

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

General Trial Information

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

Discipline: H herbicide
Trial Status: E established
Initiation Date: Apr-14-2016

Trial Location

City: Butlerville **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47723

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:

Evaluate fit and performance of Scepter combinations applied early pre-plant (14 to 21 days before planting) for efficacy and safety in soybeans.

Field Prep./Maintenance:

To remove existing vegetation, overspray plots with Roundup Ready @ 32 oz/a or 2,4-D @ 1 pt/a + AMS6 weeks prior to planting.

Treatment Timing: Apply as broadcast foliar spray at 14-21 days before planting.

- **Record weed stages, heights, and densities at application.**

Data to Collect:

- 1. Application:** Record weed stages, heights, and densities at application.
- 2. Crop safety:** Visually estimate crop injury (0-100%). Record for each plot at 7, 14, and 28 days after treatment (DAT).
- 3. Weed control:** Visually estimate weed control as % control (0-100%) for each weed species present or report weed densities if preferred. Add other columns to data file as needed. Record for each plot at 14, 28, and 42 days after treatment (DAT). Base on weeds present in Untreated Control within the block and in the running checks (2 rows on each side of plot).

Contacts

Study Director: Dustin Johnson **Title:** Research Associate
Organization: Purdue University
Address: 915 West State Street **Phone No.:** (765) 496-6690
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** john1357@purdue.edu
Country: USA United States

Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address: 915 W. State Street
City+State/Prov: West Lafayette, IN
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max
Variety: ASGROW 2933 (A1037420)
Description: ROUND UP READY

BBCH Scale: BSOY

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: SLIWET slightly wet, moist

Planting Date: May-26-2016
Planting Method: DIRDRI direct drilled

Emergence Date: May-31-2016

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Pest Description

Pest 1 Type: W **Code:** AMBEL *Ambrosia artemisiifolia*
Common Name: Common ragweed

Pest 2 Type: W **Code:** XANOR *Xanthium orientale*
Common Name: Common cocklebur

Pest 3 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300 FT² **Treatments:** 16 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Maintenance Product Name	Form Conc	Form Type	Rate	Rate Unit
1.	Apr-14-2016	Roundup Power Max	4.5	SL	32	FL OZ/A
2.	Apr-14-2016	Shredder 2,4-D LV-4	3.8	EC	1	PT/A
3.	Apr-14-2016	N-Pak AMS	3.4	SL	2.5	% V/V
4.	Jul-20-2016	Roundup Power Max	4.5	SL	32	FL OZ/A
5.	Jul-20-2016	Shredder 2,4-D LV-4	3.8	EC	1	PT/A
6.	Jul-20-2016	N-Pak AMS	3.4	SL	2.5	% V/V

Field Prep./Maintenance:

4/14/16 Sprayed Burndown application as specified by AMVAC to kill winter annuals and grasses. Used Rup Power Max @ 32 oz/a and 2,4-D LV-4 @ 1 pt/a with AMS @ 2.5% v/v. T. Legleiter applied application.

7/20/16 Sprayed post application to kill/hold back overgrown broadleaves and grasses. Used Rup Power Max @ 32 oz/a with AMS @ 2.5% v/v. D. Johnson applied application.

Soil Description

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

Application Description

	A
Application Date:	May-6-2016
Appl. Start Time:	2:40 PM
Appl. Stop Time:	3:25 PM
Application Method:	SPRAY
Application Timing:	A
Application Placement:	BROADC
Applied By:	M. ZIMMER
Air Temperature, Unit:	68 F
% Relative Humidity:	39
Wind Velocity, Unit:	10 MPH
Wind Direction:	NW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	64.4 F
Soil Moisture:	SLIWET
% Cloud Cover:	5
Next Moisture Occurred On:	May-7-2016

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Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMBEL W
Stage Majority, Percent:	10
Stage Minimum, Percent:	10
Stage Maximum, Percent:	12
Height, Unit:	1 IN
Height Minimum, Maximum:	0 2
Density, Unit:	27 YD2
Pest 2 Code, Type, Scale:	XANOR W
Stage Majority, Percent:	10
Stage Minimum, Percent:	10
Stage Maximum, Percent:	12
Height, Unit:	0.5 IN
Height Minimum, Maximum:	0 1
Density, Unit:	9 YD2
Pest 3 Code, Type, Scale:	SETFA W
Stage Majority, Percent:	12
Stage Minimum, Percent:	11
Stage Maximum, Percent:	12
Height, Unit:	0.25 IN
Height Minimum, Maximum:	0 1
Density, Unit:	108 YD2

Application Equipment

	A
Appl. Equipment:	CO2 BACKPACK
Equipment Type:	BACSPR
Operation Pressure, Unit:	18 PSI
Nozzle Type:	FLAFXR
Nozzle Size:	XR11002
Nozzle Spacing, Unit:	15 IN
Nozzles/Row:	8
Boom Length, Unit:	10 FT
Boom Height, Unit:	17 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	1.8 liters
Propellant:	COMCO2

