Purdue University Weed Science

Basis Blend or Canopy Plus Panoflex for Burndown and Residual Control in Soybean

Trial ID: 13F-SEP-NTS-05 Location: SEPAC Trial Year:
Protocol ID: 13F-SEP-NTS-05 Investigator: Dr. Bill Johnson
Project ID: US002/14/01: USA-14-002 Study Director: Joe Ikley
Sponsor Contact: DuPont - Kelly Barnett

General Trial Information

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

Discipline: H herbicide
Trial Status: E established
Initiation Date: 11/5/2013
Completion Date: 6/12/2014

Trial Location

City: Butlerville **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47223

Contacts

Study Director: Joe Ikley **Title:** Research Associate
Organization: Purdue University
Address: 915 West State Street **Phone No.:** 765-494-0891
City+State/Prov: West Lafayette **Mobile No.:** 410-596-9091
Postal Code: 47907 **E-mail:** jikley@purdue.edu

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

Cooperator/Landowner

Cooperator: Don Biehle **Role:** Superintendent
Organization: Southeast Purdue Agriculture Center
Address 1: 4425 East County Road 350 North
City: Butlerville **Phone No.:** 812-458-6977
State/Prov: Indiana **Fax No.:** 812-458-6979
Postal Code: 47223-0216 **Mobile No.:** 812-592-8426
Country: USA United States **E-mail:** biehled@purdue.edu

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 2933
Description: RR

Planting Date: 5/27/2014
Planting Rate, Unit: 140000 S/A **Planting Method:** DIRDRI direct drilled
Depth, Unit: 1.5 IN **Planting Equipment:** PP Plot Planter
Row Spacing, Unit: 30 IN **Emergence Date:** 5/31/2014
Soil Temperature, Unit: 80 F
Soil Moisture: WET wet

Pest Description

Pest 1 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed
Description: GLYPHOSATE-RESISTANT

Pest 2 Type: W **Code:** ALLVI Allium vineale
Common Name: Wild garlic

Pest 3 Type: W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion

Pest 4 Type: W **Code:** PLASS Plantago sp.
Common Name: Plantain

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:** 12 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

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Maintenance

No.	Date	Maintenance Product Name	Form Conc	Form Type	Rate	Rate Unit
1.	5/27/2014	Gramoxone 2	2	L	3	PT/A

Comment: Paraquat applied to all plots at planting

Soil Description

Description Name: SEPAC-U41
% Sand: 20 **% OM:** 1.3 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.5 **Soil Name:** Avonburg
% Clay: 15 **CEC:** 5.7 **Fert. Level:** F fair
Soil Drainage: P poor

Application Description

	A
Application Date:	11/5/2013
Appl. Start Time:	12:00
Appl. Stop Time:	1:00 PM
Application Method:	SPRAY
Application Timing:	NOVEMB
Application Placement:	BROFOL
Applied By:	Ikley
Air Temperature, Unit:	58 F
% Relative Humidity:	54
Wind Velocity, Unit:	5 MPH
Wind Direction:	S
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	56 F
Soil Moisture:	SLIWET
% Cloud Cover:	90
Next Moisture Occurred On:	11/6/2013

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	BBCH

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ERICA W
Stage Majority, Percent:	13
Stage Minimum, Percent:	11
Stage Maximum, Percent:	16
Diameter, Unit:	3 IN
Density, Unit:	15 YD2
Pest 2 Code, Type, Scale:	ALLVI W
Stage Majority, Percent:	12
Stage Minimum, Percent:	11
Stage Maximum, Percent:	14
Height, Unit:	5.5 IN
Height Minimum, Maximum:	3 8
Pest 3 Code, Type, Scale:	TAROF W
Stage Majority, Percent:	15
Stage Minimum, Percent:	00
Stage Maximum, Percent:	18
Diameter, Unit:	4 IN
Density, Unit:	7.5 YD2
Pest 4 Code, Type, Scale:	PLASS W
Stage Majority, Percent:	16
Stage Minimum, Percent:	11
Stage Maximum, Percent:	18
Diameter, Unit:	4 IN
Density, Unit:	20 YD2

