

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

General Trial Information

Study Director: Joey Heneghan **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Initiation Date: May-13-2015

Trial Location

City: CORTLAND **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47274

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Joey Heneghan **Title:** Research Associate
Organization: Purdue University
Address: 915 W State St
City+State/Prov: West Lafayette, IN **Mobile No.:** 317 691 4347
Postal Code: 47907 **E-mail:** jhenegh@purdue.edu
Country: USA United States

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

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: 313NL BECKS **BBCH Scale:** BSOY
Seed Shape: ROUND **Planting Date:** May-28-2015
Planting Rate, Unit: 145000 S/A **Planting Method:** PLANTD planted
Depth, Unit: 1.75 IN **Planting Equipment:** PP Plot Planter
Row Spacing, Unit: 30 IN **Emergence Date:** Jun-3-2015
Soil Temperature, Unit: 68 F **Harvested Width, Unit:** 10 FT
Soil Moisture: SLIDRY slightly dry **Harvested Length, Unit:** 25 FT

Pest Description

Pest 1 Type: W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **Treatments:** 16
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

Description Name: SOY SOUTH
% Sand: 46.6 **% OM:** 1.6 **Texture:** LOAM
% Silt: 35.6 **pH:** 6.6
% Clay: 17.8 **CEC:** 9

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Application Description

	A	B	C	D
Application Date:	May-13-2015	May-19-2015	May-28-2015	Jun-24-2015
Appl. Start Time:	9:20AM	8:30AM	8:30AM	12:30PM
Appl. Stop Time:	9:30 AM	8:45 AM	9:15 AM	1:00 PM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	A	B	C	D
Application Placement:	BROADC	BROADC	BROADC	VROADC
Applied By:	LEGLEITER	HENEGHAN	HENEGHAN	HENEGHAN
Air Temperature, Unit:	52 F	57 F	69 F	79 F
% Relative Humidity:	66	63	92	41
Wind Velocity, Unit:	6 MPH	4 MPH	2 MPH	2 MPH
Wind Direction:	N	NW	NW	NE
Dew Presence (Y/N):	N no	N no	N no	N no
Soil Temperature, Unit:	64 F	66 F	68 F	84 F
% Cloud Cover:	0	0	100	30

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
Stage Majority, Percent:				V3 80
Stage Minimum, Percent:				V2 20
Height, Unit:				6 IN
Height Minimum, Maximum:				4 6

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ERICA W	ERICA W	ERICA W	ERICA W
Height, Unit:	6 IN	10 IN	12 IN	12 IN
Height Minimum, Maximum:	1 8	2 16	2 18	1 28
Density, Unit:	50 YD2	100 YD2	150 YD2	40 YD2

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 BACKPACK	CO2 BACKPACK	CO2 BP	CO2 BP
Operation Pressure, Unit:	19 PSI	18 PSI	19 PSI	18 PSI
Nozzle Type:	10002XR	10002XR	10002XR	10002XR
Nozzle Size:	02	02	02	02
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN	15 IN
Boom Length, Unit:	10 FT	10 FT	10 FT	10 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
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

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Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Reps: 4 Appl Code: A Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
1	SHARPEN	2.85	LB/GAL	CS	1 fl oz/a		A	0.9375 ml/mx	101	210	408	503
	MISO ULTRA	100	%	L	1 % v/v		A	18.0 ml/mx				
	N-PAK - AMS	3.4	LBA/GAL	SL	2.5 % v/v	14 Day P	A	45.0 ml/mx				
2	SENCOR	75	%	WG	5 oz/a		A	4.493 g/mx	102	301	406	410
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		A	15.0 ml/mx				
	AUTHORITY XL	70	%	DF	4 oz/a		A	3.595 g/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	14	A	18.0 ml/mx				

Reps: 4 Appl Code: B Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
1	SENCOR	75	%	WG	5 oz/a		B	4.493 g/mx	101	210	408	503
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		B	15.0 ml/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	7 Day Pr	B	18.0 ml/mx				
3	AIM	2	LB/GAL	EC	1 fl oz/a		B	0.9375 ml/mx	103	303	407	505
	SENCOR	75	%	WG	5 oz/a		B	4.493 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		B	15.0 ml/mx				
	AUTHORITY XL	70	%	DF	4 oz/a		B	3.595 g/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	7	B	18.0 ml/mx				
5	AIM	2	LB/GAL	EC	1 fl oz/a		B	0.9375 ml/mx	105	204	310	509
	SENCOR	75	%	WG	5 oz/a		B	4.493 g/mx				
	GRAMOXONE SL	2	LBAE/GAL	SL	32 fl oz/a		B	30.0 ml/mx				
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		B	15.0 ml/mx				
	AUTHORITY XL	70	%	DF	4 oz/a		B	3.595 g/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	7	B	18.0 ml/mx				
6	AIM	2	LB/GAL	EC	1 fl oz/a		B	0.9375 ml/mx	106	207	308	512
	SENCOR	75	%	WG	5 oz/a		B	4.493 g/mx				
	GRAMOXONE SL	2	LBAE/GAL	SL	48 fl oz/a		B	45.0 ml/mx				
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		B	15.0 ml/mx				
	AUTHORITY XL	70	%	DF	4 oz/a		B	3.595 g/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	7	B	18.0 ml/mx				
7	AIM	2	LB/GAL	EC	1 fl oz/a		B	0.9375 ml/mx	107	212	309	511
	GRAMOXONE SL	2	LBAE/GAL	SL	32 fl oz/a		B	30.0 ml/mx				
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		B	15.0 ml/mx				
	AUTHORITY MTZ	45	%	WG	14 oz/a		B	12.58 g/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	7	B	18.0 ml/mx				
8	AIM	2	LB/GAL	EC	1 fl oz/a		B	0.9375 ml/mx	108	302	312	510
	GRAMOXONE SL	2	LBAE/GAL	SL	48 fl oz/a		B	45.0 ml/mx				
	2,4-D LV4	4	LBAE/GAL	L	16 fl oz/a		B	15.0 ml/mx				
	AUTHORITY MTZ	45	%	WG	14 oz/a		B	12.58 g/mx				
	PRIME OIL - COC	99.47	%	L	1 % v/v	7	B	18.0 ml/mx				

Reps: 4 Appl Code: C Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
1	AUTHORITY XL	70	%	DF	4 oz/a		C	3.595 g/mx	101	210	408	503
	PRIME OIL - COC	99.47	%	L	1 % v/v	PRE	C	18.0 ml/mx				
2	SHARPEN	2.85	LB/GAL	CS	1 fl oz/a		C	0.9375 ml/mx	102	301	406	410
	MISO ULTRA	100	%	L	1 % v/v		C	18.0 ml/mx				
	N-PAK - AMS	3.4	LBA/GAL	SL	2.5 % v/v	PRE	C	45.0 ml/mx				

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 Sponsor Contact: J. Reed

Reps: 4 Appl Code: C Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trit No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep			
									1	2	3	4
4	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	104	206	311	506
	SENCOR	75 %		WG	5 oz/a		C	4.493 g/mx				
	AUTHORITY XL	70 %		DF	4 oz/a		C	3.595 g/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
9	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	109	208	405	508
	SENCOR	75 %		WG	5 oz/a		C	4.493 g/mx				
	GRAMOXONE SL	2 LBAE/GAL		SL	48 fl oz/a		C	45.0 ml/mx				
	AUTHORITY XL	70 %		DF	4 oz/a		C	3.595 g/mx				
10	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	110	205	404	504
	GRAMOXONE SL	2 LBAE/GAL		SL	48 fl oz/a		C	45.0 ml/mx				
	AUTHORITY MTZ	45 %		WG	14 oz/a		C	12.58 g/mx				
11	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	111	209	401	502
	SENCOR	75 %		WG	5 oz/a		C	4.493 g/mx				
	BUTYRAC 200	2 LB/GAL		EC	14 fl oz/a		C	13.12 ml/mx				
12	AUTHORITY XL	70 %		DF	4 oz/a		C	3.595 g/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v		C	4.5 ml/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	112	213	307	413
13	BUTYRAC 200	2 LB/GAL		EC	14 fl oz/a		C	13.12 ml/mx				
	AUTHORITY MTZ	45 %		WG	14 oz/a		C	12.58 g/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v		C	4.5 ml/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
14	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	113	306	402	411
	LIBERTY 280 SL	2.34 LB/GAL		SL	29 fl oz/a		C	27.19 ml/mx				
	AUTHORITY MTZ	45 %		WG	14 oz/a		C	12.58 g/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
15	N-PAK - AMS	3.4 LBA/GAL		SL	5 % v/v	PRE	C	89.99 ml/mx				
	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	201	211	409	501
	BUTYRAC 200	2 LB/GAL		EC	14 fl oz/a		C	13.12 ml/mx				
	LIBERTY 280 SL	2.34 LB/GAL		SL	29 fl oz/a		C	27.19 ml/mx				
16	AUTHORITY MTZ	45 %		WG	14 oz/a		C	12.58 g/mx				
	ACTIVATOR 90 - NIS	90 %		L	0.25 % v/v		C	4.5 ml/mx				
	PRIME OIL - COC	99.47 %		L	1 % v/v	PRE	C	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL		SL	5 % v/v	PRE	C	89.99 ml/mx				
17	AIM	2 LB/GAL		EC	1 fl oz/a		C	0.9375 ml/mx	202	304	403	412
	SHARPEN	2.85 LB/GAL		CS	1 fl oz/a		C	0.9375 ml/mx				
	LIBERTY 280 SL	2.34 LB/GAL		SL	29 fl oz/a		C	27.19 ml/mx				
	AUTHORITY MTZ	45 %		WG	14 oz/a		C	12.58 g/mx				
18	MISO ULTRA	100 %		L	1 % v/v		C	18.0 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL		SL	5 % v/v	PRE	C	89.99 ml/mx				