Date	By	Notes
Apr-14-2016	D. JOHNSON	Setup trial
Apr-14-2016	D. JOHNSON	Sprayed burndown application for clean slate pre-trial.
May-6-2016	M. ZIMMER	Sprayed company treatment application A: Trial was mostly clean from previous burndown. Weeds species were emerging. Columns 101-012/501-502 were weedier.
May-6-2016	M. ZIMMER	Switch plots 501 & 601. 601 now an untreated check. 501 now is treatment 5. Sprayed 601 not 501.
May-18-2016	D. JOHNSON	Rated 14 DAT
May-26-2016	T. LEGLIETE	Planted trial.
Jun-5-2016	T. LEGLIETE	Rated 7 DAP/28DAT: Did not see any crop injury at this time.

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Jun-14-2016 D. JOHNSON Rated 14 DAT/42 DAT

Trial Comments

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	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
1	Untreated Check								101	402	607	701
2	VALOR SX	51 %W/W		WG	3 oz/a		A	2.696 g/mx	102	307	604	803
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
3	VALOR XLT	40 %W/W		WG	5 oz/a		A	4.493 g/mx	103	302	505	802
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
4	VALOR SX	51 %W/W		WG	3 oz/a		A	2.696 g/mx	104	306	506	806
	SCEPTER	70 %W/W		WG	2.1 oz/a		A	1.887 g/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
5	VALOR SX	51 %W/W		WG	3 oz/a		A	2.696 g/mx	105	408	501	705
	DUAL MAGNUM	7.62 LB/GAL		EC	20 fl oz/a		A	18.75 ml/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
6	VALOR SX	51 %W/W		WG	3 oz/a		A	2.696 g/mx	106	404	608	706
	DUAL MAGNUM	7.62 LB/GAL		EC	20 fl oz/a		A	18.75 ml/mx				
	SCEPTER	70 %W/W		WG	2.1 oz/a		A	1.887 g/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
7	TRIVENCE @ 10 oz/a								107	405	503	702
	CLASSIC	25 %W/W		WG	0.39 oz ai/a		A	1.402 g/mx				
	VALOR	51 %W/W		WG	1.28 oz ai/a		A	2.256 g/mx				
	SENCOR	75 %W/W		WG	4.46 oz ai/a		A	5.344 g/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
8	VALOR SX	51 %W/W		WG	2.5 oz/a		A	2.247 g/mx	108	308	504	704
	SENCOR	75 %W/W		WG	0.5 lb/a		A	7.19 g/mx				
	SCEPTER	70 %W/W		WG	2.1 oz/a		A	1.887 g/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
9	SPARTAN 4F	4 LB/GAL		SL	8 fl oz/a		A	7.5 ml/mx	201	401	508	804
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
10	AUTHORITY XL	70 %W/W		WG	6.45 oz/a		A	5.797 g/mx	202	406	602	703
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
11	SPARTAN 4F	4 LB/GAL		SL	8 fl oz/a		A	7.5 ml/mx	203	304	606	707
	SCEPTER	70 %W/W		WG	2.1 oz/a		A	1.887 g/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
12	AUTHORITY ELITE	7 LB/GAL		SL	24 fl oz/a		A	22.5 ml/mx	204	305	507	807
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 ml/mx				
13	AUTHORITY ELITE	7 LB/GAL		SL	24 fl oz/a		A	22.5 ml/mx	205	301	603	708
	SCEPTER	70 %W/W		WG	2.1 oz/a		A	1.887 g/mx				
	COC	100 %		OS	1 % v/v		A	18.0 ml/mx				
	N-PAK AMS	3.4 LBA/GAL		SL	2.5 % v/v		A	45.0 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	Rate Unit	Appl Code	Amt Product to Measure	Rep 1	Rep 2	Rep 3	Rep 4
14	AUTHORITY MTZ	45 %W/W	WG	16 oz/a	A	14.38 g/mx	206	407	502	801		
	COC	100 %	OS	1 % v/v	A	18.0 ml/mx						
	N-PAK AMS	3.4 LBA/GAL	SL	2.5 % v/v	A	45.0 ml/mx						
15	AUTHORITY MTZ	45 %W/W	WG	16 oz/a	A	14.38 g/mx	207	403	605	805		
	SENCOR	75 %W/W	WG	0.14 lb/a	A	2.013 g/mx						
	SCEPTER	70 %W/W	WG	2.1 oz/a	A	1.887 g/mx						
	COC	100 %	OS	1 % v/v	A	18.0 ml/mx						
	N-PAK AMS	3.4 LBA/GAL	SL	2.5 % v/v	A	45.0 ml/mx						
16	Untreated Check						208	303	601	808		

