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Sharpen in combination with DuPont soybean herbicides.

Trial ID: 10S-THP-NTS-62 Protocol ID: 10S-THP-NTS-62
Location: Throckmorton Study Director: White/Marquardt
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact: DuPont - Helen Flanigan

General Trial Information

Study Director: White/Marquardt **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: E established
Initiation Date: 3-18-2010

Trial Location

City: Lafayette
State/Prov.: IN
Postal Code: 47909
Country: USA

Personnel

Study Director: White/Marquardt **Title:** Research Associate
Affiliation: Purdue University
Address: 915 W State Street
Location: West Lafayette, IN, USA
Postal Code: 47907 **E-mail:** mdwhite@purdue.edu
Phone No.: 765-494-0891

Investigator: Dr. Bill Johnson **Title:** Professor
Affiliation: Purdue University
Address: 915 W State Street
Location: West Lafayette, IN, USA
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Phone No.: 765-494-4656 **Mobile No.:** 765-404-9801

Cooperator/Landowner

Cooperator: Throckmorton Purdue Ag Center **Role:** Purdue Ag Center
Organization: Purdue University
Address 1: 8343 US 231 S
Phone No.: 765-538-3422
City: Lafayette **Fax No.:** 765-538-3423
State/Prov: IN
Postal Code: 47909 **E-mail:** jayyoung@purdue.edu
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow AG2939 **Description:** RR2
BBCH Scale: BSOY **Planting Date:** 5-6-2010
Row Spacing, Unit: 30 IN
Emergence Date: 5-17-2010

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Pest Description

Pest 1 Type: W **Code:** THLSS Thlaspi sp.
Common Name: Pennycress

Pest 2 Type: W **Code:** LACSE Lactuca serriola
Common Name: Prickly lettuce

Pest 3 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed

Pest 4 Type: W **Code:** GALAP Galium aparine
Common Name: Catchweed bedstraw

Pest 5 Type: W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion

Pest 6 Type: W **Code:** AMATA Amaranthus tamariscinus
Common Name: Common waterhemp

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

Pest 8 Type: W **Code:** COIMA Conium maculatum
Common Name: Poison hemlock

Pest 9 Type: W **Code:** GERCA Geranium carolinianum
Common Name: Carolina geranium

Site and Design

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

Field Prep./Maintenance:
Bulk glyphosate after last rating.

Soil Description

Description Name: TPAC - Field 5
% OM: 2.3 **Texture:** SIL silt loam
pH: 6.6 **Soil Name:** Longlois
CEC: 9.9

Application Description

	A	B	C
Application Date:	4-20-2010	5-6-2010	6-17-2010
Time of Day:		10:30 AM	9 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	A-PREPLA	PRE	BULK
Applied By:	TERRY		CB
Air Temperature, Unit:	55 F	61.5 F	82 F
% Relative Humidity:	57	45.2	71
Wind Velocity, Unit:	2 MPH	1.8 MPH	1 MPH
Wind Direction:	SE	NW	N
Dew Presence (Y/N):	Y yes	N no	Y yes
Soil Temperature, Unit:	55 F	63 F	75 F
Soil Moisture:	DRY		WET
% Cloud Cover:	80	0	50

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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:			V5

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	THLSS W	THLSS W	THLSS W
Height, Unit:		9 IN	
Height Minimum, Maximum:		8 10	
Density, Unit:		50 YD2	
Pest 2 Code, Type, Scale:	LACSE W	LACSE W	LACSE W
Height, Unit:		6 IN	2 IN
Height Minimum, Maximum:			1 3
Density, Unit:		18 YD2	10 YD2
Pest 3 Code, Type, Scale:	ERICA W	ERICA W	ERICA W
Height, Unit:		3 IN	
Density, Unit:		45 YD2	
Pest 4 Code, Type, Scale:	GALAP W	GALAP W	GALAP W
Height, Unit:		9 IN	
Density, Unit:		36 YD2	
Pest 5 Code, Type, Scale:	TAROF W	TAROF W	TAROF W
Height, Unit:		4 IN	
Density, Unit:		2	
Pest 6 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Height, Unit:			9 IN
Height Minimum, Maximum:			6 12
Density, Unit:			7 YD2
Pest 7 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Height, Unit:			3.5 IN
Height Minimum, Maximum:			1 6
Density, Unit:			30 YD2
Pest 8 Code, Type, Scale:	COIMA W	COIMA W	COIMA W
Height, Unit:			5 FT
Density, Unit:			1 YD2
Pest 9 Code, Type, Scale:	GERCA W	GERCA W	GERCA W
Height, Unit:			11 IN
Height Minimum, Maximum:			8 14
Density, Unit:			15 YD2