Application Equipment

	A
Appl. Equipment:	CO2 Backpack
Equipment Type:	SPRBAC
Operation Pressure, Unit:	18 PSI
Nozzle Type:	Flat Fan
Nozzle Size:	XR11002
Nozzle Spacing, Unit:	15 IN
Nozzles/Row:	8
Boom Length, Unit:	10 FT
Boom Height, Unit:	18 IN
Ground Speed, Unit:	3 MPH
Carrier:	H2O
Water Hardness (ppm CaCO3):	150
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	1.8 Liters
Propellant:	CO2
Tank Mix (Y/N):	N no

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Trial ID: 13F-SEP-NTS-05 Location: SEPAC Trial Year:
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Trial Comments

Unable to rate efficay at March 1, April 1, and May 1 rating dates due to winter-kill of winter annuals and slow emergence of summer annuals.

Unable to rate phytotoxicity at 28 days after planting due to heavy deer damage.

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Project ID: US002/14/01: USA-14-002 Study Director: Joe Ikley
Sponsor Contact: DuPont - Kelly Barnett

Reps: 4 Plots: 10 by 30 feet
Spray vol: 15 gal/ac Mix size: 1.8 liters (min 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
1	BASIS BLEND @ 0.825 OZ						A	FALL BURNDOWN		101	303	702	902
	RESOLVE	25	%	DF	0.165	oz ai/a	A	FALL BURNDOWN	0.5931 g/mx				
	HARMONY SG	50	%	SG	0.0825	oz ai/a	A	FALL BURNDOWN	0.1483 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
2	BASIS BLEND @ 0.825 OZ									102	403	605	1003
	RESOLVE	25	%	DF	0.165	oz ai/a	A	FALL BURNDOWN	0.5931 g/mx				
	HARMONY SG	50	%	SG	0.0825	oz ai/a	A	FALL BURNDOWN	0.1483 g/mx				
	PANOFLEX @ 0.3 OZ						A	FALL BURNDOWN					
	EXPRESS	50	%	SG	0.12	oz ai/a	A	FALL BURNDOWN	0.2157 g/mx				
	HARMONY SG	50	%	SG	0.03	oz ai/a	A	FALL BURNDOWN	.05392 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a			70.58 ml/mx				
3	CANOPY	75	%	DG	3	oz/a	A	FALL BURNDOWN	2.696 g/mx	103	501	505	802
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
4	CANOPY	75	%	DG	3	oz/a	A	FALL BURNDOWN	2.696 g/mx	104	305	601	803
	PANOFLEX @ 0.3 OZ						A	FALL BURNDOWN					
	EXPRESS	50	%	SG	0.12	oz ai/a	A	FALL BURNDOWN	0.2157 g/mx				
	HARMONY SG	50	%	SG	0.03	oz ai/a	A	FALL BURNDOWN	.05392 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
5	BASIS BLEND @ 1.25 OZ						A	FALL BURNDOWN		105	405	602	905
	RESOLVE	25	%	DF	0.25	oz ai/a	A	FALL BURNDOWN	0.8987 g/mx				
	HARMONY SG	50	%	SG	0.125	oz ai/a	A	FALL BURNDOWN	0.2247 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
6	BASIS BLEND @ 1.25 OZ						A	FALL BURNDOWN		201	402	801	904
	RESOLVE	25	%	DF	0.25	oz ai/a	A	FALL BURNDOWN	0.8987 g/mx				
	HARMONY SG	50	%	SG	0.125	oz ai/a	A	FALL BURNDOWN	0.2247 g/mx				
	PANOFLEX @ 0.3 OZ						A	FALL BURNDOWN					
	EXPRESS	50	%	SG	0.12	oz ai/a	A	FALL BURNDOWN	0.2157 g/mx				
	HARMONY SG	50	%	SG	0.03	oz ai/a	A	FALL BURNDOWN	.05392 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
7	PANOFLEX @ 0.3 OZ						A	FALL BURNDOWN		202	401	704	805
	EXPRESS	50	%	SG	0.12	oz ai/a	A	FALL BURNDOWN	0.2157 g/mx				
	HARMONY SG	50	%	SG	0.03	oz ai/a	A	FALL BURNDOWN	.05392 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
8	CANOPY EX @ 1.1 0Z						A	FALL BURNDOWN		203	404	701	903
	CLASSIC	25	%	WG	0.25	oz ai/a	A	FALL BURNDOWN	0.8987 g/mx				
	EXPRESS	50	%	SG	0.075	oz ai/a	A	FALL BURNDOWN	0.1348 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
9	CANOPY EX @ 2.2 0Z						A	FALL BURNDOWN		204	503	703	1002
	CLASSIC	25	%	WG	0.5	oz ai/a	A	FALL BURNDOWN	1.797 g/mx				
	EXPRESS	50	%	SG	0.15	oz ai/a	A	FALL BURNDOWN	0.2696 g/mx				
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				

