

# Purdue University Weed Science

## BroadAxe XC: Compare BroadAxe XC to Syngenta and Competitive Herbicide Programs in Soybean

Trial ID: 15S-CORT-NTS-15      Location: CORTLAND    Trial Year: 2015  
 Protocol ID: ZSOY80AD      Investigator: Dr. Bill Johnson  
 Project ID: ZSOY80AD-2015US      Study Director: Joey Heneghan  
 Sponsor Contact: S. Mroczkiewicz

### 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    **Mobile No.:** 765 404 9801  
**Postal Code:** 47907    **E-mail:** wgj@purdue.edu  
**Country:** USA    United States

### Crop Description

**Crop 1:** GLXMA    Glycine max    Soybean  
**Variety:** PIONEER P33T72R    **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  
**Soil Moisture:** SLIDRY    slightly dry

### 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:** 14  
**Replications:** 4    **Study Design:** RACOBL Randomized Complete Block (RCB)

### Maintenance

No.	Date	Maintenance Product Name	Form Conc	Form Type	Rate	Rate Unit
1.	May-26-2015	Gramoxone 2	2	L	3.5	pt/a

**Comment:** Burndown prior to planting

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## Application Description

	A	B
Application Date:	May-28-2015	Jun-24-2015
Appl. Start Time:	7:45AM	11:50AM
Appl. Stop Time:	8:15 AM	12:15 PM
Application Method:	SPRAY	SPRAY
Application Timing:	A	B
Application Placement:	BROADC	BROADC
Applied By:	HENEGHAN	DEVKOTA
Air Temperature, Unit:	68 F	77 F
% Relative Humidity:	96	40
Wind Velocity, Unit:	0 MPH	2 MPH
Wind Direction:	N	NE
Dew Presence (Y/N):	N no	
Soil Temperature, Unit:	68 F	83 F
Soil Moisture:	SLIDRY	
% Cloud Cover:	90	30

## Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH
Stage Majority, Percent:		V4 80
Stage Minimum, Percent:		V3 20
Stage Maximum, Percent:		V4 80
Height, Unit:		6 IN
Height Minimum, Maximum:		4 7

## Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ERICA W	ERICA W
Height, Unit:	20 IN	6 IN
Height Minimum, Maximum:	18 24	1 11
Density, Unit:	4 YD2	30 YD2

## Application Equipment

	A	B
Appl. Equipment:	CO2 BACKPACK	CO2 BACKPACK
Operation Pressure, Unit:	18 PSI	18 PSI
Nozzle Type:	11002XR	11002XR
Nozzle Size:	02	02
Nozzle Spacing, Unit:	15 IN	15 IN
Boom Length, Unit:	10 FT	10 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	H2O	H2O
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 liters	1.8 liters
Propellant:	CO2	CO2

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## BroadAxe XC: Compare BroadAxe XC to Syngenta and Competitive Herbicide Programs in Soybean

Trial ID: 15S-CORT-NTS-15      Location: CORTLAND      Trial Year: 2015  
 Protocol ID: ZSOY80AD      Investigator: Dr. Bill Johnson  
 Project ID: ZSOY80AD-2015US      Study Director: Joey Heneghan  
 Sponsor Contact: S. Mroczkiewicz

