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Glyphosate soybean system for DuPont and FMC

Trial ID: 09S-SEP-NTS-49 Protocol ID: 09S-SEP-NTS-49
 Location: SEPAC Study Director: Melissa Kruger/Paul Marquardt
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: Helen Flanigan

General Trial Information

Study Director: Melissa Kruger/Paul Marquardt **Title:** Lab Tech VIII/Research Assoc.
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: F one-year/final
Initiation Date: 4/23/09 **Planned Completion Date:** 7/14/09

Trial Location

City: Butleville
State/Prov.: Indiana
Postal Code: 47223-0216
Country: USA

Objectives:

Glyphosate soybean system for DuPont and FMC

Personnel

Study Director: Melissa Kruger/Paul Marquardt **Title:** Lab Tech VIII/Research Assoc.
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** mmkruger@purdue.edu/pmarquar@purdue.edu
Phone No.: 765-494-4621
Investigator: Dr. Bill Johnson **Title:** Professor
Affiliation: Purdue University
Address: 915 W. State Street
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** wgj@purdue.edu

Cooperator/Landowner

Cooperator: Southeastern-Purdue Ag Center **Role:** Cooperator
Organization: Purdue University
Address 1: 4425 E Co. Rd. 350 N
City: Butleville **Phone No.:** 1-812-458-6977
State/Prov: IN **Fax No.:** 1-812-458-6979
Postal Code: 477223-021 **E-mail:** biehled@purdue.edu
Country: USA United States

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG3402 **Description:** Roundup Ready
BBCH Scale: BSOY **Planting Date:** 5/26/09
Planting Method: DIRDRI direct drilled **Rate, Unit:** 150000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 78 F
Soil Moisture: MOIST slightly wet **Emergence Date:** 5/31/09

Pest Description

Pest 1 Type: W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion

Pest 2 Type: W **Code:** RANAB Ranunculus abortivus
Common Name: Smallflower buttercup

Pest 3 Type: W **Code:** VENAL Vernonia altissima
Common Name: Tall ironweed

Pest 4 Type: W **Code:** SENGL Senecio glabellus

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Common Name: Cressleaf groundsel**Pest 5 Type:** W **Code:** CERVU Cerastium fontanum vulgare**Common Name:** Mouse-ear chickweed**Pest 6 Type:** W **Code:** POAAN Poa annua**Common Name:** Annual bluegrass**Pest 7 Type:** W **Code:** ALLVI Allium vineale**Common Name:** Wild garlic**Pest 8 Type:** W **Code:** CAPBP Capsella bursa-pastoris**Common Name:** Shepherd's purse**Pest 9 Type:** W **Code:** ERICA Conyza canadensis**Common Name:** Canada horseweed**Pest10 Type:** W **Code:** SETFA Setaria faberi**Common Name:** Giant foxtail**Pest11 Type:** W **Code:** ECHCG Echinochloa crus-galli**Common Name:** Common barnyardgrass**Site and Design**

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

Soil Description

Description Name: SEPAC Field U4-6
% OM: 1.8 **Texture:** SIL silt loam
pH: 5.6 **Soil Name:** Avonburg
CEC: 6.7

Analyzed By:

A&L Great Lakes Laboratories, Inc. Report#: F07320-0472

Additional Measured Elements

Element	Quantity	Unit
P	7	ppm
K	59	ppm
Mg	140	ppm
Ca	600	ppm

Moisture and Weather Conditions**Closest Weather Station:** On research farm **Distance, Unit:** 0.5 MI**Application Description**

	A	B
Application Date:	4/23/09	6/17/09
Time of Day:	11:45 AM	9:20 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPLA	POSPOS
Application Placement:	BROFOL	BROFOL
Applied By:	VM MK	RH MK
Air Temperature, Unit:	63 F	73 F
% Relative Humidity:	42	82
Wind Velocity, Unit:	7.5 MPH	3 MPH
Wind Direction:	SE	S
Dew Presence (Y/N):	N no	Y yes
Soil Temperature, Unit:	55 F	74 F
Soil Moisture:	MOIST	MOIST
% Cloud Cover:	15	100