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Reps: 4 Plots: 10 by 30 feet
Spray vol: 15 gal/ac Mix size: 1.8 liters (min 1.5642)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Appl Description	Amt Product to Measure	Rep 1	2	3	4
10	Untreated Check						A	FALL BURNDOWN		205	504	603	901
11	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx	301	502	705	1001
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				
12	ROUNDUP POWERMAX	4.5	LBAE/GAL	SL	22	fl oz/a	A	FALL BURNDOWN	20.62 ml/mx	302	304	604	804
	2,4-D LV4	4	LBAE/GAL	L	1	pt/a	A	FALL BURNDOWN	15.0 ml/mx				
	COC	100	%	SL	1	% v/v	A	FALL BURNDOWN	18.0 ml/mx				
	N-PAK AMS	3.4	LBA/GAL	SL	2	lb ai/a	A	FALL BURNDOWN	70.58 ml/mx				

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
2.984	g	RESOLVE	25	DF	
0.962	g	HARMONY SG	50	SG	
164.982	ml	2,4-D LV4	4	L	
197.978	ml	COC	100	SL	
776.386	ml	N-PAK AMS	3.4	SL	
1.267	g	EXPRESS	50	SG	
5.392	g	CANOPY	75	DG	
2.696	g	CLASSIC	25	WG	
20.625	ml	ROUNDUP POWERMAX	4.5	SL	

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

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Basis Blend or Canopy Plus Panoflex for Burndown and Residual Control in Soybean

Trial ID: 13F-SEP-NTS-05 Location: SEPAC Trial Year:
Protocol ID: 13F-SEP-NTS-05 Investigator: Dr. Bill Johnson
Project ID: US002/14/01: USA-14-002 Study Director: Joe Ikley
Sponsor Contact: DuPont - Kelly Barnett

Trt No.	Treatment Name	Rate	Unit	Appl Code	Plot	1	2	3	4
	Pest Type					W Weed	W Weed	W Weed	
	Pest Code					ALLVI	THLSS	ERICA	
	Pest Scientific Name					Allium vineale	Thlaspi sp.	Conyza canaden>	
	Pest Name					Wild garlic	Pennycress	Canada horsewe>	
	Crop Code								GLXMA
	BBCH Scale								BSOY
	Crop Scientific Name								Glycine max
	Crop Name								Soybean
	Part Rated					PLOT P	PLOT P	PLOT P	PLOT C
	Rating Date					5/27/2014	5/27/2014	5/27/2014	6/12/2014
	Rating Type					CONTRO	CONTRO	CONTRO	PHYGEN
	Rating Unit					%	%	%	%
	Sample Size, Unit					1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Days After First/Last Applic.					203 203	203 203	203 203	219 219
	ARM Action Codes					P	P	P	P
	Number of Decimals					0	0	0	0
1	BASIS BLEND @ 0.825 OZ				101	60	100	0	0
	RESOLVE	0.165	oz ai/a	A	303	50	100	20	0
	HARMONY SG	0.0825	oz ai/a	A	702	95	50	20	0
	2,4-D LV4	1	pt/a	A	902	90	90	0	0*
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	74	85	10	0
2	BASIS BLEND @ 0.825 OZ				102	90	90	0	0
	RESOLVE	0.165	oz ai/a	A	403	70	75	20	0
	HARMONY SG	0.0825	oz ai/a	A	605	90	100	80	0
	PANOFLEX @ 0.3 OZ			A	1003	95	95	90	0
	EXPRESS	0.12	oz ai/a	A					
	HARMONY SG	0.03	oz ai/a	A					
	2,4-D LV4	1	pt/a	A					
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a						
					Mean =	86	90	48	0
3	CANOPY	3	oz/a	A	103	40	100	0	0
	2,4-D LV4	1	pt/a	A	501	90	100	90	0*
	COC	1	% v/v	A	505	75	100	30	0*
	N-PAK AMS	2	lb ai/a	A	802	95	100*	70	0
					Mean =	75	100	48	0
4	CANOPY	3	oz/a	A	104	100	100	0	0
	PANOFLEX @ 0.3 OZ			A	305	40	100	0	0
	EXPRESS	0.12	oz ai/a	A	601	90	100	20	0
	HARMONY SG	0.03	oz ai/a	A	803	100	100	50	0
	2,4-D LV4	1	pt/a	A					
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	83	100	18	0
5	BASIS BLEND @ 1.25 OZ			A	105	30	100	0	0
	RESOLVE	0.25	oz ai/a	A	405	90	0	30	0
	HARMONY SG	0.125	oz ai/a	A	602	95	20	70	0
	2,4-D LV4	1	pt/a	A	905	90	95	90	0*
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	76	54	48	0