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Application Equipment

	A	B	C
Appl. Equipment:	CO2 Backpack	CO2 Backpack	CO2 BKPK
Equipment Type:			SPRBAC
Operating Pressure, Unit:	17 PSI	17 PSI	17 PSI
Nozzle Type:	Flat Fan	Flat Fan	FLAT FAN
Nozzle Size:	XR11002	XR11002	XR 110 02
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN
Nozzles/Row:	6	6	6
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	H2O	H2O	H20
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	C02
Tank Mix (Y/N):	N no	N no	N no

Date	By	Notes
7-8-2010	MH	Bulk Apllication of Powermax

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Sharpen in combination with DuPont soybean herbicides.

Trial ID: 10S-THP-NTS-62 Protocol ID: 10S-THP-NTS-62
Location: Throckmorton Study Director: White/Marquardt
Project ID: Investigator: Dr. Bill Johnson
Sponsor Contact: DuPont - Helen Flanigan

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				THLSS	STEME	LACSE	TAROF	ERICA	LAMAM
	Pest Scientific Name				Thlaspi sp.	Stellaria media	Lactuca serrio>	Taraxacum offi>	Conyza canaden>	Lamium amplexi>
	Pest Name				Pennycress	Common chickwe>	Prickly lettuce	Common dandeli>	Canada horsewe>	Henbit
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-6-2010	5-6-2010	5-6-2010	5-6-2010	5-6-2010	5-6-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				6"	6"	3"	9"	4"	7"
	Pest Density, Unit				50 YD2	18 YD2	45 YD2	36 YD2	2 YD2	5 YD2
	Assessed By				MW	MW	MW	MW	MW	MW
1	Untreated Check				0.0 b	0.0 c	0.0 c	0.0 c	0.0 b	0.0 b
2	Classic	0.34	oz ai/a	A	74.8 a	65.0 b	73.8 b	65.0 b	86.8 a	47.3 ab
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
3	Classic	0.34	oz ai/a	A	99.0 a	99.0 a	99.0 a	94.5 a	99.0 a	99.0 a
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
4	Canopy	3	oz ai/a	A	99.0 a	98.0 a	98.5 a	90.8 a	99.0 a	99.0 a
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
5	Canopy	3	oz ai/a	A	99.0 a	99.0 a	96.8 a	99.0 a	99.0 a	99.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
6	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	99.0 a	99.0 a	98.0 a	86.0 a	99.0 a	99.0 a
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				THLSS	STEME	LACSE	TAROF	ERICA	LAMAM
	Pest Scientific Name				Thlaspi sp.	Stellaria media	Lactuca serrio>	Taraxacum offi>	Conyza canaden>	Lamium amplexi>
	Pest Name				Pennycress	Common chickwe>	Prickly lettuce	Common dandeli>	Canada horsewe>	Henbit
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-6-2010	5-6-2010	5-6-2010	5-6-2010	5-6-2010	5-6-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				6"	6"	3"	9"	4"	7"
	Pest Density, Unit				50 YD2	18 YD2	45 YD2	36 YD2	2 YD2	5 YD2
	Assessed By				MW	MW	MW	MW	MW	MW
7	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	99.0 a	99.0 a	98.5 a	94.3 a	99.0 a	99.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
8	Sharpen 2.85 SC	0.0223	lb ai/a	A	99.0 a	98.5 a	99.0 a	88.5 a	98.0 a	99.0 a
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
9	Canopy	3	oz ai/a	B	24.8 b	0.0 c	0.0 c	0.0 c	24.8 b	49.5 ab
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
10	Synchrony XP (28.4 WG)	0.284	oz ai/a	B	0.0 b	0.0 c	0.0 c	0.0 c	0.0 b	74.3 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
11	Sharpen 2.85 SC	0.0223	lb ai/a	B	0.0 b	0.0 c	0.0 c	0.0 c	24.8 b	74.3 a
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
12	Untreated Check				0.0 b	0.0 c	0.0 c	0.0 c	0.0 b	0.0 b
	LSD (P=.05)				22.14	8.63	5.82	11.25	31.72	40.82
	Standard Deviation				15.34	5.98	4.03	7.79	21.97	28.27
	CV				26.54	10.91	7.29	15.13	36.15	40.43
	Bartlett's X2				2.927	21.944	24.532	1.644	15.995	0.462
	P(Bartlett's X2)				0.087	0.001*	0.001*	0.896	0.001*	0.927
	Replicate F				0.624	1.265	0.227	0.677	0.406	1.039
	Replicate Prob(F)				0.6047	0.3025	0.8767	0.5726	0.7494	0.3880
	Treatment F				38.541	271.759	597.836	140.693	17.362	7.196
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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.