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 Sponsor Contact: J. Reed

Reps: 4 Appl Code: D Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 PSOT	D	27.19 ml/mx 89.99 ml/mx	101	210	408	503
2	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	102	301	406	410
3	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	103	303	407	505
4	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	104	206	311	506
5	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	105	204	310	509
6	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	106	207	308	512
7	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	107	212	309	511
8	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	108	302	312	510
9	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	109	208	405	508
10	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	110	205	404	504
11	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	111	209	401	502
12	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	112	213	307	413
13	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	113	306	402	411
14	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	201	211	409	501
15	LIBERTY 280 SL N-PAK - AMS	2.34 3.4	LB/GAL LBA/GAL	SL SL	29 fl oz/a 5 % v/v	 POST	D	27.19 ml/mx 89.99 ml/mx	202	304	403	412

Reps: 4 Appl Code: _ Plots: 10 by 30 feet
 Spray vol: 15 GAL/AC Mix Size: 1.8 liters (calculated mix size 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Stage	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
16	Untreated Check								203	305	313	507

Sort Order: Application Code, 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
3.516	ml	SHARPEN	2.85	CS	
67.493	ml	MSO ULTRA	100	L	
2,137.268	ml	N-PAK - AMS	3.4	SL	
44.935	g	SENCOR	75	WG	
131.250	ml	2,4-D LV4	4	L	
337.463	ml	PRIME OIL - COC	99.47	L	
35.948	g	AUTHORITY XL	70	DF	
611.718	ml	LIBERTY 280 SL	2.34	SL	
15.234	ml	AIM	2	EC	
300.000	ml	GRAMOXONE SL	2	SL	
110.090	g	AUTHORITY MTZ	45	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
49.219	ml	BUTYRAC 200	2	EC	
16.873	ml	ACTIVATOR 90 - NIS	90	L	

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

* Product amount calculations increased 25 % for overage adjustment.

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

Pest Type	W Weed		W Weed	W Weed	
Pest Code	ERICA		ERICA	ERICA	
Pest Scientific Name	Conyza canadensis		Conyza canadensis	Conyza canadensis	
Pest Name	Canada horseweed		Canada horseweed	Canada horseweed	
Crop Code	GLXMA		GLXMA	GLXMA	
BBCH Scale	BSOY		BSOY	BSOY	
Crop Scientific Name	Glycine max		Glycine max	Glycine max	
Crop Name	Soybean		Soybean	Soybean	
Part Rated	PLOT -		PLOT -	PLOT -	
Rating Date	May-28-2015		Jun-3-2015	Jun-3-2015	
Rating Type	CONTRO		PHYGEN	CONTRO	
Rating Unit	%		%	%	
Number of Subsamples	1		1	1	
Assessed By	HENEGHAN		HENEGHAN	HENEGHAN	
Rating Timing	ATPLANTING		7DAC	14DAC	
Days After First/Last Applic.	15 9		21 6	21 6	
Trt-Eval Interval	0 DA-C		6 DA-C	6 DA-C	
Plant-Eval Interval	0 DP-1		6 DP-1	6 DP-1	
Days After Emergence	-6 DE-1		0 DE-1	0 DE-1	
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	1	2	3
1 SHARPEN	1 fl oz/a	A 101	85.0	0.0	95.0
MSO ULTRA	1 % v/v	A 210	95.0	0.0	100.0
N-PAK - AMS	2.5 % v/v	A 408	95.0	0.0	95.0
SENCOR	5 oz/a	B 503	95.0	0.0	100.0
2,4-D LV4	16 fl oz/a	B			
PRIME OIL - COC	1 % v/v	B			
AUTHORITY XL	4 oz/a	C			
PRIME OIL - COC	1 % v/v	C			
LIBERTY 280 SL	29 fl oz/a	D			
N-PAK - AMS	5 % v/v	D			
Mean =			92.5	0.0	97.5
2 SENCOR	5 oz/a	A 102	50.0	0.0	90.0
2,4-D LV4	16 fl oz/a	A 301	45.0	0.0	90.0
AUTHORITY XL	4 oz/a	A 406	85.0	0.0	90.0
PRIME OIL - COC	1 % v/v	A 410	80.0	0.0	100.0
SHARPEN	1 fl oz/a	C			
MSO ULTRA	1 % v/v	C			
N-PAK - AMS	2.5 % v/v	C			
LIBERTY 280 SL	29 fl oz/a	D			
N-PAK - AMS	5 % v/v	D			
Mean =			65.0	0.0	92.5
3 AIM	1 fl oz/a	B 103	55.0	0.0	50.0
SENCOR	5 oz/a	B 303	50.0	0.0	40.0
2,4-D LV4	16 fl oz/a	B 407	80.0	0.0	85.0
AUTHORITY XL	4 oz/a	B 505	50.0	0.0	70.0
PRIME OIL - COC	1 % v/v	B			
LIBERTY 280 SL	29 fl oz/a	D			
N-PAK - AMS	5 % v/v	D			
Mean =			58.8	0.0	61.3

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type	W Weed		W Weed	W Weed			
Pest Code	ERICA		ERICA	ERICA			
Pest Scientific Name	Conyza canadensis		Conyza canadensis	Conyza canadensis			
Pest Name	Canada horsewee		Canada horsewee	Canada horsewee			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	HENEZHAN	HENEZHAN		
Rating Timing	ATPLANTING	7DAC	7DAC	14DAC	30DAC		
Days After First/Last Applic.	15 9	21 6	21 6	28 13	42 27		
Trt-Eval Interval	0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C		
Plant-Eval Interval	0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1		
Days After Emergence	-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1		
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
4 AIM	1 fl oz/a C	104	.	5.0	45.0	20.0	0.0
SENCOR	5 oz/a C	206	.	5.0	35.0	20.0	0.0
AUTHORITY XL	4 oz/a C	311	.	0.0	45.0	50.0	0.0
PRIME OIL - COC	1 % v/v C	506	.	5.0	30.0	15.0	0.0
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		.	3.8	38.8	26.3	0.0
5 AIM	1 fl oz/a B	105	75.0	0.0	60.0	60.0	0.0
SENCOR	5 oz/a B	204	70.0	0.0	60.0	65.0	0.0
GRAMOXONE SL	32 fl oz/a B	310	75.0	0.0	90.0	85.0	0.0
2,4-D LV4	16 fl oz/a B	509	90.0	0.0	90.0	80.0	0.0
AUTHORITY XL	4 oz/a B						
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		77.5	0.0	75.0	72.5	0.0
6 AIM	1 fl oz/a B	106	70.0	0.0	75.0	75.0	0.0
SENCOR	5 oz/a B	207	75.0	0.0	85.0	85.0	0.0
GRAMOXONE SL	48 fl oz/a B	308	80.0	0.0	90.0	80.0	0.0
2,4-D LV4	16 fl oz/a B	512	80.0	0.0	85.0	85.0	0.0
AUTHORITY XL	4 oz/a B						
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		76.3	0.0	83.8	81.3	0.0
7 AIM	1 fl oz/a B	107	70.0	0.0	60.0	70.0	0.0
GRAMOXONE SL	32 fl oz/a B	212	75.0	0.0	70.0	70.0	0.0
2,4-D LV4	16 fl oz/a B	309	80.0	0.0	90.0	80.0	0.0
AUTHORITY MTZ	14 oz/a B	511	85.0	0.0	90.0	90.0	5.0
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		77.5	0.0	77.5	77.5	1.3
8 AIM	1 fl oz/a B	108	70.0	0.0	70.0	75.0	0.0
GRAMOXONE SL	48 fl oz/a B	302	75.0	0.0	80.0	85.0	0.0
2,4-D LV4	16 fl oz/a B	312	90.0	0.0	95.0	90.0	0.0
AUTHORITY MTZ	14 oz/a B	510	90.0	0.0	95.0	90.0	5.0
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		81.3	0.0	85.0	85.0	1.3