Reps: 4      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	Rate Unit	Appl Code	Appl Description	Amt to Measure	Product	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check										101	207	308	506
2	BROADAXE	7 LB/GAL		SC	19 fl oz/a		A	PRE	17.81 ml/mx		102	204	312	505
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
	N-PAK - AMS	3.4 LBA/GAL		SL	2.5 % v/v		B	2-3" WEEDS	45.0 ml/mx					
3	BROADAXE	7 LB/GAL		SC	25 fl oz/a		A	PRE	23.44 ml/mx		103	211	305	504
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
	N-PAK - AMS	3.4 LBA/GAL		SL	2.5 % v/v		B	2-3" WEEDS	45.0 ml/mx					
4	BROADAXE	7 LB/GAL		SC	19 fl oz/a		A	PRE	17.81 ml/mx		104	209	404	412
	TRICOR	75 %		DF	5 oz/a		A	PRE	4.493 g/mx					
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
5	BROADAXE	7 LB/GAL		SC	25 fl oz/a		A	PRE	23.44 ml/mx		105	210	405	501
	TRICOR	75 %		DF	3 oz/a		A	PRE	2.696 g/mx					
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
6	BROADAXE	7 LB/GAL		SC	25 fl oz/a		A	PRE	23.44 ml/mx		106	301	402	410
	TRICOR	75 %		DF	5 oz/a		A	PRE	4.493 g/mx					
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
7	CLASSIC	25 %		WG	1.25 oz/a		A	PRE	1.123 g/mx		107	203	310	507
	BROADAXE	7 LB/GAL		SC	19 fl oz/a		A	PRE	17.81 ml/mx					
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
8	CLASSIC	25 %		WG	1.25 oz/a		A	PRE	1.123 g/mx		108	205	306	411
	BROADAXE	7 LB/GAL		SC	25 fl oz/a		A	PRE	23.44 ml/mx					
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
9	BOUNDARY	6.5 LB/GAL		EC	1.75 pt/a		A	PRE	26.25 ml/mx		109	212	403	502
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
	N-PAK - AMS	3.4 LBA/GAL		SL	2.5 % v/v		B	2-3" WEEDS	45.0 ml/mx					
10	VALOR XLT @ 3 OZ/A										110	303	401	508
	VALOR	51 %		WG	1.76 oz/a		A	PRE	1.582 g/mx					
	CLASSIC	25 %AW/W		DF	1.24 oz/a		A	PRE	1.114 g/mx					
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					
11	N-PAK - AMS	3.4 LBA/GAL		SL	2.5 % v/v		B	2-3" WEEDS	45.0 ml/mx					
	SONIC	70 %		WG	4 oz/a		A	PRE	3.595 g/mx		111	206	311	408
	FLEXSTAR GT 3.5	2.82 LBAE/GAL		L	3.5 pt/a		B	2-3" WEEDS	52.5 ml/mx					
	MSO ULTRA	100 %		L	1 % v/v		B	2-3" WEEDS	18.0 ml/mx					

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Reps: 4                      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	Appl Unit	Appl Code	Appl Description	Amt Product to Measure	Rep			
										1	2	3	4
12	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		22 fl oz/a	A		PRE	20.62 ml/mx	112	208	309	503
	N-PAK - AMS	3.4 LBA/GAL	SL		5 % v/v	A		PRE	89.99 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		22 fl oz/a	B		2-3" WEEDS	20.62 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		5 % v/v	B		2-3" WEEDS	89.99 ml/mx				
13	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		22 fl oz/a	A		PRE	20.62 ml/mx	201	304	406	407
	KAPRE COMPLY	100 %	L		5 % v/v	A		PRE	89.99 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		5 % v/v	A		PRE	89.99 ml/mx				
	ROUNDUP POWERMAX	4.5 LBAE/GAL	SL		22 fl oz/a	B		2-3" WEEDS	20.62 ml/mx				
	KAPRE COMPLY	100 %	L		5 % v/v	B		2-3" WEEDS	89.99 ml/mx				
	N-PAK - AMS	3.4 LBA/GAL	SL		5 % v/v	B		2-3" WEEDS	89.99 ml/mx				
	Untreated Check												

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
183.984	ml	BROADAXE	7	SC	
656.249	ml	FLEXSTAR GT 3.5	2.82	L	
224.976	ml	MSO ULTRA	100	L	
1,012.390	ml	N-PAK - AMS	3.4	SL	
14.604	g	TRICOR	75	DF	
2.808	g	CLASSIC	25	WG	
32.812	ml	BOUNDARY	6.5	EC	
1.977	g	VALOR	51	WG	
1.393	g	CLASSIC	25	DF	
4.493	g	SONIC	70	WG	
103.125	ml	ROUNDUP POWERMAX	4.5	SL	
224.976	ml	KAPRE COMPLY	100	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.