Column 1: Weed or volunteer crop; US; EFF; percent; 6"; per square yard; MW
Column 2: Weed or volunteer crop; US; EFF; percent; 6"; per square yard; MW
Column 3: Weed or volunteer crop; US; EFF; percent; 3"; per square yard; MW
Column 4: Weed or volunteer crop; US; EFF; percent; 9"; per square yard; MW
Column 5: Weed or volunteer crop; US; EFF; percent; 4"; per square yard; MW

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	7	8	9	10	11	12
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				GALAP	BROTE	THLSS	ERICA	GERCA	STEME
	Pest Scientific Name				Galium aparine	Bromus tectorum	Thlaspi sp.	Conyza canaden>	Geranium carol>	Stellaria media
	Pest Name				Catchweed beds>	Downy brome	Pennycress	Canada horsewe>	Carolina geran>	Common chickwe>
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-6-2010	5-6-2010	5-13-2010	5-13-2010	5-13-2010	5-13-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				8"	13"	6-15"	1-12"	6-10"	3-8"
	Pest Density, Unit				10 YD2	70 YD2	15 YD2	14.5YD2	17 YD2	10.5YD2
	Assessed By				MW	MW	RT/RH	RT/RH	RT/RH	RY/RH
1	Untreated Check				0.0 b	0.0 c	0.0 d	0.0 b	0.0 b	0.0 c
2	Classic	0.34	oz ai/a	A	99.0 a	52.3 abc	98.8 a	96.0 a	100.0 a	72.0 b
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
3	Classic	0.34	oz ai/a	A	99.0 a	94.3 a	100.0 a	99.8 a	98.8 a	100.0 a
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
4	Canopy	3	oz ai/a	A	99.0 a	94.3 a	100.0 a	99.8 a	100.0 a	100.0 a
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
5	Canopy	3	oz ai/a	A	99.0 a	93.8 a	100.0 a	98.8 a	98.8 a	100.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
6	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	99.0 a	99.3 a	100.0 a	98.8 a	100.0 a	100.0 a
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	7	8	9	10	11	12
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				GALAP	BROTE	THLSS	ERICA	GERCA	STEME
	Pest Scientific Name				Galium aparine	Bromus tectorum	Thlaspi sp.	Conyza canaden>	Geranium carol>	Stellaria media
	Pest Name				Catchweed beds>	Downy brome	Pennycress	Canada horsewe>	Carolina geran>	Common chickwe>
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-6-2010	5-6-2010	5-13-2010	5-13-2010	5-13-2010	5-13-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				8"	13"	6-15"	1-12"	6-10"	3-8"
	Pest Density, Unit				10 YD2	70 YD2	15 YD2	14.5YD2	17 YD2	10.5YD2
	Assessed By				MW	MW	RT/RH	RT/RH	RT/RH	RY/RH
7	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	99.0 a	95.5 a	100.0 a	98.3 a	98.8 a	100.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
8	Sharpen 2.85 SC	0.0223	lb ai/a	A	99.0 a	95.5 a	100.0 a	97.5 a	93.0 a	100.0 a
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
9	Canopy	3	oz ai/a	B	24.8 b	24.8 bc	73.3 c	100.0 a	90.0 a	97.3 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
10	Synchrony XP (28.4 WG)	0.284	oz ai/a	B	49.5 ab	70.8 ab	70.0 c	98.3 a	100.0 a	97.3 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