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERICA	ERICA	ERICA	ERICA
Pest Scientific Name	<i>Conyza canadensis</i>	<i>Conyza canadensis</i>	<i>Conyza canadensis</i>	<i>Conyza canadensis</i>	<i>Conyza canadensis</i>
Pest Name	Canada horsewee>	Canada horsewee>	Canada horsewee>	Canada horsewee>	Canada horsewee>
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	HENEZHAN	HENEZHAN
Rating Timing	ATPLANTING	7DAC	7DAC	14DAC	30DAC
Days After First/Last Applic.	15 9	21 6	21 6	28 13	42 27
Trt-Eval Interval	0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C
Plant-Eval Interval	0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1
Days After Emergence	-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1
ARM Action Codes					
Number of Decimals					
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	1	2	3
9 AIM	1 fl oz/a C	109	.	0.0	65.0
SENCOR	5 oz/a C	208	.	5.0	65.0
GRAMOXONE SL	48 fl oz/a C	405	.	0.0	60.0
AUTHORITY XL	4 oz/a C	508	.	5.0	70.0
PRIME OIL - COC	1 % v/v C		.		
LIBERTY 280 SL	29 fl oz/a D		.		
N-PAK - AMS	5 % v/v D		.		
	Mean =		.	2.5	65.0
10 AIM	1 fl oz/a C	110	.	5.0	60.0
GRAMOXONE SL	48 fl oz/a C	205	.	5.0	60.0
AUTHORITY MTZ	14 oz/a C	404	.	5.0	60.0
PRIME OIL - COC	1 % v/v C	504	.	5.0	70.0
LIBERTY 280 SL	29 fl oz/a D		.		
N-PAK - AMS	5 % v/v D		.		
	Mean =		.	5.0	62.5
11 AIM	1 fl oz/a C	111	.	0.0	35.0
SENCOR	5 oz/a C	209	.	5.0	40.0
BUTYRAC 200	14 fl oz/a C	401	.	5.0	30.0
AUTHORITY XL	4 oz/a C	502	.	5.0	30.0
ACTIVATOR 90 - NIS	0.25 % v/v C		.		
PRIME OIL - COC	1 % v/v C		.		
LIBERTY 280 SL	29 fl oz/a D		.		
N-PAK - AMS	5 % v/v D		.		
	Mean =		.	3.8	33.8
12 AIM	1 fl oz/a C	112	.	5.0	35.0
BUTYRAC 200	14 fl oz/a C	213	.	0.0	45.0
AUTHORITY MTZ	14 oz/a C	307	.	5.0	45.0
ACTIVATOR 90 - NIS	0.25 % v/v C	413	.	5.0	35.0
PRIME OIL - COC	1 % v/v C		.		
LIBERTY 280 SL	29 fl oz/a D		.		
N-PAK - AMS	5 % v/v D		.		
	Mean =		.	3.8	40.0
13 AIM	1 fl oz/a C	113	.	5.0	60.0
LIBERTY 280 SL	29 fl oz/a C	306	.	5.0	80.0
AUTHORITY MTZ	14 oz/a C	402	.	0.0	70.0
PRIME OIL - COC	1 % v/v C	411	.	0.0	60.0
N-PAK - AMS	5 % v/v C		.		
LIBERTY 280 SL	29 fl oz/a D		.		
N-PAK - AMS	5 % v/v D		.		
	Mean =		.	2.5	67.5

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Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

W Weed	W Weed	W Weed	W Weed	W Weed
ERICA	ERICA	ERICA	ERICA	ERICA
Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis
Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed
GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BSOY	BSOY	BSOY	BSOY	BSOY
Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Soybean	Soybean	Soybean	Soybean	Soybean
PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015
CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN
%	%	%	%	%
1	1	1	1	1
HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
ATPLANTING	7DAC	7DAC	14DAC	30DAC
15 9	21 6	21 6	28 13	42 27
0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C
0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1
-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1
ARM Action Codes				
Number of Decimals				
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	1	2
14 AIM	1 fl oz/a C	201	.	0.0
BUTYRAC 200	14 fl oz/a C	211	.	0.0
LIBERTY 280 SL	29 fl oz/a C	409	.	0.0
AUTHORITY MTZ	14 oz/a C	501	.	5.0
ACTIVATOR 90 - NIS	0.25 % v/v C		.	
PRIME OIL - COC	1 % v/v C		.	
N-PAK - AMS	5 % v/v C		.	
LIBERTY 280 SL	29 fl oz/a D		.	
N-PAK - AMS	5 % v/v D		.	
Mean =			.	1.3
15 AIM	1 fl oz/a C	202	.	0.0
SHARPEN	1 fl oz/a C	304	.	0.0
LIBERTY 280 SL	29 fl oz/a C	403	.	5.0
AUTHORITY MTZ	14 oz/a C	412	.	0.0
MSO ULTRA	1 % v/v C		.	
N-PAK - AMS	5 % v/v C		.	
LIBERTY 280 SL	29 fl oz/a D		.	
N-PAK - AMS	5 % v/v D		.	
Mean =			.	1.3
16 Untreated Check		203	.	0.0
		305	.	0.0
		313	.	0.0
		507	.	0.0
Mean =			.	0.0

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14	Location: CORTLAND	Trial Year: 2015
Protocol ID: 15S-CORT-NTS-14	Investigator: Dr. Bill Johnson	
Project ID: SULF.SOY.15.JPR.02(a)	Study Director: Joey Heneghan	
	Sponsor Contact: J. Reed	

Pest Type	W Weed	W Weed	W Weed	W Weed			
Pest Code	ERICA	ERICA	ERICA	ERICA			
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis			
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-24-2015	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	YIELD		
Rating Unit	%	%	%	%	lb/plot		
Number of Subsamples	1	1	1	1	1		
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	IKLEY/HENEG		
Rating Timing	30DAC	45DAC	45DAC	60DAC			
Days After First/Last Applic.	42 27	57 15	57 15	70 28	162 120		
Trt-Eval Interval	27 DA-C	42 DA-C	42 DA-C	55 DA-C			
Plant-Eval Interval	27 DP-1	42 DP-1	42 DP-1	55 DP-1	147 DP-1		
Days After Emergence	21 DE-1	36 DE-1	36 DE-1	49 DE-1	141 DE-1		
ARM Action Codes							
Number of Decimals					2		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	6	7	8		
			9	10			
1 SHARPEN	1 fl oz/a A	101	100.0	0.0	100.0	100.0	19.47*
MSO ULTRA	1 % v/v A	210	100.0	0.0	100.0	100.0	17.98
N-PAK - AMS	2.5 % v/v A	408	100.0	0.0	100.0	100.0	22.44
SENCOR	5 oz/a B	503	100.0	0.0	100.0	100.0	17.98
2,4-D LV4	16 fl oz/a B						
PRIME OIL - COC	1 % v/v B						
AUTHORITY XL	4 oz/a C						
PRIME OIL - COC	1 % v/v C						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		100.0	0.0	100.0	100.0	19.47
2 SENCOR	5 oz/a A	102	95.0	0.0	100.0	100.0	21.58*
2,4-D LV4	16 fl oz/a A	301	85.0	0.0	100.0	100.0	21.58*
AUTHORITY XL	4 oz/a A	406	90.0	0.0	100.0	100.0	23.09
PRIME OIL - COC	1 % v/v A	410	95.0	0.0	100.0	100.0	20.08
SHARPEN	1 fl oz/a C						
MSO ULTRA	1 % v/v C						
N-PAK - AMS	2.5 % v/v C						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		91.3	0.0	100.0	100.0	21.58
3 AIM	1 fl oz/a B	103	50.0	0.0	85.0	100.0	21.66*
SENCOR	5 oz/a B	303	30.0	0.0	90.0	90.0	21.66*
2,4-D LV4	16 fl oz/a B	407	70.0	0.0	95.0	100.0	21.26
AUTHORITY XL	4 oz/a B	505	25.0	0.0	95.0	85.0	22.07
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		43.8	0.0	91.3	93.8	21.66