Sort Order: Replicate 1

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
16.289	g	VALOR SX	51	WG	
314.966	ml	COC	100	OS	
787.414	ml	N-PAK AMS	3.4	SL	
5.617	g	VALOR XLT	40	WG	
14.154	g	SCEPTER	70	WG	
46.875	ml	DUAL MAGNUM	7.62	EC	
1.752	g	CLASSIC	25	WG	
2.819	g	VALOR	51	WG	
18.184	g	SENCOR	75	WG	
18.750	ml	SPARTAN 4F	4	SL	
7.246	g	AUTHORITY XL	70	WG	
56.250	ml	AUTHORITY ELITE	7	SL	
35.948	g	AUTHORITY MTZ	45	WG	

* '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	W Weed	W Weed
Pest Code	AMBEL	XANOR	AMBEL	XANOR	SETFA
Pest Scientific Name	Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi
Pest Name	Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail
Crop Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Part Rated					
Rating Date	May-18-2016	May-18-2016	Jun-5-2016	Jun-5-2016	Jun-5-2016
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	T. LEGLEITE	T. LEGLEITE	T. LEGLEITE
SE Group No.	11	2	3	4	5
Rating Timing					
Days After First/Last Applic.	12 12	12 12	30 30	30 30	30 30
Trt-Eval Interval	12 DA-A	12 DA-A	30 DA-A	30 DA-A	30 DA-A
Plant-Eval Interval	-8 DP-1	-8 DP-1	10 DP-1	10 DP-1	10 DP-1
Days After Emergence	-13 DE-1	-13 DE-1	5 DE-1	5 DE-1	5 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl	Rate	Appl
No.	Name	Rate Unit	Code Plot	Rate Unit	Code Plot
1	Untreated Check		101		0
			402		0
					0
					0
					0
					0

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 Sponsor Contact: AMVAC-Joe Argentine

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code	AMBEL	XANOR	AMBEL	XANOR	SETFA		
Pest Scientific Name	Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi		
Pest Name	Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail		
Crop Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Part Rated							
Rating Date	May-18-2016	May-18-2016	Jun-5-2016	Jun-5-2016	Jun-5-2016		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	T. LEGLEITE	T. LEGLEITE	T. LEGLEITE		
SE Group No.	11	2	3	4	5		
Rating Timing							
Days After First/Last Applic.	12 12	12 12	30 30	30 30	30 30		
Trt-Eval Interval	12 DA-A	12 DA-A	30 DA-A	30 DA-A	30 DA-A		
Plant-Eval Interval	-8 DP-1	-8 DP-1	10 DP-1	10 DP-1	10 DP-1		
Days After Emergence	-13 DE-1	-13 DE-1	5 DE-1	5 DE-1	5 DE-1		
ARM Action Codes	P	P	P	P	P		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code Plot	1	2	3	4	5
		607	0	0	0	0	0
		701	0	0	0	0	0
		Mean =	0	0	0	0	0
2 VALOR SX	3 oz/a	A 102	100	100	60	60	80
COC	1 % v/v	A 307	100	100	95	90	100
N-PAK AMS	2.5 % v/v	A 604	100	100	90	97	95
		803	100	100	95	95	90
		Mean =	100	100	85	86	91
3 VALOR XLT	5 oz/a	A 103	100	100	100	100	100
COC	1 % v/v	A 302	100	100	90	100	100
N-PAK AMS	2.5 % v/v	A 505	100	100	100	100	100
		802	100	100	100	100	97
		Mean =	100	100	98	100	99
4 VALOR SX	3 oz/a	A 104	100	100	100	97	100
SCEPTER	2.1 oz/a	A 306	100	100	100	100	97
COC	1 % v/v	A 506	100	100	100	100	100
N-PAK AMS	2.5 % v/v	A 806	100	100	100	100	100
		Mean =	100	100	100	99	99
5 VALOR SX	3 oz/a	A 105	100	100	100	90	100
DUAL MAGNUM	20 fl oz/a	A 408	100	100	100	95	97
COC	1 % v/v	A 501	100	100	70	50	80
N-PAK AMS	2.5 % v/v	A 705	100	100	100	97	100
		Mean =	100	100	93	83	94
6 VALOR SX	3 oz/a	A 106	100	100	100	90	100
DUAL MAGNUM	20 fl oz/a	A 404	100	100	100	100	100
SCEPTER	2.1 oz/a	A 608	100	100	100	97	100
COC	1 % v/v	A 706	100	100	100	100	100
N-PAK AMS	2.5 % v/v	A					
		Mean =	100	100	100	97	100
7 TRIVENCE @ 10 oz/a		107	100	100	90	100	100
CLASSIC	0.39 oz ai/a	A 405	100	100	100	100	100
VALOR	1.28 oz ai/a	A 503	100	100	100	100	100
SENCOR	4.46 oz ai/a	A 702	100	100	97	100	90
COC	1 % v/v	A					
N-PAK AMS	2.5 % v/v	A					
		Mean =	100	100	97	100	98