11	Sharpen 2.85 SC	0.0223	lb ai/a	B	24.8 b	24.8 bc	85.3 b	100.0 a	100.0 a	97.5 a
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
12	Untreated Check				0.0 b	0.0 c	0.0 d	0.0 b	0.0 b	0.0 c
	LSD (P=.05)				38.01	36.96	6.45	3.83	8.87	5.89
	Standard Deviation				26.32	25.60	4.47	2.65	6.14	4.08
	CV				39.89	41.23	5.78	3.22	7.53	5.08
	Bartlett's X2				0.083	32.257	4.987	26.695	20.464	6.169
	P(Bartlett's X2)				0.959	0.001*	0.173	0.001*	0.001*	0.104
	Replicate F				0.786	4.820	1.776	1.977	2.463	2.694
	Replicate Prob(F)				0.5105	0.0072	0.1709	0.1366	0.0797	0.0619
	Treatment F				10.500	9.630	285.133	841.167	155.067	352.777
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13	14	15	16	17	18
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				LACSE	GALAP	STEME	ERICA	THLSS	TAROF
	Pest Scientific Name				Lactuca serrio>	Galium aparine	Stellaria media	Conyza canaden>	Thlaspi sp.	Taraxacum offi>
	Pest Name				Prickly lettuce	Catchweed beds>	Common chickwe>	Canada horsewe>	Pennycress	Common dandeli>
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-20-2010	5-20-2010	5-20-2010	5-20-2010	5-20-2010	5-20-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				8"	18"	6"	6"	10"	8"
	Pest Density, Unit				5 YD2	5 YD2	20 YD2	4 YD2	12 YD2	2 YD2
	Assessed By				MW	MW	MW	MW	MW	MW
1	Untreated Check				0.0 b	0.0 b	0.0 c	0.0 b	0.0 c	0.0 c
2	Classic	0.34	oz ai/a	A	88.5 a	99.0 a	40.0 b	81.0 a	95.8 ab	89.3 a
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
3	Classic	0.34	oz ai/a	A	99.0 a	99.0 a	99.0 a	90.0 a	99.0 a	99.0 a
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
4	Canopy	3	oz ai/a	A	93.5 a	99.0 a	99.0 a	98.0 a	99.0 a	87.3 a
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
5	Canopy	3	oz ai/a	A	89.3 a	99.0 a	99.0 a	88.3 a	99.0 a	89.3 a
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
6	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	98.0 a	99.0 a	99.0 a	94.5 a	99.0 a	96.8 a
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13	14	15	16	17	18
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				LACSE	GALAP	STEME	ERICA	THLSS	TAROF
	Pest Scientific Name				Lactuca serrio>	Galium aparine	Stellaria media	Conyza canaden>	Thlaspi sp.	Taraxacum offi>
	Pest Name				Prickly lettuce	Catchweed beds>	Common chickwe>	Canada horsewe>	Pennycress	Common dandeli>
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-20-2010	5-20-2010	5-20-2010	5-20-2010	5-20-2010	5-20-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				8"	18"	6"	6"	10"	8"
	Pest Density, Unit				5 YD2	5 YD2	20 YD2	4 YD2	12 YD2	2 YD2
	Assessed By				MW	MW	MW	MW	MW	MW
7	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	99.0 a	99.0 a	99.0 a	86.0 a	99.0 a	93.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
8	Sharpen 2.85 SC	0.0223	lb ai/a	A	99.0 a	99.0 a	99.0 a	89.5 a	99.0 a	42.5 b
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
9	Canopy	3	oz ai/a	B	99.0 a	95.5 a	99.0 a	99.0 a	89.8 b	98.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