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 Project ID: ZSOY80AD-2015US      Study Director: Joey Heneghan  
 Sponsor Contact: S. Mroczkiewicz

Trt	Treatment	Rate	Appl	1	2	3	4	5	6
No.	Name	Rate Unit	Code Plot						
1	Untreated Check		101	0.0	0.0	0.0	0.0	0.0	0.0
			207	0.0	0.0	0.0	0.0	0.0	0.0
			308	0.0	0.0	0.0	0.0	0.0	0.0
			506	0.0	0.0	0.0	0.0	0.0	0.0
			Mean =	0.0	0.0	0.0	0.0	0.0	0.0
2	BROADAXE	19 fl oz/a	A 102	90.0	0.0	50.0	15.0	2.0	75.0
	FLEXSTAR GT 3.5	3.5 pt/a	B 204	85.0	0.0	15.0	15.0	2.0	60.0
	MSO ULTRA	1 % v/v	B 312	75.0	0.0	15.0	15.0	3.0	70.0
	N-PAK - AMS	2.5 % v/v	B 505	75.0	0.0	20.0	10.0	3.0	75.0
			Mean =	81.3	0.0	25.0	13.8	2.5	70.0
3	BROADAXE	25 fl oz/a	A 103	80.0	0.0	40.0	15.0	2.0	70.0
	FLEXSTAR GT 3.5	3.5 pt/a	B 211	75.0	0.0	20.0	15.0	3.0	80.0
	MSO ULTRA	1 % v/v	B 305	75.0	0.0	15.0	15.0	3.0	75.0
	N-PAK - AMS	2.5 % v/v	B 504	75.0	0.0	15.0	15.0	3.0	75.0
			Mean =	76.3	0.0	22.5	15.0	2.8	75.0
4	BROADAXE	19 fl oz/a	A 104	85.0	0.0	30.0	15.0	2.0	75.0
	TRICOR	5 oz/a	A 209	90.0	0.0	35.0	10.0	3.0	80.0
	FLEXSTAR GT 3.5	3.5 pt/a	B 404	90.0	0.0	25.0	15.0	2.0	75.0
	MSO ULTRA	1 % v/v	B 412	90.0	0.0	20.0	15.0	2.0	60.0
	N-PAK - AMS	2.5 % v/v	B						
			Mean =	88.8	0.0	27.5	13.8	2.3	72.5
5	BROADAXE	25 fl oz/a	A 105	85.0	0.0	30.0	15.0	2.0	80.0
	TRICOR	3 oz/a	A 210	80.0	0.0	30.0	15.0	1.0	70.0
	FLEXSTAR GT 3.5	3.5 pt/a	B 405	85.0	0.0	30.0	15.0	3.0	80.0
	MSO ULTRA	1 % v/v	B 501	90.0	0.0	30.0	15.0	2.0	75.0
	N-PAK - AMS	2.5 % v/v	B						
			Mean =	85.0	0.0	30.0	15.0	2.0	76.3
6	BROADAXE	25 fl oz/a	A 106	80.0	0.0	25.0	15.0	2.0	70.0
	TRICOR	5 oz/a	A 301	90.0	0.0	50.0	15.0	2.0	85.0
	FLEXSTAR GT 3.5	3.5 pt/a	B 402	90.0	0.0	25.0	15.0	2.0	65.0
	MSO ULTRA	1 % v/v	B 410	85.0	0.0	20.0	15.0	2.0	70.0
	N-PAK - AMS	2.5 % v/v	B						
			Mean =	86.3	0.0	30.0	15.0	2.0	72.5
7	CLASSIC	1.25 oz/a	A 107	85.0	0.0	25.0	15.0	2.0	75.0
	BROADAXE	19 fl oz/a	A 203	80.0	0.0	25.0	10.0	2.0	60.0
	FLEXSTAR GT 3.5	3.5 pt/a	B 310	85.0	0.0	30.0	15.0	2.0	75.0
	MSO ULTRA	1 % v/v	B 507	84.2*	0.0	25.0	15.0	3.0	60.0
	N-PAK - AMS	2.5 % v/v	B						
			Mean =	83.6	0.0	26.3	13.8	2.3	67.5