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 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type	W Weed		W Weed	W Weed			
Pest Code	ERICA		ERICA	ERICA			
Pest Scientific Name	Conyza canadensis		Conyza canadensis	Conyza canadensis			
Pest Name	Canada horsewee		Canada horsewee	Canada horsewee			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jun-24-2015	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	YIELD		
Rating Unit	%	%	%	%	lb/plot		
Number of Subsamples	1	1	1	1	1		
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	HENEZHAN	IKLEY/HENEZHAN		
Rating Timing	30DAC	45DAC	45DAC	60DAC			
Days After First/Last Applic.	42 27	57 15	57 15	70 28	162 120		
Trt-Eval Interval	27 DA-C	42 DA-C	42 DA-C	55 DA-C			
Plant-Eval Interval	27 DP-1	42 DP-1	42 DP-1	55 DP-1	147 DP-1		
Days After Emergence	21 DE-1	36 DE-1	36 DE-1	49 DE-1	141 DE-1		
ARM Action Codes							
Number of Decimals					2		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	6	7	8	9	10
4 AIM	1 fl oz/a C	104	0.0	0.0	50.0	60.0	15.55*
SENCOR	5 oz/a C	206	15.0	0.0	60.0	70.0	12.40
AUTHORITY XL	4 oz/a C	311	30.0	0.0	75.0	65.0	16.69
PRIME OIL - COC	1 % v/v C	506	10.0	0.0	90.0	70.0	17.55
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
		Mean =	13.8	0.0	68.8	66.3	15.55
5 AIM	1 fl oz/a B	105	65.0	0.0	95.0	100.0	17.18*
SENCOR	5 oz/a B	204	75.0	0.0	90.0	100.0	13.20
GRAMOXONE SL	32 fl oz/a B	310	85.0	0.0	100.0	100.0	18.36
2,4-D LV4	16 fl oz/a B	509	75.0	0.0	100.0	100.0	19.97
AUTHORITY XL	4 oz/a B						
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
		Mean =	75.0	0.0	96.3	100.0	17.18
6 AIM	1 fl oz/a B	106	70.0	0.0	95.0	100.0	19.74*
SENCOR	5 oz/a B	207	85.0	0.0	100.0	100.0	16.21
GRAMOXONE SL	48 fl oz/a B	308	85.0	0.0	95.0	100.0	22.17
2,4-D LV4	16 fl oz/a B	512	80.0	0.0	100.0	100.0	20.83
AUTHORITY XL	4 oz/a B						
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
		Mean =	80.0	0.0	97.5	100.0	19.74
7 AIM	1 fl oz/a B	107	65.0	0.0	90.0	100.0	20.06*
GRAMOXONE SL	32 fl oz/a B	212	60.0	0.0	95.0	100.0	20.35
2,4-D LV4	16 fl oz/a B	309	85.0	0.0	100.0	100.0	18.74
AUTHORITY MTZ	14 oz/a B	511	80.0	0.0	100.0	100.0	21.10
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
		Mean =	72.5	0.0	96.3	100.0	20.06
8 AIM	1 fl oz/a B	108	65.0	0.0	95.0	100.0	14.22
GRAMOXONE SL	48 fl oz/a B	302	75.0	0.0	100.0	100.0	15.08
2,4-D LV4	16 fl oz/a B	312	85.0	0.0	100.0	100.0	21.42
AUTHORITY MTZ	14 oz/a B	510	80.0	0.0	100.0	100.0	21.96
PRIME OIL - COC	1 % v/v B						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
		Mean =	76.3	0.0	98.8	100.0	18.17

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 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
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Pest Type	W Weed		W Weed	W Weed	
Pest Code	ERICA		ERICA	ERICA	
Pest Scientific Name	Conyza canadensis		Conyza canadensis	Conyza canadensis	
Pest Name	Canada horsewee		Canada horsewee	Canada horsewee	
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	Jun-24-2015	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	YIELD
Rating Unit	%	%	%	%	lb/plot
Number of Subsamples	1	1	1	1	1
Assessed By	HENEHGAN	HENEHGAN	HENEHGAN	HENEHGAN	IKLEY/HENEG
Rating Timing	30DAC	45DAC	45DAC	60DAC	
Days After First/Last Applic.	42 27	57 15	57 15	70 28	162 120
Trt-Eval Interval	27 DA-C	42 DA-C	42 DA-C	55 DA-C	
Plant-Eval Interval	27 DP-1	42 DP-1	42 DP-1	55 DP-1	147 DP-1
Days After Emergence	21 DE-1	36 DE-1	36 DE-1	49 DE-1	141 DE-1
ARM Action Codes					
Number of Decimals					2
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	6	7	8
9 AIM	1 fl oz/a C	109	55.0	0.0	90.0
SENCOR	5 oz/a C	208	75.0	0.0	95.0
GRAMOXONE SL	48 fl oz/a C	405	65.0	0.0	90.0
AUTHORITY XL	4 oz/a C	508	70.0	0.0	95.0
PRIME OIL - COC	1 % v/v C				
LIBERTY 280 SL	29 fl oz/a D				
N-PAK - AMS	5 % v/v D				
	Mean =		66.3	0.0	92.5
10 AIM	1 fl oz/a C	110	50.0	0.0	95.0
GRAMOXONE SL	48 fl oz/a C	205	75.0	0.0	95.0
AUTHORITY MTZ	14 oz/a C	404	65.0	0.0	95.0
PRIME OIL - COC	1 % v/v C	504	35.0	0.0	95.0
LIBERTY 280 SL	29 fl oz/a D				
N-PAK - AMS	5 % v/v D				
	Mean =		56.3	0.0	95.0
11 AIM	1 fl oz/a C	111	15.0	0.0	75.0
SENCOR	5 oz/a C	209	15.0	0.0	85.0
BUTYRAC 200	14 fl oz/a C	401	20.0	0.0	85.0
AUTHORITY XL	4 oz/a C	502	20.0	0.0	70.0
ACTIVATOR 90 - NIS	0.25 % v/v C				
PRIME OIL - COC	1 % v/v C				
LIBERTY 280 SL	29 fl oz/a D				
N-PAK - AMS	5 % v/v D				
	Mean =		17.5	0.0	78.8
12 AIM	1 fl oz/a C	112	15.0	0.0	60.0
BUTYRAC 200	14 fl oz/a C	213	10.0	0.0	85.0
AUTHORITY MTZ	14 oz/a C	307	15.0	0.0	80.0
ACTIVATOR 90 - NIS	0.25 % v/v C	413	0.0	0.0	75.0
PRIME OIL - COC	1 % v/v C				
LIBERTY 280 SL	29 fl oz/a D				
N-PAK - AMS	5 % v/v D				
	Mean =		10.0	0.0	75.0
13 AIM	1 fl oz/a C	113	80.0	0.0	95.0
LIBERTY 280 SL	29 fl oz/a C	306	75.0	0.0	100.0
AUTHORITY MTZ	14 oz/a C	402	75.0	0.0	100.0
PRIME OIL - COC	1 % v/v C	411	75.0	0.0	100.0
N-PAK - AMS	5 % v/v C				
LIBERTY 280 SL	29 fl oz/a D				
N-PAK - AMS	5 % v/v D				
	Mean =		76.3	0.0	98.8

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

W Weed	W Weed	W Weed	W Weed	W Weed			
ERICA	ERICA	ERICA	ERICA	ERICA			
Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis			
Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed			
GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
BSOY	BSOY	BSOY	BSOY	BSOY			
Glycine max	Glycine max	Glycine max	Glycine max	Glycine max			
Soybean	Soybean	Soybean	Soybean	Soybean			
PLOT -	PLOT -	PLOT -	PLOT -	PLOT -			
Jun-24-2015	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015			
CONTRO	PHYGEN	CONTRO	CONTRO	YIELD			
%	%	%	%	lb/plot			
1	1	1	1	1			
HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	IKLEY/HENEG			
30DAC	45DAC	45DAC	60DAC				
42 27	57 15	57 15	70 28	162 120			
27 DA-C	42 DA-C	42 DA-C	55 DA-C				
27 DP-1	42 DP-1	42 DP-1	55 DP-1	147 DP-1			
21 DE-1	36 DE-1	36 DE-1	49 DE-1	141 DE-1			
				2			
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	6	7	8	9	10
14 AIM	1 fl oz/a C	201	80.0	0.0	100.0	100.0	18.57*
BUTYRAC 200	14 fl oz/a C	211	70.0	0.0	100.0	100.0	17.88
LIBERTY 280 SL	29 fl oz/a C	409	65.0	0.0	100.0	100.0	20.24
AUTHORITY MTZ	14 oz/a C	501	75.0	0.0	95.0	100.0	17.61
ACTIVATOR 90 - NIS	0.25 % v/v C						
PRIME OIL - COC	1 % v/v C						
N-PAK - AMS	5 % v/v C						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		72.5	0.0	98.8	100.0	18.57
15 AIM	1 fl oz/a C	202	80.0	0.0	95.0	100.0	17.98*
SHARPEN	1 fl oz/a C	304	90.0	0.0	100.0	95.0	17.07
LIBERTY 280 SL	29 fl oz/a C	403	85.0	0.0	100.0	100.0	16.53
AUTHORITY MTZ	14 oz/a C	412	85.0	0.0	90.0	100.0	20.35
MSO ULTRA	1 % v/v C						
N-PAK - AMS	5 % v/v C						
LIBERTY 280 SL	29 fl oz/a D						
N-PAK - AMS	5 % v/v D						
	Mean =		85.0	0.0	96.3	98.8	17.98
16 Untreated Check		203	0.0	0.0	0.0	0.0	2.35
		305	0.0	0.0	0.0	0.0	3.48
		313	0.0	0.0	0.0	0.0	4.45
		507	0.0	0.0	0.0	0.0	2.68
	Mean =		0.0	0.0	0.0	0.0	3.24