10	Synchrony XP (28.4 WG)	0.284	oz ai/a	B	96.8 a	99.0 a	99.0 a	99.0 a	91.0 ab	99.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
11	Sharpen 2.85 SC	0.0223	lb ai/a	B	99.0 a	95.5 a	99.0 a	99.0 a	94.5 ab	99.0 a
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
12	Untreated Check				0.0 b	0.0 b	0.0 c	0.0 b	0.0 c	0.0 c
	LSD (P=.05)				9.16	3.93	11.79	10.85	5.04	19.64
	Standard Deviation				6.34	2.72	8.16	7.52	3.49	13.60
	CV				7.92	3.33	10.52	9.76	4.34	18.28
	Bartlett's X2				15.66	0.0	0.0	12.535	0.89	21.037
	P(Bartlett's X2)				0.004*	.	.	0.051	0.828	0.002*
	Replicate F				1.152	2.200	1.000	1.410	0.471	1.180
	Replicate Prob(F)				0.3426	0.1066	0.4051	0.2573	0.7049	0.3321
	Treatment F				140.473	789.767	95.885	94.038	467.590	31.269
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	19	20	21	22	23	24
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				BROTE	GERCA	SETFA	GERCA	LACSE	ERICA
	Pest Scientific Name				Bromus tectorum	Geranium carol>	Setaria faberi	Geranium carol>	Lactuca serrio>	Conyza canaden>
	Pest Name				Downy brome	Carolina geran>	Giant foxtail	Carolina geran>	Prickly lettuce	Canada horsewe>
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-20-2010	5-20-2010	6-4-2010	6-4-2010	6-4-2010	6-4-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				18"	10"	3"	12"	14"	10"
	Pest Density, Unit				40 YD2	60 YD2	150 YD2	50 YD2	3 YD2	8 YD2
	Assessed By				MW	MW	MW	MW	MW	MW
1	Untreated Check				0.0 c	0.0 c	0.0 c	0.0 c	0.0 b	0.0 f
2	Classic	0.34	oz ai/a	A	48.8 b	99.0 a	51.3 b	99.0 a	99.0 a	30.0 e
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
3	Classic	0.34	oz ai/a	A	98.0 a	96.8 a	70.0 ab	95.5 a	94.3 a	67.5 bcd
	Harmony SG (50 SG)	0.1	oz ai/a	A						
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
4	Canopy	3	oz ai/a	A	96.8 a	98.0 a	65.0 ab	99.0 a	94.3 a	76.0 abc
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
5	Canopy	3	oz ai/a	A	96.8 a	95.5 a	67.5 ab	91.8 a	77.0 a	81.0 ab
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
6	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	99.0 a	99.0 a	45.0 b	99.0 a	99.0 a	50.0 d
	2,4-D Ester	0.5	lb ae/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	19	20	21	22	23	24
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				BROTE	GERCA	SETFA	GERCA	LACSE	ERICA
	Pest Scientific Name				Bromus tectorum	Geranium carol>	Setaria faberi	Geranium carol>	Lactuca serrio>	Conyza canaden>
	Pest Name				Downy brome	Carolina geran>	Giant foxtail	Carolina geran>	Prickly lettuce	Canada horsewe>
	Crop Code									
	BBCH Scale									
	Crop Scientific Name									
	Crop Name									
	Crop Variety									
	Description									
	Rating Date				5-20-2010	5-20-2010	6-4-2010	6-4-2010	6-4-2010	6-4-2010
	Rating Type				EFF	EFF	EFF	EFF	EFF	EFF
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Crop Stage Majority									
	Pest Stage Majority				18"	10"	3"	12"	14"	10"