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				W Weed AMBEL	W Weed XANOR	W Weed AMBEL	W Weed XANOR	W Weed SETFA
				Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi
				Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail
Pest Type								
Pest Code								
Pest Scientific Name								
Pest Name								
Crop Code								
BBCH Scale								
Crop Scientific Name								
Crop Name								
Part Rated								
Rating Date	May-18-2016		May-18-2016		Jun-5-2016		Jun-5-2016	
Rating Type	CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit	%		%		%		%	
Number of Subsamples	1		1		1		1	
Assessed By	D. JOHNSON		D. JOHNSON		T. LEGLEITE		T. LEGLEITE	
SE Group No.	11		2		3		4	
Rating Timing								
Days After First/Last Applic.	12 12		12 12		30 30		30 30	
Trt-Eval Interval	12 DA-A		12 DA-A		30 DA-A		30 DA-A	
Plant-Eval Interval	-8 DP-1		-8 DP-1		10 DP-1		10 DP-1	
Days After Emergence	-13 DE-1		-13 DE-1		5 DE-1		5 DE-1	
ARM Action Codes	P		P		P		P	
Number of Decimals	0		0		0		0	
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code Plot	1	2	3	4	5	
8 VALOR SX	2.5 oz/a	A 108	100	100	100	100	100	
SENCOR	0.5 lb/a	A 308	100	100	100	95	95	
SCEPTER	2.1 oz/a	A 504	100	100	100	100	100	
COC	1 % v/v	A 704	100	100	100	100	100	
N-PAK AMS	2.5 % v/v	A						
		Mean =	100	100	100	99	99	
9 SPARTAN 4F	8 fl oz/a	A 201	95	100	50	50	70	
COC	1 % v/v	A 401	95	98	50	50	80	
N-PAK AMS	2.5 % v/v	A 508	99	100	60	90	80	
		804	100	100	95	97	97	
		Mean =	97	100	64	72	82	
10 AUTHORITY XL	6.45 oz/a	A 202	90	98	50	90	97	
COC	1 % v/v	A 406	100	100	90	100	100	
N-PAK AMS	2.5 % v/v	A 602	100	100	90	97	97	
		703	100	100	97	100	100	
		Mean =	98	100	82	97	99	
11 SPARTAN 4F	8 fl oz/a	A 203	100	100	90	90	97	
SCEPTER	2.1 oz/a	A 304	100	100	97	100	97	
COC	1 % v/v	A 606	100	100	90	100	100	
N-PAK AMS	2.5 % v/v	A 707	100	100	100	100	100	
		Mean =	100	100	94	98	99	
12 AUTHORITY ELITE	24 fl oz/a	A 204	100	100	85	95	100	
COC	1 % v/v	A 305	100	100	90	95	97	
N-PAK AMS	2.5 % v/v	A 507	100	100	80	90	95	
		807	100	100	97	100	97	
		Mean =	100	100	88	95	97	
13 AUTHORITY ELITE	24 fl oz/a	A 205	100	100	100	100	97	
SCEPTER	2.1 oz/a	A 301	100	100	90	80	80	
COC	1 % v/v	A 603	100	100	100	100	95	
N-PAK AMS	2.5 % v/v	A 708	100	100	95	100	100	
		Mean =	100	100	96	95	93	
14 AUTHORITY MTZ	16 oz/a	A 206	100	100	95	90	100	
COC	1 % v/v	A 407	100	100	80	90	100	
N-PAK AMS	2.5 % v/v	A 502	100	100	70	70	95	
		801	100	100	80	60	90	
		Mean =	100	100	81	78	96	
15 AUTHORITY MTZ	16 oz/a	A 207	100	99	85	95	97	
SENCOR	0.14 lb/a	A 403	100	100	100	97	100	
SCEPTER	2.1 oz/a	A 605	100	100	100	100	100	
COC	1 % v/v	A 805	100	100	97	100	100	
N-PAK AMS	2.5 % v/v	A						
		Mean =	100	100	96	98	99	

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

	W Weed AMBEL	W Weed XANOR	W Weed AMBEL	W Weed XANOR	W Weed SETFA
Pest Type	Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi
Pest Code	Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail
Pest Scientific Name					
Pest Name					
Crop Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Part Rated					
Rating Date	May-18-2016	May-18-2016	Jun-5-2016	Jun-5-2016	Jun-5-2016
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	T. LEGLEITE	T. LEGLEITE	T. LEGLEITE
SE Group No.	11	2	3	4	5
Rating Timing					
Days After First/Last Applic.	12 12	12 12	30 30	30 30	30 30
Trt-Eval Interval	12 DA-A	12 DA-A	30 DA-A	30 DA-A	30 DA-A
Plant-Eval Interval	-8 DP-1	-8 DP-1	10 DP-1	10 DP-1	10 DP-1
Days After Emergence	-13 DE-1	-13 DE-1	5 DE-1	5 DE-1	5 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment					
No. Name	Rate Unit	Appl Code Plot			
16 Untreated Check			1	2	3
	208		0	0	0
	303		0	0	0
	601		0	0	0
	808		0	0	0
	Mean =		0	0	0