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14	Location: CORTLAND Trial Year: 2015
Protocol ID: 15S-CORT-NTS-14	Investigator: Dr. Bill Johnson
Project ID: SULF.SOY.15.JPR.02(a)	Study Director: Joey Heneghan
	Sponsor Contact: J. Reed

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Code	GLXMA	GLXMA	
BBCH Scale	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	
Part Rated	PLOT -	PLOT -	
Rating Date	Oct-22-2015	Oct-22-2015	
Rating Type	MOICON	YIELD	
Rating Unit	%	BU	
Number of Subsamples	1	1	
Assessed By	IKLEY/HENEG	IKLEY/HENEG	
Rating Timing			
Days After First/Last Applic.	162 120	162 120	
Trt-Eval Interval			
Plant-Eval Interval	147 DP-1	147 DP-1	
Days After Emergence	141 DE-1	141 DE-1	
ARM Action Codes		TY1	
Number of Decimals	2	1	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code Plot	
			11 12
1 SHARPEN	1 fl oz/a A	101	11.05 57.8*
MSO ULTRA	1 % v/v A	210	11.25 53.3
N-PAK - AMS	2.5 % v/v A	408	10.90 66.7
SENCOR	5 oz/a B	503	11.13 53.3
2,4-D LV4	16 fl oz/a B		
PRIME OIL - COC	1 % v/v B		
AUTHORITY XL	4 oz/a C		
PRIME OIL - COC	1 % v/v C		
LIBERTY 280 SL	29 fl oz/a D		
N-PAK - AMS	5 % v/v D		
	Mean =		11.08 57.8
2 SENCOR	5 oz/a A	102	12.03 63.8*
2,4-D LV4	16 fl oz/a A	301	11.52 63.8*
AUTHORITY XL	4 oz/a A	406	11.50 68.2
PRIME OIL - COC	1 % v/v A	410	11.22 59.5
SHARPEN	1 fl oz/a C		
MSO ULTRA	1 % v/v C		
N-PAK - AMS	2.5 % v/v C		
LIBERTY 280 SL	29 fl oz/a D		
N-PAK - AMS	5 % v/v D		
	Mean =		11.57 63.8
3 AIM	1 fl oz/a B	103	11.70 64.1*
SENCOR	5 oz/a B	303	11.86 64.1*
2,4-D LV4	16 fl oz/a B	407	11.37 62.9
AUTHORITY XL	4 oz/a B	505	11.31 65.3
PRIME OIL - COC	1 % v/v B		
LIBERTY 280 SL	29 fl oz/a D		
N-PAK - AMS	5 % v/v D		
	Mean =		11.56 64.1

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Code		GLXMA	GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Part Rated		PLOT -	PLOT -	
Rating Date		Oct-22-2015	Oct-22-2015	
Rating Type		MOICON	YIELD	
Rating Unit		%	BU	
Number of Subsamples		1	1	
Assessed By		IKLEY/HENEG	IKLEY/HENEG	
Rating Timing				
Days After First/Last Applic.		162 120	162 120	
Trt-Eval Interval				
Plant-Eval Interval		147 DP-1	147 DP-1	
Days After Emergence		141 DE-1	141 DE-1	
ARM Action Codes			TY1	
Number of Decimals		2	1	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	11	12
4 AIM	1 fl oz/a C	104	11.81	46.1*
SENCOR	5 oz/a C	206	11.27	36.7
AUTHORITY XL	4 oz/a C	311	11.14	49.5
PRIME OIL - COC	1 % v/v C	506	11.27	52.0
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.37	46.1
5 AIM	1 fl oz/a B	105	11.62	50.8*
SENCOR	5 oz/a B	204	11.63	38.9
GRAMOXONE SL	32 fl oz/a B	310	11.30	54.4
2,4-D LV4	16 fl oz/a B	509	11.21	59.2
AUTHORITY XL	4 oz/a B			
PRIME OIL - COC	1 % v/v B			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.44	50.8
6 AIM	1 fl oz/a B	106	11.51	58.5*
SENCOR	5 oz/a B	207	11.46	47.9
GRAMOXONE SL	48 fl oz/a B	308	11.14	65.8
2,4-D LV4	16 fl oz/a B	512	11.25	61.7
AUTHORITY XL	4 oz/a B			
PRIME OIL - COC	1 % v/v B			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.34	58.5
7 AIM	1 fl oz/a B	107	11.76	59.4*
GRAMOXONE SL	32 fl oz/a B	212	11.27	60.3
2,4-D LV4	16 fl oz/a B	309	11.36	55.4
AUTHORITY MTZ	14 oz/a B	511	11.28	62.5
PRIME OIL - COC	1 % v/v B			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.42	59.4
8 AIM	1 fl oz/a B	108	11.44	42.0
GRAMOXONE SL	48 fl oz/a B	302	11.75	44.4
2,4-D LV4	16 fl oz/a B	312	10.97	63.7
AUTHORITY MTZ	14 oz/a B	510	11.04	65.2
PRIME OIL - COC	1 % v/v B			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.30	53.8

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Code		GLXMA	GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Part Rated		PLOT -	PLOT -	
Rating Date		Oct-22-2015	Oct-22-2015	
Rating Type		MOICON	YIELD	
Rating Unit		%	BU	
Number of Subsamples		1	1	
Assessed By		IKLEY/HENEG	IKLEY/HENEG	
Rating Timing				
Days After First/Last Applic.		162 120	162 120	
Trt-Eval Interval				
Plant-Eval Interval		147 DP-1	147 DP-1	
Days After Emergence		141 DE-1	141 DE-1	
ARM Action Codes			TY1	
Number of Decimals		2	1	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	11	12
9 AIM	1 fl oz/a C	109	11.51	39.3
SENCOR	5 oz/a C	208	11.23	45.0
GRAMOXONE SL	48 fl oz/a C	405	11.48	55.4
AUTHORITY XL	4 oz/a C	508	10.84	51.9
PRIME OIL - COC	1 % v/v C			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.26	47.9
10 AIM	1 fl oz/a C	110	11.46	45.1
GRAMOXONE SL	48 fl oz/a C	205	12.04	38.8
AUTHORITY MTZ	14 oz/a C	404	11.27	57.7
PRIME OIL - COC	1 % v/v C	504	11.31	64.1
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.52	51.4
11 AIM	1 fl oz/a C	111	11.30	39.9
SENCOR	5 oz/a C	209	11.52	42.6
BUTYRAC 200	14 fl oz/a C	401	11.76	40.9
AUTHORITY XL	4 oz/a C	502	11.25	46.7
ACTIVATOR 90 - NIS	0.25 % v/v C			
PRIME OIL - COC	1 % v/v C			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.46	42.6
12 AIM	1 fl oz/a C	112	11.22	41.7
BUTYRAC 200	14 fl oz/a C	213	11.00	47.7
AUTHORITY MTZ	14 oz/a C	307	11.43	47.4
ACTIVATOR 90 - NIS	0.25 % v/v C	413	10.98	39.1
PRIME OIL - COC	1 % v/v C			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.16	44.0
13 AIM	1 fl oz/a C	113	11.69	49.5
LIBERTY 280 SL	29 fl oz/a C	306	11.44	52.4
AUTHORITY MTZ	14 oz/a C	402	11.83	47.6
PRIME OIL - COC	1 % v/v C	411	11.19	61.3
N-PAK - AMS	5 % v/v C			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.54	52.7