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	N/A	V1
Stage Minimum, Percent:		VC
Stage Maximum, Percent:		V1
Height, Unit:		5 IN
Height Minimum, Maximum:		4 6

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	TAROF W	TAROF W
Stage Majority, Percent:	ROSETT	VEG
Stage Minimum, Percent:	ROSETT	COTY
Stage Maximum, Percent:	FLOWER	SEEDSE
Height, Unit:	13 IN	12 IN
Height Minimum, Maximum:	10 16	0 24
Density, Unit:	7.5 YD2	15 YD2
Pest 2 Code, Type, Scale:	RANAB W	RANAB W
Stage Majority, Percent:	COTY	
Stage Minimum, Percent:	COTY	
Stage Maximum, Percent:	FLOWER	
Height, Unit:	6 IN	
Height Minimum, Maximum:	0 12	
Density, Unit:	20 YD2	
Pest 3 Code, Type, Scale:	VENAL W	VENAL W
Stage Majority, Percent:	ROSETT	
Height, Unit:	1.5 IN	
Height Minimum, Maximum:	0 3	
Density, Unit:	5 YD2	
Pest 4 Code, Type, Scale:	SENGL W	SENGL W
Stage Majority, Percent:	ROSETT	
Stage Minimum, Percent:	ROSETT	

Stage Maximum, Percent:	FLOWER	
Height, Unit:	17 IN	
Height Minimum, Maximum:	4 30	
Density, Unit:	15 YD2	
Pest 5 Code, Type, Scale:	CERVU W	CERVU W
Stage Majority, Percent:	FLOWER	
Stage Minimum, Percent:	ROSETT	
Stage Maximum, Percent:	FLOWER	
Height, Unit:	5 IN	
Height Minimum, Maximum:	2 8	
Density, Unit:	5 YD2	
Pest 6 Code, Type, Scale:	POAAN W	POAAN W
Stage Majority, Percent:	VEG	
Height, Unit:	1.5 IN	
Height Minimum, Maximum:	0 3	
Density, Unit:	50 YD2	
Pest 7 Code, Type, Scale:	ALLVI W	ALLVI W
Stage Majority, Percent:	VEG	
Height, Unit:	15 IN	
Height Minimum, Maximum:	10 20	
Density, Unit:	15 YD2	
Pest 8 Code, Type, Scale:	CAPBP W	CAPBP W
Stage Majority, Percent:	ROSETT	
Stage Minimum, Percent:	ROSETT	
Stage Maximum, Percent:	FLOWER	
Height, Unit:	10 IN	
Height Minimum, Maximum:	3 14	
Density, Unit:	3 YD2	
Pest 9 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:		BOLT
Stage Minimum, Percent:		COTY
Stage Maximum, Percent:		BOLT
Height, Unit:		10 IN
Height Minimum, Maximum:		0 18
Density, Unit:		11 YD2
Pest10 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		COTY
Stage Minimum, Percent:		COTY
Stage Maximum, Percent:		1 LF
Height, Unit:		3 IN
Height Minimum, Maximum:		0 6
Density, Unit:		50 FT2
Pest11 Code, Type, Scale:	ECHCG W	ECHCG W

Application Equipment

	A	B
Appl. Equipment:	CO2 Backpack	CO2 Backpack
Equipment Type:	SPRBAC	SPRBAC
Operating Pressure, Unit:	17 PSI	17 PSI
Nozzle Type:	Flat Fan	Flat Fan
Nozzle Size:	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN
Nozzles/Row:	6	6
Boom Length, Unit:	7.5 FT	7.5 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	H2O	H2O
Water Hardness (ppm CaCO3):	150	150
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 Liters	1.8 Liters
Propellant:	CO2	CO2
Tank Mix (Y/N):	N no	N no

Glyphosate soybean system for DuPont and FMC

Trial ID: 09S-SEP-NTS-49 Protocol ID: 09S-SEP-NTS-49
 Location: SEPAC Study Director: Melissa Kruger/Paul Marquardt
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: Helen Flanigan

