17 DE-	30 DE-	44 DE-				
Number of Decimals								
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	3	6	9
7	Ignite 280	0.4	lb ai/a	B	97.8 a		90.5 a	99.8 a
	Ammonium Sulfate	8.5	lb ai/100 gal	B				
	Ignite 280	0.4	lb ai/a	D				
	Ammonium Sulfate	8.5	lb ai/100 gal	D				
8	Canopy DF	0.164	lb ai/a	A	98.0 a	93.5 a	95.8 a	100.0 a
	Ignite 280	0.4	lb ai/a	C				
	Ammonium Sulfate	8.5	lb ai/100 gal	C				
	Ignite 280	0.4	lb ai/a	D				
	Ammonium Sulfate	8.5	lb ai/100 gal	D				
9	Prefix	1.33	lb ai/a	A	97.5 a	96.5 a	95.0 a	100.0 a
	Ignite 280	0.4	lb ai/a	C				
	Ammonium Sulfate	8.5	lb ai/100 gal	C				
	Ignite 280	0.4	lb ai/a	D				
	Ammonium Sulfate	8.5	lb ai/100 gal	D				
10	Valor XLT			A	99.0 a	95.0 a	97.5 a	100.0 a
	Valor SX	0.056	lb ai/a	A				
	Classic	0.0194	lb ai/a	A				
	Ignite 280	0.4	lb ai/a	C				
	Ammonium Sulfate	8.5	lb ai/100 gal	C				
	Ignite 280	0.4	lb ai/a	D				
	Ammonium Sulfate	8.5	lb ai/100 gal	D				
11	Canopy EX			A	98.0 a	82.5 a	97.8 a	99.8 a
	Classic	0.34	oz ai/a	A				
	Express	0.1	oz ai/a	A				
	Ignite	0.287	lb ai/a	C				
	Classic	0.322	oz ai/a	C				
	Harmony SG	0.026	oz ai/a	C				
	Ammonium Sulfate	8.5	lb/100 gal	C				

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Pest Type	W Weed	W Weed	W Weed	W Weed				
Pest Code	TAROF	SETFA	SETFA	SETFA				
Pest Scientific Name	Taraxacum offi>	Setaria faberi	Setaria faberi	Setaria faberi				
Pest Name	Common dandel>	Giant foxtail	Giant foxtail	Giant foxtail				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	7/14/09	6/17/09	6/30/09	7/14/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%				
Sample Size, Unit								
Number of Subsamples	1	1	1	1				
Crop Stage Majority	R1-R2	VC-V1	V3-V4	R1-R2				
Crop Stage Minimum/Maximum	12-24"	1-8"	8-16"	12-24"				
Pest Stage Majority	VEG	COTY-1LF	TILLER	TILL-SEE				
Pest Stage Minimum/Maximum	2-24"	0-12"	0-18"	6-24"				
Pest Density, Unit	27 YD2	63 FT2	63 FT2	63 FT2				
Footnote Number								
Assessed By	MK	MK&JM	MK	MK				
Rating Timing								
Days After First/Last Applic.	70 8	43 43	56 13	70 8				
Trt-Eval Interval								
Plant-Eval Interval	49 DP-1	22 DP-1	35 DP-1	49 DP-1				
Days After Emergence	44 DE-	17 DE-	30 DE-	44 DE-				
Number of Decimals								
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	8	3	6	9
12	Enville			A	88.3 a	92.8 a	99.0 a	99.0 a
	Classic	0.32	oz ai/a	A				
	Harmony SG	0.1	oz ai/a	A				
	Valor SX	1	oz ai/a	A				
	Ignite 280	0.402	lb ai/a	C				
	Classic	0.0805	oz ai/a	C				
	Harmony SG	0.026	oz ai/a	C				
	Ammonium Sulfate	8.5	lb/100 gal	C				
13	Canopy DF	3	oz ai/a	A	90.5 a	87.5 a	99.0 a	99.3 a
	Ignite 280	0.402	lb ai/a	C				
	Classic	0.0805	oz ai/a	C				
	Harmony SG	0.026	oz ai/a	C				
	Ammonium Sulfate	8.5	lb/100 gal	C				
14	Ignite 280	0.402	lb ai/a	B	48.8 b		95.3 a	95.0 b
	Classic	0.0805	oz ai/a	B				
	Harmony SG	0.026	oz ai/a	B				
	Ammonium Sulfate	8.5	lb/100 gal	B				
15	Ignite 280	0.402	lb ai/a	B	41.3 b		87.5 a	97.5 ab
	Classic	0.125	oz ai/a	B				
	Ammonium Sulfate	8.5	lb/100 gal	B				
LSD (P=.05)		22.49				9.39		2.60
Standard Deviation		15.73				6.50		1.82
CV		21.06				7.78		1.97
Bartlett's X2		84.629				36.008		40.257
P(Bartlett's X2)		0.001*				0.001*		0.001*
Replicate F		0.220				1.236		3.358
Replicate Prob(F)		0.8817				0.3138		0.0276
Treatment F		17.533				74.704		788.960
Treatment Prob(F)		0.0001				0.0001		0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.