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Plot	1	2	3	4
	Pest Type					W Weed	W Weed	W Weed	
	Pest Code					ALLVI	THLSS	ERICA	
	Pest Scientific Name					Allium vineale	Thlaspi sp.	Conyza canaden>	
	Pest Name					Wild garlic	Pennycress	Canada horsewe>	
	Crop Code								GLXMA
	BBCH Scale								BSOY
	Crop Scientific Name								Glycine max
	Crop Name								Soybean
	Part Rated					PLOT P	PLOT P	PLOT P	PLOT C
	Rating Date					5/27/2014	5/27/2014	5/27/2014	6/12/2014
	Rating Type					CONTRO	CONTRO	CONTRO	PHYGEN
	Rating Unit					%	%	%	%
	Sample Size, Unit					1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Days After First/Last Applic.					203 203	203 203	203 203	219 219
	ARM Action Codes					P	P	P	P
	Number of Decimals					0	0	0	0
6	BASIS BLEND @ 1.25 OZ			A	201	60*	95*	3*	0
	RESOLVE	0.25	oz ai/a	A	402	60	100	60	0
	HARMONY SG	0.125	oz ai/a	A	801	90	95*	20	0
	PANOFLEX @ 0.3 OZ			A	904	90	90	10	0*
	EXPRESS	0.12	oz ai/a	A					
	HARMONY SG	0.03	oz ai/a	A					
	2,4-D LV4	1	pt/a	A					
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	75	95	23	0
7	PANOFLEX @ 0.3 OZ			A	202	100	100	30	0
	EXPRESS	0.12	oz ai/a	A	401	60	100	0	0
	HARMONY SG	0.03	oz ai/a	A	704	95	100*	40	0
	2,4-D LV4	1	pt/a	A	805	100	100	90	0
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	89	100	40	0
8	CANOPY EX @ 1.1 0Z			A	203	40	100	30	0
	CLASSIC	0.25	oz ai/a	A	404	75	100	0	0
	EXPRESS	0.075	oz ai/a	A	701	95	100	80	0
	2,4-D LV4	1	pt/a	A	903	90	95	0	0*
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	75	99	28	0
9	CANOPY EX @ 2.2 0Z			A	204	68*	100*	38*	0
	CLASSIC	0.5	oz ai/a	A	503	95	100	75	0
	EXPRESS	0.15	oz ai/a	A	703	100	100	30	0*
	2,4-D LV4	1	pt/a	A	1002	70	100	90	0
	COC	1	% v/v	A					
	N-PAK AMS	2	lb ai/a	A					
					Mean =	83	100	58	0
10	Untreated Check			A	205	0	0	0	0
					504	0	0	0	0
					603	0	0	0	0
					901	0	0	0	0
					Mean =	0	0	0	0
11	2,4-D LV4	1	pt/a	A	301	60	0	75	0
	COC	1	% v/v	A	502	20	70	0	0
	N-PAK AMS	2	lb ai/a	A	705	80	0	0	0
					1001	95	95	70	0*
					Mean =	64	41	36	0
12	ROUNDUP POWERMAX	22	fl oz/a	A	302	20	30	0	0
	2,4-D LV4	1	pt/a	A	304	70	30	95	0
	COC	1	% v/v	A	604	90	100	70	0
	N-PAK AMS	2	lb ai/a	A	804	95	100	85	0
					Mean =	69	65	63	0