# Purdue University Weed Science

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	GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	
Part Rated	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	PLOT -	
Rating Date	Jun-10-2015	Jun-24-2015	Jun-24-2015	Jun-30-2015	Jul-9-2015	Jul-22-2015		
Rating Type	CONTRO	PHYGEN	CONTRO	PHYGEN	PHYGEN	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority	VC							
Assessed By	HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	LEGLEITER	HENEGHAN		
Rating Timing	14 DAA	0 DAB	0 DAB	7 DAT	14 DAT	28 DAT		
Days After First/Last Applic.	- 13	- 27	- 27	- 6	- 15	- 28		
Trt-Eval Interval	13 DA-A	0 DA-C	0 DA-C	6 DA-C	15 DA-C	28 DA-C		
Plant-Eval Interval	13 DP-1	27 DP-1	27 DP-1	33 DP-1	42 DP-1	55 DP-1		
Days After Emergence	7 DE-1	21 DE-1	21 DE-1	27 DE-1	36 DE-1	49 DE-1		
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	1	2	3	4	5	6
8 CLASSIC	1.25 oz/a	A 108	80.0	0.0	20.0	15.0	2.0	65.0
BROADAXE	25 fl oz/a	B 205	85.0	0.0	20.0	15.0	2.0	65.0
FLEXSTAR GT 3.5	3.5 pt/a	B 306	85.0	0.0	15.0	15.0	2.0	80.0
MSO ULTRA	1 % v/v	B 411	90.0	0.0	15.0	15.0	2.0	65.0
N-PAK - AMS	2.5 % v/v	B						
	Mean =		85.0	0.0	17.5	15.0	2.0	68.8
9 BOUNDARY	1.75 pt/a	A 109	80.0	0.0	15.0	15.0	2.0	70.0
FLEXSTAR GT 3.5	3.5 pt/a	B 212	85.0	0.0	25.0	15.0	2.0	90.0
MSO ULTRA	1 % v/v	B 403	90.0	0.0	25.0	15.0	3.0	80.0
N-PAK - AMS	2.5 % v/v	B 502	85.0	0.0	30.0	15.0	2.0	80.0
	Mean =		85.0	0.0	23.8	15.0	2.3	80.0
10 VALOR XLT @ 3 OZ/A		110	85.0	0.0	10.0	15.0	2.0	60.0
VALOR	1.76 oz/a	A 303	90.0	0.0	25.0	15.0	3.0	70.0
CLASSIC	1.24 oz/a	A 401	90.0	0.0	20.0	15.0	2.0	55.0
FLEXSTAR GT 3.5	3.5 pt/a	B 508	85.0	0.0	30.0	15.0	3.0	60.0
MSO ULTRA	1 % v/v	B						
N-PAK - AMS	2.5 % v/v	B						
	Mean =		87.5	0.0	21.3	15.0	2.5	61.3
11 SONIC	4 oz/a	A 111	80.0	0.0	0.0	15.0	2.0	50.0
FLEXSTAR GT 3.5	3.5 pt/a	B 206	90.0	0.0	15.0	15.0	3.0	55.0
MSO ULTRA	1 % v/v	B 311	80.0	0.0	25.0	15.0	3.0	85.0
N-PAK - AMS	2.5 % v/v	B 408	85.0	0.0	20.0	10.0	3.0	90.0
	Mean =		83.8	0.0	15.0	13.8	2.8	70.0
12 ROUNDUP POWERMAX	22 fl oz/a	A 112	85.0	0.0	0.0	0.0	0.0	50.0
N-PAK - AMS	5 % v/v	A 208	85.0	0.0	20.0	0.0	0.0	50.0
ROUNDUP POWERMAX	22 fl oz/a	B 309	85.0	0.0	25.0	0.0	0.0	90.0
N-PAK - AMS	5 % v/v	B 503	85.0	0.0	20.0	0.0	0.0	80.0
	Mean =		85.0	0.0	16.3	0.0	0.0	67.5
13 ROUNDUP POWERMAX	22 fl oz/a	A 201	80.0	0.0	0.0	0.0	0.0	50.0
KAPRE COMPLY	5 % v/v	A 304	80.0	0.0	20.0	15.0	0.0	70.0
N-PAK - AMS	5 % v/v	A 406	80.0	0.0	25.0	0.0	0.0	85.0
ROUNDUP POWERMAX	22 fl oz/a	B 407	90.0	0.0	35.0	0.0	0.0	95.0
KAPRE COMPLY	5 % v/v	B						
N-PAK - AMS	5 % v/v	B						
	Mean =		82.5	0.0	20.0	3.8	0.0	75.0
14 Untreated Check		202	0.0	0.0	0.0	0.0	0.0	0.0
		302	0.0	0.0	0.0	0.0	0.0	0.0
		307	0.0	0.0	0.0	0.0	0.0	0.0
		409	0.0	0.0	10.0	0.0	0.0	0.0
	Mean =		0.0	0.0	2.5	0.0	0.0	0.0