	Pest Density, Unit				40 YD2	60 YD2	150 YD2	50 YD2	3 YD2	8 YD2
	Assessed By				MW	MW	MW	MW	MW	MW
7	Synchrony XP (28.4 WG)	0.284	oz ai/a	A	94.3 a	93.3 a	57.5 ab	87.0 ab	89.3 a	55.0 cd
	Sharpen 2.85 SC	0.0223	lb ai/a	A						
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
8	Sharpen 2.85 SC	0.0223	lb ai/a	A	98.0 a	82.0 b	5.0 c	74.5 b	82.0 a	89.5 ab
	Abundit (3 SL)	0.75	lb ae/a	A						
	COC	1	% v/v	A						
	AMS - Liquid	17	lb ai/100 gal	A						
9	Canopy	3	oz ai/a	B	83.5 a	95.8 a	85.0 a	96.8 a	93.3 a	99.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
10	Synchrony XP (28.4 WG)	0.284	oz ai/a	B	90.8 a	99.0 a	85.0 a	99.0 a	99.0 a	99.0 a
	Sharpen 2.85 SC	0.0223	lb ai/a	B						
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
11	Sharpen 2.85 SC	0.0223	lb ai/a	B	96.8 a	99.0 a	68.8 ab	99.0 a	95.5 a	99.0 a
	Abundit (3 SL)	0.75	lb ae/a	B						
	COC	1	% v/v	B						
	AMS - Liquid	17	lb ai/100 gal	B						
12	Untreated Check				0.0 c	0.0 c	0.0 c	0.0 c	0.0 b	0.0 f
	LSD (P=.05)				16.76	8.82	20.84	14.06	17.41	17.82
	Standard Deviation				11.61	6.11	14.43	9.73	12.06	12.34
	CV				15.44	7.66	28.87	12.42	15.69	19.85
	Bartlett's X2				40.158	16.949	23.013	10.505	9.398	5.784
	P(Bartlett's X2)				0.001*	0.005*	0.006*	0.033*	0.152	0.328
	Replicate F				2.153	3.503	1.940	3.300	0.841	0.690
	Replicate Prob(F)				0.1123	0.0261	0.1423	0.0323	0.4810	0.5647
	Treatment F				42.318	151.044	18.922	58.754	36.724	34.282
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Column 6: Weed or volunteer crop; US; EFF; percent; 7"; per square yard; MW
Column 7: Weed or volunteer crop; US; EFF; percent; 8"; per square yard; MW
Column 8: Weed or volunteer crop; US; EFF; percent; 13"; per square yard; MW
Column 9: Weed or volunteer crop; US; EFF; percent; 6-15"; per square yard; RT/RH
Column 10: Weed or volunteer crop; US; EFF; percent; 1-12"; per square yard; RT/RH
Column 11: Weed or volunteer crop; US; EFF; percent; 6-10"; per square yard; RT/RH
Column 12: Weed or volunteer crop; US; EFF; percent; 3-8"; per square yard; RY/RH
Column 13: Weed or volunteer crop; US; EFF; percent; 8"; per square yard; MW
Column 14: Weed or volunteer crop; US; EFF; percent; 18"; per square yard; MW
Column 15: Weed or volunteer crop; US; EFF; percent; 6"; per square yard; MW
Column 16: Weed or volunteer crop; US; EFF; percent; 6"; per square yard; MW
Column 17: Weed or volunteer crop; US; EFF; percent; 10"; per square yard; MW
Column 18: Weed or volunteer crop; US; EFF; percent; 8"; per square yard; MW
Column 19: Weed or volunteer crop; US; EFF; percent; 18"; per square yard; MW
Column 20: Weed or volunteer crop; US; EFF; percent; 10"; per square yard; MW
Column 21: Weed or volunteer crop; US; EFF; percent; 3"; per square yard; MW
Column 22: Weed or volunteer crop; US; EFF; percent; 12"; per square yard; MW
Column 23: Weed or volunteer crop; US; EFF; percent; 14"; per square yard; MW
Column 24: Weed or volunteer crop; US; EFF; percent; 10"; per square yard; MW