Pest Type				W Weed	W Weed	W Weed				
Pest Code				SENGL	RANAB	ERICA				
Pest Scientific Name				Senecio glabel>	Ranunculus abo>	Conyza canaden>				
Pest Name				Cressleaf grou>	Smallflower bu>	Canada horsewe>				
Crop Code	GLXMA	GLXMA	GLXMA	N/A	N/A	N/A				
Crop Scientific Name	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean							
Part Rated	PLOT C	PLOT C	PLOT C	PLOT P	PLOT P	PLOT P				
Rating Date	6/24/09	6/30/09	7/14/09	4/5/09	4/5/09	4/5/09				
Rating Type	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Sample Size, Unit										
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	V1-V2	V3	R1-R2	N/A	N/A	N/A				
Crop Stage Minimum/Maximum	2-6"	6-12"	6-20"							
Pest Stage Majority				FLOWER	COTY-FLO	COTY				
Pest Stage Minimum/Maximum				6-36"	0.5-20"	0-4"				
Pest Density, Unit				11 YD2	10 YD2	15 YD2				
Footnote Number	1	1	2							
Assessed By	MK	MK	MK	MK&PM	MK&PM	MK&PM				
Rating Timing										
Days After First/Last Applic.	62 7	68 13	82 27	-18 -18	-18 -18	-18 -18				
Trt-Eval Interval				-18 DA-A	-18 DA-A	-18 DA-A				
Plant-Eval Interval	29 DP-1	35 DP-1	49 DP-1	-51 DP-1	-51 DP-1	-51 DP-1				
Days After Emergence	24 DE-	30 DE-	44 DE-	-56 DE	-56 DE	-56 DE				
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	12	16	1	2	3
1	Untreated				0.0 b	0.0 b	0.0 b	0.0 c	0.0 b	0.0 b
2	Canopy EX			A	13.8 ab	13.3 b	0.0 b	80.0 a	58.8 a	99.0 a
	Classic	0.34	oz ai/a	A						
	Express	0.1	oz ai/a	A						
	Roundup PowerMAX	0.77	lb ae/a	B						
	Synchrony XP			B						
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
3	Envive			A	11.3 ab	10.8 b	0.0 b	82.5 a	63.8 a	99.3 a
	Classic	0.32	oz ai/a	A						
	Harmony SG	0.1	oz ai/a	A						
	Valor SX	1	oz ai/a	A						
	Roundup PowerMAX	0.77	lb ae/a	B						
	Synchrony XP			B						
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
4	Canopy DF	0.188	lb ai/a	A	12.2 ab	16.6 b	0.0 b	65.0 b	59.3 a	99.5 a
	Roundup PowerMAX	0.77	lb ae/a	B						
	Synchrony XP			B						
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						