Pest Type
W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
ALLVI, Allium vineale, = US
THLSS, Thlaspi sp., = US
ERICA, Conyza canadensis, = US
Crop Code

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GLXMA, BSOY, Glycine max, = US

Part Rated
PLOT = plot
P = Pest is Part Rated
C = Crop is Part Rated

Rating Type
CONTRO = control / burndown or knockdown
PHYGEN = phytotoxicity - general / injury

Rating Unit
% = percent

PLOT = total plot

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

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4
	Pest Type				W Weed	W Weed	W Weed	
	Pest Code				ALLVI	THLSS	ERICA	
	Pest Scientific Name				Allium vineale	Thlaspi sp.	Conyza canaden>	
	Pest Name				Wild garlic	Pennycress	Canada horsewe>	
	Crop Code							GLXMA
	BBCH Scale							BSOY
	Crop Scientific Name							Glycine max
	Crop Name							Soybean
	Part Rated				PLOT P	PLOT P	PLOT P	PLOT C
	Rating Date				5/27/2014	5/27/2014	5/27/2014	6/12/2014
	Rating Type				CONTRO	CONTRO	CONTRO	PHYGEN
	Rating Unit				%	%	%	%
	Sample Size, Unit				1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Days After First/Last Applic.				203 203	203 203	203 203	219 219
	ARM Action Codes				P	P	P	P
	Number of Decimals				0	0	0	0
1	BASIS BLEND @ 0.825 OZ				74 a	85 a	10 a	0 a
	RESOLVE	0.165	oz ai/a	A				
	HARMONY SG	0.0825	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
2	BASIS BLEND @ 0.825 OZ				86 a	90 a	48 a	0 a
	RESOLVE	0.165	oz ai/a	A				
	HARMONY SG	0.0825	oz ai/a	A				
	PANOFLEX @ 0.3 OZ			A				
	EXPRESS	0.12	oz ai/a	A				
	HARMONY SG	0.03	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a					
3	CANOPY	3	oz/a	A	75 a	100 a	48 a	0 a
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
4	CANOPY	3	oz/a	A	83 a	100 a	18 a	0 a
	PANOFLEX @ 0.3 OZ			A				
	EXPRESS	0.12	oz ai/a	A				
	HARMONY SG	0.03	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
5	BASIS BLEND @ 1.25 OZ			A	76 a	54 a	48 a	0 a
	RESOLVE	0.25	oz ai/a	A				
	HARMONY SG	0.125	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
6	BASIS BLEND @ 1.25 OZ			A	75 a	95 a	23 a	0 a
	RESOLVE	0.25	oz ai/a	A				
	HARMONY SG	0.125	oz ai/a	A				
	PANOFLEX @ 0.3 OZ			A				
	EXPRESS	0.12	oz ai/a	A				
	HARMONY SG	0.03	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	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=1,3; Average=2,4