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed	W Weed	W Weed	
Pest Code		AMBEL	XANOR	SETFA	
Pest Scientific Name		Ambrosia artem>	Xanthium orien>	Setaria faberi	
Pest Name		Common ragweed	Common cockleb>	Giant foxtail	
Crop Code	GLXMA				GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Part Rated	PLAEME -				
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. LEGLIETE	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
SE Group No.	6	7	8	9	10
Rating Timing	A1				
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	6	7	8
1 Untreated Check	101	0	0	0	0
	402	0	0	0	0

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed	W Weed	W Weed	
Pest Code		AMBEL	XANOR	SETFA	
Pest Scientific Name		Ambrosia artem>	Xanthium orien>	Setaria faberi	
Pest Name		Common ragweed	Common cockleb>	Giant foxtail	
Crop Code	GLXMA				GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Part Rated	PLAEME -				
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. LEGLIETE	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
SE Group No.	6	7	8	9	10
Rating Timing	A1				
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	6	7	8
		607	0	0	0
		701	0	0	0
		Mean =	0	0	0
2 VALOR SX	3 oz/a	A 102	0	60	20
COC	1 % v/v	A 307	0	90	80
N-PAK AMS	2.5 % v/v	A 604	0	90	90
		803	0	90	85
		Mean =	0	83	69
3 VALOR XLT	5 oz/a	A 103	0	95	95
COC	1 % v/v	A 302	0	90	95
N-PAK AMS	2.5 % v/v	A 505	0	100	98
		802	0	95	95
		Mean =	0	95	96
4 VALOR SX	3 oz/a	A 104	0	95	95
SCEPTER	2.1 oz/a	A 306	0	95	95
COC	1 % v/v	A 506	0	95	95
N-PAK AMS	2.5 % v/v	A 806	0	100	98
		Mean =	0	96	96
5 VALOR SX	3 oz/a	A 105	0	98	80
DUAL MAGNUM	20 fl oz/a	A 408	0	95	90
COC	1 % v/v	A 501	0	60	20
N-PAK AMS	2.5 % v/v	A 705	0	98	90
		Mean =	0	88	70
6 VALOR SX	3 oz/a	A 106	0	99	90
DUAL MAGNUM	20 fl oz/a	A 404	0	95	95
SCEPTER	2.1 oz/a	A 608	0	98	90
COC	1 % v/v	A 706	0	100	95
N-PAK AMS	2.5 % v/v	A			
		Mean =	0	98	93
7 TRIVENCE @ 10 oz/a		107	0	85	98
CLASSIC	0.39 oz ai/a	A 405	0	98	98
VALOR	1.28 oz ai/a	A 503	0	98	98
SENCOR	4.46 oz ai/a	A 702	0	90	95
COC	1 % v/v	A			
N-PAK AMS	2.5 % v/v	A			
		Mean =	0	93	97
			0		92
					0

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed	W Weed	W Weed	
Pest Code		AMBEL	XANOR	SETFA	
Pest Scientific Name		Ambrosia artem>	Xanthium orien>	Setaria faberi	
Pest Name		Common ragweed	Common cockleb>	Giant foxtail	
Crop Code	GLXMA				GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Part Rated	PLAEME -				
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. LEGLIETE	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
SE Group No.	6	7	8	9	10
Rating Timing	A1				
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code Plot	6	7	8
8 VALOR SX	2.5 oz/a	A 108	0	95	98
SENCOR	0.5 lb/a	A 308	0	99	95
SCEPTER	2.1 oz/a	A 504	0	100	99
COC	1 % v/v	A 704	0	99	97
N-PAK AMS	2.5 % v/v	A			
		Mean =	0	98	97
9 SPARTAN 4F	8 fl oz/a	A 201	0	40	40
COC	1 % v/v	A 401	0	20	20
N-PAK AMS	2.5 % v/v	A 508	0	60	85
		804	0	90	70
		Mean =	0	53	59
10 AUTHORITY XL	6.45 oz/a	A 202	0	40	90
COC	1 % v/v	A 406	0	70	95
N-PAK AMS	2.5 % v/v	A 602	0	80	90
		703	0	92	95
		Mean =	0	71	93
11 SPARTAN 4F	8 fl oz/a	A 203	0	90	90
SCEPTER	2.1 oz/a	A 304	0	95	98
COC	1 % v/v	A 606	0	85	90
N-PAK AMS	2.5 % v/v	A 707	0	95	95
		Mean =	0	91	93
12 AUTHORITY ELITE	24 fl oz/a	A 204	0	80	90
COC	1 % v/v	A 305	0	85	90
N-PAK AMS	2.5 % v/v	A 507	0	75	80
		807	0	85	95
		Mean =	0	81	89
13 AUTHORITY ELITE	24 fl oz/a	A 205	0	95	95
SCEPTER	2.1 oz/a	A 301	0	85	75
COC	1 % v/v	A 603	0	98	95
N-PAK AMS	2.5 % v/v	A 708	0	85	90
		Mean =	0	91	89
14 AUTHORITY MTZ	16 oz/a	A 206	0	90	80
COC	1 % v/v	A 407	0	60	80
N-PAK AMS	2.5 % v/v	A 502	0	75	70
		801	0	50	30
		Mean =	0	69	65
15 AUTHORITY MTZ	16 oz/a	A 207	0	85	85
SENCOR	0.14 lb/a	A 403	0	95	90
SCEPTER	2.1 oz/a	A 605	0	98	90
COC	1 % v/v	A 805	0	85	95
N-PAK AMS	2.5 % v/v	A			
		Mean =	0	91	90