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Pest Type				W Weed	W Weed	W Weed				
Pest Code				SENGL	RANAB	ERICA				
Pest Scientific Name				Senecio glabel>	Ranunculus abo>	Conyza canaden>				
Pest Name				Cressleaf grou>	Smallflower bu>	Canada horsewe>				
Crop Code	GLXMA	GLXMA	GLXMA	N/A	N/A	N/A				
Crop Scientific Name	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean							
Part Rated	PLOT C	PLOT C	PLOT C	PLOT P	PLOT P	PLOT P				
Rating Date	6/24/09	6/30/09	7/14/09	4/5/09	4/5/09	4/5/09				
Rating Type	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Sample Size, Unit										
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	V1-V2	V3	R1-R2	N/A	N/A	N/A				
Crop Stage Minimum/Maximum	2-6"	6-12"	6-20"							
Pest Stage Majority				FLOWER	COTY-FLO	COTY				
Pest Stage Minimum/Maximum				6-36"	0.5-20"	0-4"				
Pest Density, Unit				11 YD2	10 YD2	15 YD2				
Footnote Number	1	1	2							
Assessed By	MK	MK	MK	MK&PM	MK&PM	MK&PM				
Rating Timing										
Days After First/Last Applic.	62 7	68 13	82 27	-18 -18	-18 -18	-18 -18				
Trt-Eval Interval				-18 DA-A	-18 DA-A	-18 DA-A				
Plant-Eval Interval	29 DP-1	35 DP-1	49 DP-1	-51 DP-1	-51 DP-1	-51 DP-1				
Days After Emergence	24 DE-	30 DE-	44 DE-	-56 DE	-56 DE	-56 DE				
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	12	16	1	2	3
5	Roundup PowerMAX	0.77	lb ae/a	B	13.3 ab	7.4 b	0.0 b			
	Synchrony XP			B						
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
6	Roundup PowerMAX	0.77	lb ae/a	B	33.8 a	35.0 a	25.0 a			
	Classic	0.125	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
7	Authority First	0.14	lb ai/a	A	0.0 b	2.6 b	0.0 b	96.5 a	97.5 a	99.8 a
	Rage D-Tech	0.38	lb ai/a	A						
	Roundup PowerMAX	0.77	lb ae/a	A						
	Roundup PowerMAX	0.77	lb ae/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
LSD (P=.05)		17.39			17.78		11.95	13.67	28.73	1.12
Standard Deviation		11.54			11.80		7.93	8.88	18.65	0.72
CV		95.84			96.56		221.99	13.7	33.39	0.91
Bartlett's X2		10.382			19.289		0.0	8.979	14.636	4.921
P(Bartlett's X2)		0.034*			0.002*		.	0.03*	0.002*	0.178
Replicate F		0.519			0.385		0.833	2.069	1.917	5.206
Replicate Prob(F)		0.6757			0.7654		0.4962	0.1580	0.1807	0.0156
Treatment F		3.837			3.865		5.682	72.979	14.195	15048.811
Treatment Prob(F)		0.0161			0.0156		0.0030	0.0001	0.0002	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Pest Type	W Weed								
Pest Code	ERICA	ERICA	ERICA	ERICA	TAROF				
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Conyza canadensis	Conyza canadensis	Taraxacum officinale				
Pest Name	Canada horseweed	Horseweed	Horseweed	Horseweed	Common dandelion				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	N/A				
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name	Soybean	Soybean	Soybean	Soybean					
Part Rated	PLOT P								
Rating Date	6/17/09	6/24/09	6/30/09	7/14/09	4/5/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Sample Size, Unit									
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority	VC-V1	V1-V2	V3	R1-R2	N/A				
Crop Stage Minimum/Maximum	4-6"	2-6"	6-12"	6-20"					
Pest Stage Majority	COTY-BOL	COTY-BOL	BOLT	BOLT	FLOWER				
Pest Stage Minimum/Maximum	0-18"	0-18"	0-30"	6-40"	10.24"				
Pest Density, Unit	11 YD2	6 YD2	6 YD2	6 YD2	6 YD2				
Footnote Number									
Assessed By	MK	MK	MK	MK	MK&PM				
Rating Timing									
Days After First/Last Applic.	55 55	62 7	68 13	82 27	-18 -18				
Trt-Eval Interval					-18 DA-A				
Plant-Eval Interval	22 DP-1	29 DP-1	35 DP-1	49 DP-1	-51 DP-1				
Days After Emergence	17 DE-	24 DE-	30 DE-	44 DE-	-56 DE				
Number of Decimals									
Trt No.	Treatment Name	Rate	Unit	Appl Code					
5					5	9	13	17	4
1	Untreated	0.0	b		0.0 b	0.0 b	0.0 b	0.0 b	0.0 c
2	Canopy EX			A	100.0 a	99.8 a	99.8 a	99.0 a	72.5 a
	Classic	0.34	oz ai/a	A					
	Express	0.1	oz ai/a	A					
	Roundup PowerMAX	0.77	lb ae/a	B					
	Synchrony XP			B					
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					
3	Envive			A	95.0 a	99.8 a	100.0 a	100.0 a	85.5 a
	Classic	0.32	oz ai/a	A					
	Harmony SG	0.1	oz ai/a	A					
	Valor SX	1	oz ai/a	A					
	Roundup PowerMAX	0.77	lb ae/a	B					
	Synchrony XP			B					
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					
4	Canopy DF	0.188	lb ai/a	A	100.0 a	100.0 a	100.0 a	100.0 a	50.0 b
	Roundup PowerMAX	0.77	lb ae/a	B					
	Synchrony XP			B					
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	TAROF	TAROF	TAROF	TAROF	SETFA					
Pest Scientific Name	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>	Setaria faberi					
Pest Name	Common dandel>	Common dandel>	Common dandel>	Common dandel>	Giant foxtail					
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P					
Rating Date	6/17/09	6/24/09	6/30/09	7/14/09	6/17/09					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Sample Size, Unit										
Number of Subsamples	1	1	1	1	1					
Crop Stage Majority	VC-V1	V1-V2	V3	R1-R2	VC-V1					
Crop Stage Minimum/Maximum	4-6"	2-6"	6-12"	6-20"	4-6"					
Pest Stage Majority	COTY-SEE	COTY-SEE	VEG-SEED	VEG-SEED	COTY-1LF					
Pest Stage Minimum/Maximum	0-24"	0-24"	0-18"	1-24"	0-6"					
Pest Density, Unit	15 YD2	15 YD2	15 YD2	15 YD2	50 FT2					
Footnote Number										
Assessed By	MK	MK	MK	MK	MK					
Rating Timing										
Days After First/Last Applic.	55 55	62 7	68 13	82 27	55 55					
Trt-Eval Interval										
Plant-Eval Interval	22 DP-1	29 DP-1	35 DP-1	49 DP-1	22 DP-1					
Days After Emergence	17 DE-	24 DE-	30 DE-	44 DE-	17 DE-					
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code						
6					6					
10					10					
14					14					
18					18					
7					7					
1	Untreated	0.0	b		0.0	b		0.0	c	
2	Canopy EX			A	90.0	a		91.3	a	
	Classic	0.34	oz ai/a	A				93.0	a	
	Express	0.1	oz ai/a	A				94.8	a	
	Roundup PowerMAX	0.77	lb ae/a	B						
	Synchrony XP			B						
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
3	Envive			A	90.0	a		92.5	a	
	Classic	0.32	oz ai/a	A				90.5	a	
	Harmony SG	0.1	oz ai/a	A				93.8	a	
	Valor SX	1	oz ai/a	A						
	Roundup PowerMAX	0.77	lb ae/a	B						
	Synchrony XP			B						
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						
4	Canopy DF	0.188	lb ai/a	A	87.5	a		85.0	ab	
	Roundup PowerMAX	0.77	lb ae/a	B				84.3	ab	
	Synchrony XP			B				93.3	a	
	Classic	0.0805	oz ai/a	B						
	Harmony SG	0.026	oz ai/a	B						
	Ammonium Sulfate	17	lb/100 gal	B						