Purdue University Weed Science

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4
	Pest Type				W Weed	W Weed	W Weed	
	Pest Code				ALLVI	THLSS	ERICA	
	Pest Scientific Name				Allium vineale	Thlaspi sp.	Conyza canaden>	
	Pest Name				Wild garlic	Pennycress	Canada horsewe>	
	Crop Code							GLXMA
	BBCH Scale							BSOY
	Crop Scientific Name							Glycine max
	Crop Name							Soybean
	Part Rated				PLOT P	PLOT P	PLOT P	PLOT C
	Rating Date				5/27/2014	5/27/2014	5/27/2014	6/12/2014
	Rating Type				CONTRO	CONTRO	CONTRO	PHYGEN
	Rating Unit				%	%	%	%
	Sample Size, Unit				1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Days After First/Last Applic.				203 203	203 203	203 203	219 219
	ARM Action Codes				P	P	P	P
	Number of Decimals				0	0	0	0
7	PANOFLEX @ 0.3 OZ			A	89 a	100 a	40 a	0 a
	EXPRESS	0.12	oz ai/a	A				
	HARMONY SG	0.03	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
8	CANOPY EX @ 1.1 0Z			A	75 a	99 a	28 a	0 a
	CLASSIC	0.25	oz ai/a	A				
	EXPRESS	0.075	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
9	CANOPY EX @ 2.2 0Z			A	83 a	100 a	58 a	0 a
	CLASSIC	0.5	oz ai/a	A				
	EXPRESS	0.15	oz ai/a	A				
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
10	Untreated Check			A	0 b	0 b	0 a	0 a
11	2,4-D LV4	1	pt/a	A	64 a	41 a	36 a	0 a
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
12	ROUNDUP POWERMAX	22	fl oz/a	A	69 a	65 a	63 a	0 a
	2,4-D LV4	1	pt/a	A				
	COC	1	% v/v	A				
	N-PAK AMS	2	lb ai/a	A				
	LSD (P=.05)				28.8	38.7	46.4	0.0
	Standard Deviation				20.0	26.7	32.1	0.0
	CV				28.25	34.51	92.31	0.0
	Bartlett's X2				5.029	20.524	5.568	0.0
	P(Bartlett's X2)				0.889	0.002*	0.85	.
	Skewness				-1.1603*	-1.2313*	0.4323	.
	Kurtosis				0.1607	-0.2581	-1.4764*	.

Purdue University Weed Science

Basis Blend or Canopy Plus Panoflex for Burndown and Residual Control in Soybean

Trial ID: 13F-SEP-NTS-05 Location: SEPAC Trial Year:
Protocol ID: 13F-SEP-NTS-05 Investigator: Dr. Bill Johnson
Project ID: US002/14/01: USA-14-002 Study Director: Joe Ikley
Sponsor Contact: DuPont - Kelly Barnett

Randomized Complete Block (RCB) AOV For W Weed ALLVI Allium vineale Wild garlic PLOT P 5/27/2014 CONTRO % 1 PLOT 203 203 P 0 (Data Column 1)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	45	44454.629578			
Replicate	3	8043.055479	2681.018493	6.724	0.0013
Treatment	11	24050.462989	2186.405726	5.483	0.0001
Error	31	12361.111111	398.745520		

Randomized Complete Block (RCB) AOV For W Weed THLSS Thlaspi sp. Pennycress PLOT P 5/27/2014 CONTRO % 1 PLOT 203 203 P 0 (Data Column 2)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	42	66149.479167			
Replicate	3	2030.729167	676.909722	0.949	0.4304
Treatment	11	44143.229167	4013.020833	5.625	0.0001
Error	28	19975.520833	713.411458		

Randomized Complete Block (RCB) AOV For W Weed ERICA Conyza canadensis Canada horseweed PLOT P 5/27/2014 CONTRO % 1 PLOT 203 203 P 0 (Data Column 3)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	45	57971.823891			
Replicate	3	9373.305427	3124.435142	3.024	0.0443
Treatment	11	16573.032353	1506.639305	1.458	0.1975
Error	31	32025.486111	1033.080197		

Randomized Complete Block (RCB) AOV For GLXMA BSOY Glycine max Soybean PLOT C 6/12/2014 PHYGEN % 1 PLOT 219 219 P 0 (Data Column 4)

Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	39	0.000000000000			
Replicate	3	0.000000000000	0.000000000000	0.000	1.0000
Treatment	11	0.000000000000	0.000000000000	0.000	1.0000
Error	25	0.000000000000	0.000000000000		

Pest Type
W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
ALLVI, Allium vineale, = US
THLSS, Thlaspi sp., = US
ERICA, Conyza canadensis, = US
Crop Code
GLXMA, BSOY, Glycine max, = US
Part Rated
PLOT = plot
P = Pest is Part Rated
C = Crop is Part Rated
Rating Type
CONTRO = control / burndown or knockdown
PHYGEN = phytotoxicity - general / injury
Rating Unit
% = percent

PLOT = total plot
ARM Action Codes
P = Rating scale of 0 to 100 (e.g. % control or injury)