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Code		GLXMA	GLXMA	
BBCH Scale		BSOY	BSOY	
Crop Scientific Name		Glycine max	Glycine max	
Crop Name		Soybean	Soybean	
Part Rated		PLOT -	PLOT -	
Rating Date		Oct-22-2015	Oct-22-2015	
Rating Type		MOICON	YIELD	
Rating Unit		%	BU	
Number of Subsamples		1	1	
Assessed By		IKLEY/HENEG	IKLEY/HENEG	
Rating Timing				
Days After First/Last Applic.		162 120	162 120	
Trt-Eval Interval				
Plant-Eval Interval		147 DP-1	147 DP-1	
Days After Emergence		141 DE-1	141 DE-1	
ARM Action Codes			TY1	
Number of Decimals		2	1	
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code Plot	11	12
14 AIM	1 fl oz/a C	201	11.85	54.9*
BUTYRAC 200	14 fl oz/a C	211	11.49	52.8
LIBERTY 280 SL	29 fl oz/a C	409	11.36	59.9
AUTHORITY MTZ	14 oz/a C	501	11.59	52.0
ACTIVATOR 90 - NIS	0.25 % v/v C			
PRIME OIL - COC	1 % v/v C			
N-PAK - AMS	5 % v/v C			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.57	54.9
15 AIM	1 fl oz/a C	202	12.09	53.1*
SHARPEN	1 fl oz/a C	304	11.94	50.2
LIBERTY 280 SL	29 fl oz/a C	403	11.54	48.8
AUTHORITY MTZ	14 oz/a C	412	11.36	60.2
MISO ULTRA	1 % v/v C			
N-PAK - AMS	5 % v/v C			
LIBERTY 280 SL	29 fl oz/a D			
N-PAK - AMS	5 % v/v D			
	Mean =		11.73	53.1
16 Untreated Check		203	3.07	7.6
		305	5.99	10.9
		313	8.27	13.6
		507	4.17	8.6
	Mean =		5.37	10.2

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14
 Protocol ID: 15S-CORT-NTS-14
 Project ID: SULF.SOY.15.JPR.02(a)

Location: CORTLAND Trial Year: 2015
 Investigator: Dr. Bill Johnson
 Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type

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

Pest Code

ERICA, Conyza canadensis, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Part Rated

PLOT = plot

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

YIELD = yield

MOICON = moisture content

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

Plant-Eval Interval

0 DP-1 = 1 GLXMA May-28-2015

6 DP-1 = 1 GLXMA May-28-2015

13 DP-1 = 1 GLXMA May-28-2015

27 DP-1 = 1 GLXMA May-28-2015

42 DP-1 = 1 GLXMA May-28-2015

55 DP-1 = 1 GLXMA May-28-2015

147 DP-1 = 1 GLXMA May-28-2015

ARM Action Codes

TY1 = 2.904*[10]^(100-[11])/87

Pest Type	W Weed		W Weed	W Weed		W Weed		
Pest Code	ERICA		ERICA	ERICA		ERICA		
Pest Scientific Name	Conyza canadensis		Conyza canadensis	Conyza canadensis		Conyza canadensis		
Pest Name	Canada horsewee		Canada horsewee	Canada horsewee		Canada horsewee		
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015	Jun-24-2015		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	HENECHAN	HENECHAN	HENECHAN	HENECHAN	HENECHAN	HENECHAN		
Rating Timing	ATPLANTING	7DAC	7DAC	14DAC	30DAC	30DAC		
Days After First/Last Applic.	15 9	21 6	21 6	28 13	42 27	42 27		
Trt-Eval Interval	0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C	27 DA-C		
Plant-Eval Interval	0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1	27 DP-1		
Days After Emergence	-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1	21 DE-1		
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	1	2	3	4	5	6
1 SHARPEN	1 fl oz/a	A	92.5 a	0.0 b	97.5 a	100.0 a	0.0 a	100.0 a
MSO ULTRA	1 % v/v	A						
N-PAK - AMS	2.5 % v/v	A						
SENCOR	5 oz/a	B						
2,4-D LV4	16 fl oz/a	B						
PRIME OIL - COC	1 % v/v	B						
AUTHORITY XL	4 oz/a	C						
PRIME OIL - COC	1 % v/v	C						
LIBERTY 280 SL	29 fl oz/a	D						
N-PAK - AMS	5 % v/v	D						
2 SENCOR	5 oz/a	A	65.0 bc	0.0 b	92.5 ab	93.8 ab	0.0 a	91.3 ab
2,4-D LV4	16 fl oz/a	A						
AUTHORITY XL	4 oz/a	A						
PRIME OIL - COC	1 % v/v	A						
SHARPEN	1 fl oz/a	C						
MSO ULTRA	1 % v/v	C						
N-PAK - AMS	2.5 % v/v	C						
LIBERTY 280 SL	29 fl oz/a	D						
N-PAK - AMS	5 % v/v	D						

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	ERICA	ERICA	ERICA	ERICA	ERICA				
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis				
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean				
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -				
Rating Date	May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015				
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN				
Rating Timing	ATPLANTING	7DAC	7DAC	14DAC	30DAC				
Days After First/Last Applic.	15 9	21 6	21 6	28 13	42 27				
Trt-Eval Interval	0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C				
Plant-Eval Interval	0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1				
Days After Emergence	-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1				
ARM Action Codes									
Number of Decimals									
Trt No.	Treatment Name	Rate	Appl						
		Rate Unit	Code	1	2	3	4	5	6
3	AIM	1 fl oz/a B		58.8 c	0.0 b	61.3 d	57.5 e	0.0 a	43.8 e
	SENCOR	5 oz/a B							
	2,4-D LV4	16 fl oz/a B							
	AUTHORITY XL	4 oz/a B							
	PRIME OIL - COC	1 % v/v B							
	LIBERTY 280 SL	29 fl oz/a D							
	N-PAK - AMS	5 % v/v D							
4	AIM	1 fl oz/a C			3.8 ab	38.8 e	26.3 f	0.0 a	13.8 fg
	SENCOR	5 oz/a C							
	AUTHORITY XL	4 oz/a C							
	PRIME OIL - COC	1 % v/v C							
	LIBERTY 280 SL	29 fl oz/a D							
	N-PAK - AMS	5 % v/v D							
5	AIM	1 fl oz/a B		77.5 ab	0.0 b	75.0 bcd	72.5 cde	0.0 a	75.0 bc
	SENCOR	5 oz/a B							
	GRAMOXONE SL	32 fl oz/a B							
	2,4-D LV4	16 fl oz/a B							
	AUTHORITY XL	4 oz/a B							
	PRIME OIL - COC	1 % v/v B							
	LIBERTY 280 SL	29 fl oz/a D							
	N-PAK - AMS	5 % v/v D							
6	AIM	1 fl oz/a B		76.3 ab	0.0 b	83.8 abc	81.3 abc	0.0 a	80.0 bc
	SENCOR	5 oz/a B							
	GRAMOXONE SL	48 fl oz/a B							
	2,4-D LV4	16 fl oz/a B							
	AUTHORITY XL	4 oz/a B							
	PRIME OIL - COC	1 % v/v B							
	LIBERTY 280 SL	29 fl oz/a D							
	N-PAK - AMS	5 % v/v D							
7	AIM	1 fl oz/a B		77.5 ab	0.0 b	77.5 bcd	77.5 bcd	1.3 a	72.5 bcd
	GRAMOXONE SL	32 fl oz/a B							
	2,4-D LV4	16 fl oz/a B							
	AUTHORITY MTZ	14 oz/a B							
	PRIME OIL - COC	1 % v/v B							
	LIBERTY 280 SL	29 fl oz/a D							
	N-PAK - AMS	5 % v/v D							
8	AIM	1 fl oz/a B		81.3 ab	0.0 b	85.0 abc	85.0 abc	1.3 a	76.3 bc
	GRAMOXONE SL	48 fl oz/a B							
	2,4-D LV4	16 fl oz/a B							
	AUTHORITY MTZ	14 oz/a B							
	PRIME OIL - COC	1 % v/v B							
	LIBERTY 280 SL	29 fl oz/a D							
	N-PAK - AMS	5 % v/v D							