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  
Rating Unit

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% = percent

Plant-Eval Interval

- 13 DP-1 = 1 GLXMA May-28-2015
- 27 DP-1 = 1 GLXMA May-28-2015
- 33 DP-1 = 1 GLXMA May-28-2015
- 42 DP-1 = 1 GLXMA May-28-2015
- 55 DP-1 = 1 GLXMA May-28-2015

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 Protocol ID: ZSOY80AD Investigator: Dr. Bill Johnson  
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 Sponsor Contact: S. Mroczkiewicz

Pest Type		W Weed		W Weed		W Weed			
Pest Code		ERICA		ERICA		ERICA			
Pest Scientific Name		Conyza canadens>		Conyza canadens>		Conyza canadens>			
Pest Name		Canada horsewe>		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		Jun-10-2015	Jun-24-2015	Jun-24-2015	Jun-30-2015	Jul-9-2015	Jul-22-2015		
Rating Type		CONTRO	PHYGEN	CONTRO	PHYGEN	PHYGEN	CONTRO		
Rating Unit		%	%	%	%	%	%		
Number of Subsamples		1	1	1	1	1	1		
Crop Stage Majority		VC	VC	VC	VC	VC	VC		
Assessed By		HENEGHAN	HENEGHAN	HENEGHAN	HENEGHAN	LEGLEITER	HENEGHAN		
Rating Timing		14 DAA	0 DAB	0 DAB	7 DAT	14 DAT	28 DAT		
Days After First/Last Applic.		- 13	- 27	- 27	- 6	- 15	- 28		
Trt-Eval Interval		13 DA-A	0 DA-C	0 DA-C	6 DA-C	15 DA-C	28 DA-C		
Plant-Eval Interval		13 DP-1	27 DP-1	27 DP-1	33 DP-1	42 DP-1	55 DP-1		
Days After Emergence		7 DE-1	21 DE-1	21 DE-1	27 DE-1	36 DE-1	49 DE-1		
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6
1	Untreated Check			0.0 c	0.0 a	0.0 c	0.0 b	0.0 b	0.0 b
2	BROADAXE FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	19 fl oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		81.3 ab	0.0 a	25.0 a	13.8 a	2.5 a	70.0 a
3	BROADAXE FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	25 fl oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		76.3 b	0.0 a	22.5 ab	15.0 a	2.8 a	75.0 a
4	BROADAXE TRICOR FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	19 fl oz/a A 5 oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		88.8 a	0.0 a	27.5 a	13.8 a	2.3 a	72.5 a
5	BROADAXE TRICOR FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	25 fl oz/a A 3 oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		85.0 ab	0.0 a	30.0 a	15.0 a	2.0 a	76.3 a
6	BROADAXE TRICOR FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	25 fl oz/a A 5 oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		86.3 a	0.0 a	30.0 a	15.0 a	2.0 a	72.5 a
7	CLASSIC BROADAXE FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	1.25 oz/a A 19 fl oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		83.6 ab	0.0 a	26.3 a	13.8 a	2.3 a	67.5 a
8	CLASSIC BROADAXE FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	1.25 oz/a A 25 fl oz/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		85.0 ab	0.0 a	17.5 abc	15.0 a	2.0 a	68.8 a
9	BOUNDARY FLEXSTAR GT 3.5 MSO ULTRA N-PAK - AMS	1.75 pt/a A 3.5 pt/a B 1 % v/v B 2.5 % v/v B		85.0 ab	0.0 a	23.8 ab	15.0 a	2.3 a	80.0 a

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.  
 Missing data estimates are included in columns: Yates=1