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	TAROF	TAROF	TAROF	TAROF	SETFA
Pest Scientific Name	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>	Setaria faberi
Pest Name	Common dandeli>	Common dandeli>	Common dandeli>	Common dandeli>	Giant foxtail
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/17/09	6/24/09	6/30/09	7/14/09	6/17/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	VC-V1	V1-V2	V3	R1-R2	VC-V1
Crop Stage Minimum/Maximum	4-6"	2-6"	6-12"	6-20"	4-6"
Pest Stage Majority	COTY-SEE	COTY-SEE	VEG-SEED	VEG-SEED	COTY-1LF
Pest Stage Minimum/Maximum	0-24"	0-24"	0-18"	1-24"	0-6"
Pest Density, Unit	15 YD2	15 YD2	15 YD2	15 YD2	50 FT2
Footnote Number					
Assessed By	MK	MK	MK	MK	MK
Rating Timing					
Days After First/Last Applic.	55 55	62 7	68 13	82 27	55 55
Trt-Eval Interval					
Plant-Eval Interval	22 DP-1	29 DP-1	35 DP-1	49 DP-1	22 DP-1
Days After Emergence	17 DE-	24 DE-	30 DE-	44 DE-	17 DE-
Number of Decimals					
Trt No.	Treatment Name	Rate	Unit	Appl Code	
		6			10
					14
					18
					7
5	Roundup PowerMAX	0.77	lb ae/a	B	
	Synchrony XP			B	
	Classic	0.0805	oz ai/a	B	
	Harmony SG	0.026	oz ai/a	B	
	Ammonium Sulfate	17	lb/100 gal	B	
6	Roundup PowerMAX	0.77	lb ae/a	B	
	Classic	0.125	oz ai/a	B	
	Ammonium Sulfate	17	lb/100 gal	B	
7	Authority First	0.14	lb ai/a	A	
	Rage D-Tech	0.38	lb ai/a	A	
	Roundup PowerMAX	0.77	lb ae/a	A	
	Roundup PowerMAX	0.77	lb ae/a	B	
	Ammonium Sulfate	17	lb/100 gal	B	
LSD (P=.05)		9.95			9.52
Standard Deviation		6.45			6.41
CV		9.12			8.86
Bartlett's X2		4.935			8.538
P(Bartlett's X2)		0.177			0.129
Replicate F		0.350			1.761
Replicate Prob(F)		0.7899			0.1906
Treatment F		150.420			102.739
Treatment Prob(F)		0.0001			0.0001
					8.03
					5.40
					7.31
					1.788
					0.878
					91.8 a
					77.5 b
					85.0 ab
					88.8 a
					89.5 a
					50.0 a
					37.75
					24.50
					47.9
					0.639
					0.887
					0.660
					0.5870
					131.222
					0.0001
					1.977
					0.1713
					6.065
					0.0066