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	ERICA	ERICA	ERICA	ERICA	ERICA				
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis				
Pest Name	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed	Canada horseweed				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max				
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean				
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -				
Rating Date	May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015				
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN				
Rating Timing	ATPLANTING	7DAC	7DAC	14DAC	30DAC				
Days After First/Last Applic.	15 9	21 6	21 6	28 13	42 27				
Trt-Eval Interval	0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C				
Plant-Eval Interval	0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1				
Days After Emergence	-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1				
ARM Action Codes									
Number of Decimals									
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
9	AIM	1 fl oz/a	C		2.5 ab	65.0 cd	71.3 cde	0.0 a	66.3 cd
	SENCOR	5 oz/a	C						
	GRAMOXONE SL	48 fl oz/a	C						
	AUTHORITY XL	4 oz/a	C						
	PRIME OIL - COC	1 % v/v	C						
	LIBERTY 280 SL	29 fl oz/a	D						
	N-PAK - AMS	5 % v/v	D						
10	AIM	1 fl oz/a	C		5.0 a	62.5 d	62.5 de	0.0 a	56.3 de
	GRAMOXONE SL	48 fl oz/a	C						
	AUTHORITY MTZ	14 oz/a	C						
	PRIME OIL - COC	1 % v/v	C						
	LIBERTY 280 SL	29 fl oz/a	D						
	N-PAK - AMS	5 % v/v	D						
11	AIM	1 fl oz/a	C		3.8 ab	33.8 e	25.0 f	0.0 a	17.5 f
	SENCOR	5 oz/a	C						
	BUTYRAC 200	14 fl oz/a	C						
	AUTHORITY XL	4 oz/a	C						
	ACTIVATOR 90 - NIS	0.25 % v/v	C						
	PRIME OIL - COC	1 % v/v	C						
	LIBERTY 280 SL	29 fl oz/a	D						
	N-PAK - AMS	5 % v/v	D						
12	AIM	1 fl oz/a	C		3.8 ab	40.0 e	32.5 f	0.0 a	10.0 fg
	BUTYRAC 200	14 fl oz/a	C						
	AUTHORITY MTZ	14 oz/a	C						
	ACTIVATOR 90 - NIS	0.25 % v/v	C						
	PRIME OIL - COC	1 % v/v	C						
	LIBERTY 280 SL	29 fl oz/a	D						
	N-PAK - AMS	5 % v/v	D						
13	AIM	1 fl oz/a	C		2.5 ab	67.5 cd	86.3 abc	0.0 a	76.3 bc
	LIBERTY 280 SL	29 fl oz/a	C						
	AUTHORITY MTZ	14 oz/a	C						
	PRIME OIL - COC	1 % v/v	C						
	N-PAK - AMS	5 % v/v	C						
	LIBERTY 280 SL	29 fl oz/a	D						
	N-PAK - AMS	5 % v/v	D						
14	AIM	1 fl oz/a	C		1.3 ab	66.3 cd	81.3 abc	0.0 a	72.5 bcd
	BUTYRAC 200	14 fl oz/a	C						
	LIBERTY 280 SL	29 fl oz/a	C						
	AUTHORITY MTZ	14 oz/a	C						
	ACTIVATOR 90 - NIS	0.25 % v/v	C						
	PRIME OIL - COC	1 % v/v	C						
	N-PAK - AMS	5 % v/v	C						
	LIBERTY 280 SL	29 fl oz/a	D						
	N-PAK - AMS	5 % v/v	D						

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type	W Weed		W Weed	W Weed		W Weed
Pest Code	ERICA		ERICA	ERICA		ERICA
Pest Scientific Name	Conyza canadensis		Conyza canadensis	Conyza canadensis		Conyza canadensis
Pest Name	Canada horseweed		Canada horseweed	Canada horseweed		Canada horseweed
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -
Rating Date	May-28-2015	Jun-3-2015	Jun-3-2015	Jun-10-2015	Jun-24-2015	Jun-24-2015
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN
Rating Timing	ATPLANTING	7DAC	7DAC	14DAC	30DAC	30DAC
Days After First/Last Applic.	15 9	21 6	21 6	28 13	42 27	42 27
Trt-Eval Interval	0 DA-C	6 DA-C	6 DA-C	13 DA-C	27 DA-C	27 DA-C
Plant-Eval Interval	0 DP-1	6 DP-1	6 DP-1	13 DP-1	27 DP-1	27 DP-1
Days After Emergence	-6 DE-1	0 DE-1	0 DE-1	7 DE-1	21 DE-1	21 DE-1
ARM Action Codes						
Number of Decimals						
Trt Treatment No. Name	Rate	Appl Code				
	Rate Unit		1	2	3	4
15 AIM	1 fl oz/a C			1.3 ab	86.3 abc	83.8 abc
SHARPEN	1 fl oz/a C					0.0 a
LIBERTY 280 SL	29 fl oz/a C					
AUTHORITY MTZ	14 oz/a C					
MSO ULTRA	1 % v/v C					
N-PAK - AMS	5 % v/v C					
LIBERTY 280 SL	29 fl oz/a D					
N-PAK - AMS	5 % v/v D					
16 Untreated Check			0.0 b	0.0 f	0.0 g	0.0 a
LSD P=.05	12.63	2.52		13.55	12.40	1.22
Standard Deviation	8.50	1.76		9.48	8.67	0.85
CV	11.25	118.59		14.69	13.39	546.5
Bartlett's X2	10.084	0.176		24.993	22.752	0.0
P(Bartlett's X2)	0.121	1.00		0.035*	0.045*	.
Skewness	-0.7218	0.9107*		-0.8067*	-0.9342*	5.5183*
Kurtosis	-0.1925	-1.2095*		0.1461	-0.3016	29.3694*
Replicate F	6.375	0.462		2.010	2.525	2.143
Replicate Prob(F)	0.0039	0.7101		0.1260	0.0695	0.1080
Treatment F	6.659	4.092		29.107	44.221	1.000
Treatment Prob(F)	0.0008	0.0001		0.0001	0.0001	0.4718
						0.0001

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14	Location: CORTLAND	Trial Year: 2015
Protocol ID: 15S-CORT-NTS-14	Investigator: Dr. Bill Johnson	
Project ID: SULF.SOY.15.JPR.02(a)	Study Director: Joey Heneghan	
	Sponsor Contact: J. Reed	

Pest Type			W Weed	W Weed						
Pest Code			ERICA	ERICA						
Pest Scientific Name			Conyza canadensis	Conyza canadensis						
Pest Name			Canada horseweed	Canada horseweed						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015		
Rating Type	PHYGEN	CONTRO	CONTRO	YIELD	MOICON	YIELD	MOICON	YIELD		
Rating Unit	%	%	%	lb/plot	%	%	%	BU		
Number of Subsamples	1	1	1	1	1	1	1	1		
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG		
Rating Timing	45DAC	45DAC	60DAC							
Days After First/Last Applic.	57 15	57 15	70 28	162 120	162 120	162 120	162 120	162 120		
Trt-Eval Interval	42 DA-C	42 DA-C	55 DA-C							
Plant-Eval Interval	42 DP-1	42 DP-1	55 DP-1	147 DP-1	147 DP-1	147 DP-1	147 DP-1	147 DP-1		
Days After Emergence	36 DE-1	36 DE-1	49 DE-1	141 DE-1	141 DE-1	141 DE-1	141 DE-1	141 DE-1		
ARM Action Codes								TY1		
Number of Decimals				2	2	2	2	1		
Trt No.	Treatment Name	Rate	Appl Unit	Code	7	8	9	10	11	12
1	SHARPEN	1 fl oz/a	A		0.0 a	100.0 a	100.0 a	19.47 abc	11.08 a	57.8 abc
	MISO ULTRA	1 % v/v	A							
	N-PAK - AMS	2.5 % v/v	A							
	SENCOR	5 oz/a	B							
	2,4-D LV4	16 fl oz/a	B							
	PRIME OIL - COC	1 % v/v	B							
	AUTHORITY XL	4 oz/a	C							
	PRIME OIL - COC	1 % v/v	C							
	LIBERTY 280 SL	29 fl oz/a	D							
	N-PAK - AMS	5 % v/v	D							
2	SENCOR	5 oz/a	A		0.0 a	100.0 a	100.0 a	21.58 a	11.57 a	63.8 a
	2,4-D LV4	16 fl oz/a	A							
	AUTHORITY XL	4 oz/a	A							
	PRIME OIL - COC	1 % v/v	A							
	SHARPEN	1 fl oz/a	C							
	MISO ULTRA	1 % v/v	C							
	N-PAK - AMS	2.5 % v/v	C							
	LIBERTY 280 SL	29 fl oz/a	D							
	N-PAK - AMS	5 % v/v	D							