# Purdue University Weed Science

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	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	Jun-10-2015	Jun-24-2015	Jun-24-2015	Jun-30-2015	Jul-9-2015	Jul-22-2015				
Rating Type	CONTRO	PHYGEN	CONTRO	PHYGEN	PHYGEN	CONTRO				
Rating Unit	%	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	VC									
Assessed By	HENEZHAN	HENEZHAN	HENEZHAN	HENEZHAN	LEGLEITER	HENEZHAN				
Rating Timing	14 DAA	0 DAB	0 DAB	7 DAT	14 DAT	28 DAT				
Days After First/Last Applic.	- 13	- 27	- 27	- 6	- 15	- 28				
Trt-Eval Interval	13 DA-A	0 DA-C	0 DA-C	6 DA-C	15 DA-C	28 DA-C				
Plant-Eval Interval	13 DP-1	27 DP-1	27 DP-1	33 DP-1	42 DP-1	55 DP-1				
Days After Emergence	7 DE-1	21 DE-1	21 DE-1	27 DE-1	36 DE-1	49 DE-1				
Trt No.	Treatment Name	Rate	Appl Unit	Code	1	2	3	4	5	6
10	VALOR XLT @ 3 OZ/A				87.5 a	0.0 a	21.3 abc	15.0 a	2.5 a	61.3 a
	VALOR	1.76 oz/a	A							
	CLASSIC	1.24 oz/a	A							
	FLEXSTAR GT 3.5	3.5 pt/a	B							
	MSO ULTRA	1 % v/v	B							
	N-PAK - AMS	2.5 % v/v	B							
11	SONIC	4 oz/a	A		83.8 ab	0.0 a	15.0 abc	13.8 a	2.8 a	70.0 a
	FLEXSTAR GT 3.5	3.5 pt/a	B							
	MSO ULTRA	1 % v/v	B							
	N-PAK - AMS	2.5 % v/v	B							
12	ROUNDUP POWERMAX	22 fl oz/a	A		85.0 ab	0.0 a	16.3 abc	0.0 b	0.0 b	67.5 a
	N-PAK - AMS	5 % v/v	A							
	ROUNDUP POWERMAX	22 fl oz/a	B							
	N-PAK - AMS	5 % v/v	B							
13	ROUNDUP POWERMAX	22 fl oz/a	A		82.5 ab	0.0 a	20.0 abc	3.8 b	0.0 b	75.0 a
	KAPRE COMPLY	5 % v/v	A							
	N-PAK - AMS	5 % v/v	A							
	ROUNDUP POWERMAX	22 fl oz/a	B							
	KAPRE COMPLY	5 % v/v	B							
	N-PAK - AMS	5 % v/v	B							
14	Untreated Check				0.0 c	0.0 a	2.5 bc	0.0 b	0.0 b	0.0 b
LSD P=.05		5.62	0.00		13.83	3.51	0.59	15.27		
Standard Deviation		3.93	0.00		9.68	2.46	0.41	10.69		
CV		5.45	0.0		48.82	23.12	24.68	17.47		
Bartlett's X2		6.322	0.0		16.998	7.457	1.387	18.378		
P(Bartlett's X2)		0.788	.		0.108	0.114	0.986	0.073		
Skewness		-1.9759*	.		-0.004	-0.9724*	-0.4849	-1.4785*		
Kurtosis		2.1482*	.		0.1478	-0.9963	-1.2217	1.1051		
Replicate F		0.516	0.000		0.439	0.469	2.373	1.901		
Replicate Prob(F)		0.6735	1.0000		0.7266	0.7058	0.0850	0.1455		
Treatment F		244.031	0.000		3.593	27.535	29.665	24.238		
Treatment Prob(F)		0.0001	1.0000		0.0010	0.0001	0.0001	0.0001		

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

Rating Unit  
% = percent

Plant-Eval Interval  
13 DP-1 = 1 GLXMA May-28-2015  
27 DP-1 = 1 GLXMA May-28-2015  
33 DP-1 = 1 GLXMA May-28-2015  
42 DP-1 = 1 GLXMA May-28-2015  
55 DP-1 = 1 GLXMA May-28-2015