Pest Type	W Weed			W Weed			W Weed		
Pest Code	ECHCG			ECHCG			ECHCG		
Pest Scientific Name	Echinochloa cr>			Echinochloa cr>			Echinochloa cr>		
Pest Name	Common barnyar>			Common barnyar>			Common barnyar>		
Crop Code	GLXMA			GLXMA			GLXMA		
Crop Scientific Name	Glycine max			Glycine max			Glycine max		
Crop Name	Soybean			Soybean			Soybean		
Part Rated	PLOT P			PLOT P			PLOT P		
Rating Date	6/24/09			6/30/09			7/14/09		
Rating Type	CONTRO			CONTRO			CONTRO		
Rating Unit	%			%			%		
Sample Size, Unit									
Number of Subsamples	1			1			1		
Crop Stage Majority	V1-V2			V3			R1-R2		
Crop Stage Minimum/Maximum	2-6"			6-12"			6-20"		
Pest Stage Majority	1-3 LF			TILLER			TILLER		
Pest Stage Minimum/Maximum	0-18"			0-12"			6-18"		
Pest Density, Unit	33 FT2			33 FT2			33 FT2		
Footnote Number									
Assessed By	MK			MK			MK		
Rating Timing									
Days After First/Last Applic.	62 7			68 13			82 27		
Trt-Eval Interval									
Plant-Eval Interval	29 DP-1			35 DP-1			49 DP-1		
Days After Emergence	24 DE-			30 DE-			44 DE-		
Number of Decimals									
Trt No.	Treatment Name	Rate	Unit	Appl Code	11	15	19		
1	Untreated				0.0 b	0.0 b	0.0 b		
2	Canopy EX			A	96.8 a	99.5 a	97.5 a		
	Classic	0.34	oz ai/a	A					
	Express	0.1	oz ai/a	A					
	Roundup PowerMAX	0.77	lb ae/a	B					
	Synchrony XP			B					
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					
3	Envive			A	98.8 a	99.3 a	99.0 a		
	Classic	0.32	oz ai/a	A					
	Harmony SG	0.1	oz ai/a	A					
	Valor SX	1	oz ai/a	A					
	Roundup PowerMAX	0.77	lb ae/a	B					
	Synchrony XP			B					
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					
4	Canopy DF	0.188	lb ai/a	A	81.8 a	90.0 a	98.0 a		
	Roundup PowerMAX	0.77	lb ae/a	B					
	Synchrony XP			B					
	Classic	0.0805	oz ai/a	B					
	Harmony SG	0.026	oz ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					