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type		W Weed	W Weed					
Pest Code		ERICA	ERICA					
Pest Scientific Name		Conyza canadens>	Conyza canadens>					
Pest Name		Canada horsewe>	Canada horsewe>					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015		
Rating Type	PHYGEN	CONTRO	CONTRO	YIELD	MOICON	YIELD		
Rating Unit	%	%	%	lb/plot	%	BU		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG		
Rating Timing	45DAC	45DAC	60DAC					
Days After First/Last Applic.	57 15	57 15	70 28	162 120	162 120	162 120		
Trt-Eval Interval	42 DA-C	42 DA-C	55 DA-C					
Plant-Eval Interval	42 DP-1	42 DP-1	55 DP-1	147 DP-1	147 DP-1	147 DP-1		
Days After Emergence	36 DE-1	36 DE-1	49 DE-1	141 DE-1	141 DE-1	141 DE-1		
ARM Action Codes						TY1		
Number of Decimals				2	2	1		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	7	8	9	10	11	12
3 AIM	1 fl oz/a B		0.0 a	91.3 a	93.8 a	21.66 a	11.56 a	64.1 a
SENCOR	5 oz/a B							
2,4-D LV4	16 fl oz/a B							
AUTHORITY XL	4 oz/a B							
PRIME OIL - COC	1 % v/v B							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
4 AIM	1 fl oz/a C		0.0 a	68.8 c	66.3 b	15.55 bc	11.37 a	46.1 bc
SENCOR	5 oz/a C							
AUTHORITY XL	4 oz/a C							
PRIME OIL - COC	1 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
5 AIM	1 fl oz/a B		0.0 a	96.3 a	100.0 a	17.18 abc	11.44 a	50.8 abc
SENCOR	5 oz/a B							
GRAMOXONE SL	32 fl oz/a B							
2,4-D LV4	16 fl oz/a B							
AUTHORITY XL	4 oz/a B							
PRIME OIL - COC	1 % v/v B							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
6 AIM	1 fl oz/a B		0.0 a	97.5 a	100.0 a	19.74 abc	11.34 a	58.5 abc
SENCOR	5 oz/a B							
GRAMOXONE SL	48 fl oz/a B							
2,4-D LV4	16 fl oz/a B							
AUTHORITY XL	4 oz/a B							
PRIME OIL - COC	1 % v/v B							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
7 AIM	1 fl oz/a B		0.0 a	96.3 a	100.0 a	20.06 ab	11.42 a	59.4 ab
GRAMOXONE SL	32 fl oz/a B							
2,4-D LV4	16 fl oz/a B							
AUTHORITY MTZ	14 oz/a B							
PRIME OIL - COC	1 % v/v B							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
8 AIM	1 fl oz/a B		0.0 a	98.8 a	100.0 a	18.17 abc	11.30 a	53.8 abc
GRAMOXONE SL	48 fl oz/a B							
2,4-D LV4	16 fl oz/a B							
AUTHORITY MTZ	14 oz/a B							
PRIME OIL - COC	1 % v/v B							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							

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2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type		W Weed	W Weed					
Pest Code		ERICA	ERICA					
Pest Scientific Name		Conyza canadens>	Conyza canadens>					
Pest Name		Canada horsewe>	Canada horsewe>					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015		
Rating Type	PHYGEN	CONTRO	CONTRO	YIELD	MOICON	YIELD		
Rating Unit	%	%	%	lb/plot	%	BU		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG		
Rating Timing	45DAC	45DAC	60DAC					
Days After First/Last Applic.	57 15	57 15	70 28	162 120	162 120	162 120		
Trt-Eval Interval	42 DA-C	42 DA-C	55 DA-C					
Plant-Eval Interval	42 DP-1	42 DP-1	55 DP-1	147 DP-1	147 DP-1	147 DP-1		
Days After Emergence	36 DE-1	36 DE-1	49 DE-1	141 DE-1	141 DE-1	141 DE-1		
ARM Action Codes						TY1		
Number of Decimals				2	2	1		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	7	8	9	10	11	12
9 AIM	1 fl oz/a C		0.0 a	92.5 a	95.0 a	16.17 bc	11.26 a	47.9 bc
SENCOR	5 oz/a C							
GRAMOXONE SL	48 fl oz/a C							
AUTHORITY XL	4 oz/a C							
PRIME OIL - COC	1 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
10 AIM	1 fl oz/a C		0.0 a	95.0 a	100.0 a	17.39 abc	11.52 a	51.4 abc
GRAMOXONE SL	48 fl oz/a C							
AUTHORITY MTZ	14 oz/a C							
PRIME OIL - COC	1 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
11 AIM	1 fl oz/a C		0.0 a	78.8 b	73.8 b	14.40 c	11.46 a	42.6 c
SENCOR	5 oz/a C							
BUTYRAC 200	14 fl oz/a C							
AUTHORITY XL	4 oz/a C							
ACTIVATOR 90 - NIS	0.25 % v/v C							
PRIME OIL - COC	1 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
12 AIM	1 fl oz/a C		0.0 a	75.0 bc	71.3 b	14.83 bc	11.16 a	44.0 bc
BUTYRAC 200	14 fl oz/a C							
AUTHORITY MTZ	14 oz/a C							
ACTIVATOR 90 - NIS	0.25 % v/v C							
PRIME OIL - COC	1 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
13 AIM	1 fl oz/a C		0.0 a	98.8 a	100.0 a	17.84 abc	11.54 a	52.7 abc
LIBERTY 280 SL	29 fl oz/a C							
AUTHORITY MTZ	14 oz/a C							
PRIME OIL - COC	1 % v/v C							
N-PAK - AMS	5 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
14 AIM	1 fl oz/a C		0.0 a	98.8 a	100.0 a	18.57 abc	11.57 a	54.9 abc
BUTYRAC 200	14 fl oz/a C							
LIBERTY 280 SL	29 fl oz/a C							
AUTHORITY MTZ	14 oz/a C							
ACTIVATOR 90 - NIS	0.25 % v/v C							
PRIME OIL - COC	1 % v/v C							
N-PAK - AMS	5 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type		W Weed	W Weed					
Pest Code		ERICA	ERICA					
Pest Scientific Name		Conyza canadensis	Conyza canadensis					
Pest Name		Canada horseweed	Canada horseweed					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean		
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -		
Rating Date	Jul-9-2015	Jul-9-2015	Jul-22-2015	Oct-22-2015	Oct-22-2015	Oct-22-2015		
Rating Type	PHYGEN	CONTRO	CONTRO	YIELD	MOICON	YIELD		
Rating Unit	%	%	%	lb/plot	%	BU		
Number of Subsamples	1	1	1	1	1	1		
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	IKLEY/HENEG	IKLEY/HENEG	IKLEY/HENEG		
Rating Timing	45DAC	45DAC	60DAC					
Days After First/Last Applic.	57 15	57 15	70 28	162 120	162 120	162 120		
Trt-Eval Interval	42 DA-C	42 DA-C	55 DA-C					
Plant-Eval Interval	42 DP-1	42 DP-1	55 DP-1	147 DP-1	147 DP-1	147 DP-1		
Days After Emergence	36 DE-1	36 DE-1	49 DE-1	141 DE-1	141 DE-1	141 DE-1		
ARM Action Codes						TY1		
Number of Decimals				2	2	1		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	7	8	9	10	11	12
15 AIM	1 fl oz/a C		0.0 a	96.3 a	98.8 a	17.98 abc	11.73 a	53.1 abc
SHARPEN	1 fl oz/a C							
LIBERTY 280 SL	29 fl oz/a C							
AUTHORITY MTZ	14 oz/a C							
MSO ULTRA	1 % v/v C							
N-PAK - AMS	5 % v/v C							
LIBERTY 280 SL	29 fl oz/a D							
N-PAK - AMS	5 % v/v D							
16 Untreated Check			0.0 a	0.0 d	0.0 c	3.24 d	5.37 b	10.2 d
LSD P=.05	0.00		8.16	7.18	3.131	0.885	9.37	
Standard Deviation	0.00		5.71	5.03	2.168	0.620	6.49	
CV	0.0		6.6	5.75	12.67	5.61	12.8	
Bartlett's X2	0.0		28.509	8.328	14.375	65.55	14.629	
P(Bartlett's X2)	.		0.003*	0.139	0.497	0.001*	0.478	
Skewness	.		-2.7576*	-2.5722*	-1.4601*	-4.0257*	-1.416*	
Kurtosis	.		7.1229*	6.2046*	2.4577*	16.3494*	2.3196*	
Replicate F	0.000		3.589	1.418	4.936	1.422	4.943	
Replicate Prob(F)	1.0000		0.0207	0.2499	0.0059	0.2487	0.0059	
Treatment F	0.000		76.381	107.599	15.589	24.115	14.937	
Treatment Prob(F)	1.0000		0.0001	0.0001	0.0001	0.0001	0.0001	

Purdue University Weed Science

2015/SOYBEAN/LIBERTY LINK/AIM/AUTHORITY/BURNDOWNS/MARESTAIL/

Trial ID: 15S-CORT-NTS-14 Location: CORTLAND Trial Year: 2015
 Protocol ID: 15S-CORT-NTS-14 Investigator: Dr. Bill Johnson
 Project ID: SULF.SOY.15.JPR.02(a) Study Director: Joey Heneghan
 Sponsor Contact: J. Reed

Pest Type

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

Pest Code

ERICA, Conyza canadensis, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Part Rated

PLOT = plot

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

YIELD = yield

MOICON = moisture content

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

Plant-Eval Interval

0 DP-1 = 1 GLXMA May-28-2015

6 DP-1 = 1 GLXMA May-28-2015

13 DP-1 = 1 GLXMA May-28-2015

27 DP-1 = 1 GLXMA May-28-2015

42 DP-1 = 1 GLXMA May-28-2015

55 DP-1 = 1 GLXMA May-28-2015

147 DP-1 = 1 GLXMA May-28-2015

ARM Action Codes

TY1 = 2.904*[10]^(100-[11])/87