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed	W Weed	W Weed	
Pest Code		AMBEL	XANOR	SETFA	
Pest Scientific Name		Ambrosia artem>	Xanthium orien>	Setaria faberi	
Pest Name		Common ragweed	Common cockleb>	Giant foxtail	
Crop Code	GLXMA				GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Part Rated	PLAEME -				
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. LEGLIETE	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
SE Group No.	6	7	8	9	10
Rating Timing	A1				
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code Plot	6	7	8	9
16 Untreated Check	208	0	0	0	0
	303	0	0	0	0
	601	0	0	0	0
	808	0	0	0	0
	Mean =	0	0	0	0

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type
 W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
 AMBEL, Ambrosia artemisiifolia, = US
 XANOR, Xanthium orientale, = US
 SETFA, Setaria faberi, = US
Crop Code
 GLXMA, BSOY, Glycine max, = US
Part Rated
 PLAEME = plant - emerged
Rating Type
 CONTRO = control / burndown or knockdown
 PHYGEN = phytotoxicity - general / injury
Rating Unit
 % = percent
Rating Timing
 A1 = 1st Assessment According to Trial Schedule
Plant-Eval Interval
 -8 DP-1 = 1 GLXMA May-26-2016
 10 DP-1 = 1 GLXMA May-26-2016
 19 DP-1 = 1 GLXMA May-26-2016
ARM Action Codes
 P = Rating scale of 0 to 100 (e.g. % control or injury)

Pest Type	W Weed AMBEL	W Weed XANOR	W Weed AMBEL	W Weed XANOR	W Weed SETFA		
Pest Code	Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi		
Pest Scientific Name	Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail		
Pest Name							
Crop Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Part Rated							
Rating Date	May-18-2016	May-18-2016	Jun-5-2016	Jun-5-2016	Jun-5-2016		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Assessed By	D. JOHNSON	D. JOHNSON	T. LEGLEITE	T. LEGLEITE	T. LEGLEITE		
SE Group No.	11	2	3	4	5		
Rating Timing							
Days After First/Last Applic.	12 12	12 12	30 30	30 30	30 30		
Trt-Eval Interval	12 DA-A	12 DA-A	30 DA-A	30 DA-A	30 DA-A		
Plant-Eval Interval	-8 DP-1	-8 DP-1	10 DP-1	10 DP-1	10 DP-1		
Days After Emergence	-13 DE-1	-13 DE-1	5 DE-1	5 DE-1	5 DE-1		
ARM Action Codes	P	P	P	P	P		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	1	2	3	4	5
No. Name	Rate Unit	Code					
1 Untreated Check			0 b	0 b	0 c	0 c	0 c
2 VALOR SX	3 oz/a	A	100 a	100 a	85 a	86 ab	91 a
COC	1 % v/v	A					
N-PAK AMS	2.5 % v/v	A					
3 VALOR XLT	5 oz/a	A	100 a	100 a	98 a	100 a	99 a
COC	1 % v/v	A					
N-PAK AMS	2.5 % v/v	A					
4 VALOR SX	3 oz/a	A	100 a	100 a	100 a	99 a	99 a
SCEPTER	2.1 oz/a	A					
COC	1 % v/v	A					
N-PAK AMS	2.5 % v/v	A					
5 VALOR SX	3 oz/a	A	100 a	100 a	93 a	83 ab	94 a
DUAL MAGNUM	20 fl oz/a	A					
COC	1 % v/v	A					
N-PAK AMS	2.5 % v/v	A					
6 VALOR SX	3 oz/a	A	100 a	100 a	100 a	97 a	100 a
DUAL MAGNUM	20 fl oz/a	A					
SCEPTER	2.1 oz/a	A					
COC	1 % v/v	A					
N-PAK AMS	2.5 % v/v	A					

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type	W Weed AMBEL	W Weed XANOR	W Weed AMBEL	W Weed XANOR	W Weed SETFA
Pest Code	Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi
Pest Scientific Name	Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail
Pest Name					
Crop Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Part Rated					
Rating Date	May-18-2016	May-18-2016	Jun-5-2016	Jun-5-2016	Jun-5-2016
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	T. LEGLEITE	T. LEGLEITE	T. LEGLEITE
SE Group No.	11	2	3	4	5
Rating Timing					
Days After First/Last Applic.	12 12	12 12	30 30	30 30	30 30
Trt-Eval Interval	12 DA-A	12 DA-A	30 DA-A	30 DA-A	30 DA-A
Plant-Eval Interval	-8 DP-1	-8 DP-1	10 DP-1	10 DP-1	10 DP-1
Days After Emergence	-13 DE-1	-13 DE-1	5 DE-1	5 DE-1	5 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment					
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
	1	2	3	4	5
7 TRIVENCE @ 10 oz/a	100 a	100 a	97 a	100 a	98 a
CLASSIC	0.39 oz ai/a A				
VALOR	1.28 oz ai/a A				
SENCOR	4.46 oz ai/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
8 VALOR SX	2.5 oz/a A	100 a	100 a	99 a	99 a
SENCOR	0.5 lb/a A				
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
9 SPARTAN 4F	8 fl oz/a A	100 a	100 a	64 b	72 b
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
10 AUTHORITY XL	6.45 oz/a A	98 a	100 a	82 a	97 a
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
11 SPARTAN 4F	8 fl oz/a A	100 a	100 a	94 a	98 a
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
12 AUTHORITY ELITE	24 fl oz/a A	100 a	100 a	88 a	95 a
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
13 AUTHORITY ELITE	24 fl oz/a A	100 a	100 a	96 a	95 a
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
14 AUTHORITY MTZ	16 oz/a A	100 a	100 a	81 a	78 ab
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
15 AUTHORITY MTZ	16 oz/a A	100 a	100 a	96 a	98 a
SENCOR	0.14 lb/a A				
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

	W Weed AMBEL	W Weed XANOR	W Weed AMBEL	W Weed XANOR	W Weed SETFA
Pest Type	Ambrosia artem>	Xanthium orien>	Ambrosia artem>	Xanthium orien>	Setaria faberi
Pest Code	Common ragweed	Common cockleb>	Common ragweed	Common cockleb>	Giant foxtail
Pest Scientific Name					
Pest Name					
Crop Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Part Rated					
Rating Date	May-18-2016	May-18-2016	Jun-5-2016	Jun-5-2016	Jun-5-2016
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	D. JOHNSON	D. JOHNSON	T. LEGLEITE	T. LEGLEITE	T. LEGLEITE
SE Group No.	11	2	3	4	5
Rating Timing					
Days After First/Last Applic.	12 12	12 12	30 30	30 30	30 30
Trt-Eval Interval	12 DA-A	12 DA-A	30 DA-A	30 DA-A	30 DA-A
Plant-Eval Interval	-8 DP-1	-8 DP-1	10 DP-1	10 DP-1	10 DP-1
Days After Emergence	-13 DE-1	-13 DE-1	5 DE-1	5 DE-1	5 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment					
No. Name	1	2	3	4	5
Rate					
Unit					
Appl Code					
16 Untreated Check	0 b	0 b	0 c	0 c	0 c
LSD P=.05	2.0	0.5	14.2	15.4	7.7
Standard Deviation	1.4	0.4	10.0	10.8	5.4
CV	1.59	0.43	12.52	13.33	6.4
Bartlett's X2	1.149	1.541	19.692	42.777	37.275
P(Bartlett's X2)	0.284	0.463	0.032*	0.001*	0.001*
Skewness	-2.3135*	-2.322*	-1.7622*	-1.8242*	-2.1651*
Kurtosis	3.4769*	3.5014*	1.7076*	1.8347*	3.0242*
Replicate F	1.518	1.000	2.445	0.939	0.269
Replicate Prob(F)	0.2229	0.4016	0.0762	0.4298	0.8476
Treatment F	2398.650	33126.811	42.519	36.808	151.842
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed AMBEL Ambrosia artem> Common ragweed	W Weed XANOR Xanthium orien> Common cockleb>	W Weed SETFA Setaria faberi Giant foxtail				
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	PLAEME -							
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN			
Rating Unit	%	%	%	%	%			
Number of Subsamples Assessed By	1 T. LEGLIETE	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON	1 D. JOHNSON			
SE Group No.	6	7	8	9	10			
Rating Timing	A1							
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39			
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A			
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1			
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1			
ARM Action Codes	P	P	P	P	P			
Number of Decimals	0	0	0	0	0			
Trt No.	Treatment Name	Rate	Appl Code	6	7	8	9	10
1	Untreated Check			0 -	0 c	0 b	0 c	0 -
2	VALOR SX COC N-PAK AMS	3 oz/a 1 % v/v 2.5 % v/v	A A A	0 -	83 a	69 a	80 ab	0 -
3	VALOR XLT COC N-PAK AMS	5 oz/a 1 % v/v 2.5 % v/v	A A A	0 -	95 a	96 a	93 a	0 -
4	VALOR SX SCEPTER COC N-PAK AMS	3 oz/a 2.1 oz/a 1 % v/v 2.5 % v/v	A A A A	0 -	96 a	96 a	91 a	0 -
5	VALOR SX DUAL MAGNUM COC N-PAK AMS	3 oz/a 20 fl oz/a 1 % v/v 2.5 % v/v	A A A A	0 -	88 a	70 a	85 ab	0 -
6	VALOR SX DUAL MAGNUM SCEPTER COC N-PAK AMS	3 oz/a 20 fl oz/a 2.1 oz/a 1 % v/v 2.5 % v/v	A A A A A	0 -	98 a	93 a	96 a	0 -

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed	W Weed	W Weed	
Pest Code		AMBEL	XANOR	SETFA	
Pest Scientific Name		Ambrosia artem>	Xanthium orien>	Setaria faberi	
Pest Name		Common ragweed	Common cockleb>	Giant foxtail	
Crop Code	GLXMA				GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Part Rated	PLAEME -				
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. LEGLIETE	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
SE Group No.	6	7	8	9	10
Rating Timing	A1				
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	6	7	8
7 TRIVENCE @ 10 oz/a			0 -	93 a	97 a
CLASSIC	0.39 oz ai/a A				
VALOR	1.28 oz ai/a A				
SENCOR	4.46 oz ai/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
8 VALOR SX	2.5 oz/a A		0 -	98 a	97 a
SENCOR	0.5 lb/a A				
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
9 SPARTAN 4F	8 fl oz/a A		0 -	53 b	59 a
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
10 AUTHORITY XL	6.45 oz/a A		0 -	71 ab	93 a
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
11 SPARTAN 4F	8 fl oz/a A		0 -	91 a	93 a
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
12 AUTHORITY ELITE	24 fl oz/a A		0 -	81 a	89 a
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
13 AUTHORITY ELITE	24 fl oz/a A		0 -	91 a	89 a
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
14 AUTHORITY MTZ	16 oz/a A		0 -	69 ab	65 a
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				
15 AUTHORITY MTZ	16 oz/a A		0 -	91 a	90 a
SENCOR	0.14 lb/a A				
SCEPTER	2.1 oz/a A				
COC	1 % v/v A				
N-PAK AMS	2.5 % v/v A				

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type		W Weed	W Weed	W Weed	
Pest Code		AMBEL	XANOR	SETFA	
Pest Scientific Name		Ambrosia artem>	Xanthium orien>	Setaria faberi	
Pest Name		Common ragweed	Common cockleb>	Giant foxtail	
Crop Code	GLXMA				GLXMA
BBCH Scale	BSOY				BSOY
Crop Scientific Name	Glycine max				Glycine max
Crop Name	Soybean				Soybean
Part Rated	PLAEME -				
Rating Date	Jun-5-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016	Jun-14-2016
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Assessed By	T. LEGLIETE	D. JOHNSON	D. JOHNSON	D. JOHNSON	D. JOHNSON
SE Group No.	6	7	8	9	10
Rating Timing	A1				
Days After First/Last Applic.	30 30	39 39	39 39	39 39	39 39
Trt-Eval Interval	30 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A
Plant-Eval Interval	10 DP-1	19 DP-1	19 DP-1	19 DP-1	19 DP-1
Days After Emergence	5 DE-1	14 DE-1	14 DE-1	14 DE-1	14 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0
Trt Treatment	Rate	Appl			
No. Name	Rate Unit	Code	6	7	8
16 Untreated Check	0 -	0 c	0 b	0 c	0 -
LSD P=.05	.	17.8	23.3	12.8	.
Standard Deviation	0.0	12.5	16.4	9.0	0.0
CV	0.0	16.69	21.96	11.6	0.0
Bartlett's X2	0.0	46.666	84.072	39.153	0.0
P(Bartlett's X2)	.	0.001*	0.001*	0.001*	.
Skewness	.	-1.5275*	-1.5171*	-1.9308*	.
Kurtosis	.	0.9316	0.6133	2.2462*	.
Replicate F	0.000	0.883	0.382	0.127	0.000
Replicate Prob(F)	1.0000	0.4571	0.7666	0.9437	1.0000
Treatment F	0.000	25.820	14.960	47.576	0.000
Treatment Prob(F)	1.0000	0.0001	0.0001	0.0001	1.0000

Purdue Weed Science

SCEPTER TANK MIXTURES FOR EARLY PREPLANT IN NO-TILL SOYBEANS

Trial ID: 16S-SEP-SOY-07 Location: SEPAC Trial Year: 2016
 Protocol ID: 16S-SEP-SOY-07 Investigator: Dr. Bill Johnson
 Project ID: 16C05H062 Study Director: Dustin Johnson
 Sponsor Contact: AMVAC-Joe Argentine

Pest Type

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

Pest Code

AMBEL, Ambrosia artemisiifolia, = US

XANOR, Xanthium orientale, = US

SETFA, Setaria faberi, = US

Crop Code

GLXMA, BSOY, Glycine max, = US

Part Rated

PLAEME = plant - emerged

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

Rating Unit

% = percent

Rating Timing

A1 = 1st Assessment According to Trial Schedule

Plant-Eval Interval

-8 DP-1 = 1 GLXMA May-26-2016

10 DP-1 = 1 GLXMA May-26-2016

19 DP-1 = 1 GLXMA May-26-2016

ARM Action Codes

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