

FALL EARLY V. LATE BURNDOWN TIMINGS AND YIELDS

Trial ID: 08F-SEP-NTS-04 Protocol ID: 08F-SEP-NTS-04
 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. WILLIAM G. JOHNSON **Title:** ASSOCIATE PROFESSOR

Discipline: H herbicide
Trial Status: F one-year/final
Initiation Date: 10/20/08 **Planned Completion Date:** 6/24/09

Trial Location

City: BUTLERVILLE
State/Prov.: IN
Postal Code: 47223-0216
Country: USA

Objectives:

The objective of the trial is to determine if any differences occur in October or November fall timing

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. WILLIAM G. JOHNSON **Title:** ASSOCIATE PROFESSOR
Affiliation: PURDUE UNIVERSITY
Address: 915 W. STATE ST.
Location: WEST LAFAYETTE, IN USA
Postal Code: 47907 **E-mail:** WGJ@PURDUE.EDU
Phone No.: 765-494-4656

Cooperator/Landowner

Cooperator: SOUTHEASTERN-PURDUE AG CENTER **Role:** COOPERATOR
Organization: PURDUE UNIVERSITY
Address 1: 4425 E CO. RD. 350 N
City: BUTLERVILLE
State/Prov: IN
Postal Code: 477223-021 **Phone No.:** 1-812-458-6977
Country: USA United States **Fax No.:** 1-812-458-6979
E-mail: BIEHLED@PURDUE.EDU

Crop Description

Crop 1: GLXMA GLYCINE MAX Soybean
Variety: AG 3402 **Description:** RR
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 Moisture: MOIST **Soil Temperature, Unit:** 78 F
Harvest Date: 11/6/09 **Emergence Date:** 5/31/09
Harvested Width, Unit: 10 FT **Harvest Equipment:** Gleaner F3
% Standard Moisture: 13.0 **Harvested Length, Unit:** 25 FT
Weighing Equipment: Carter Manufacturing **Moisture Meter:** CART 3 inch blade

Pest Description

Pest 1 Type: W **Code:** ERICA CONYZA CANADENSIS
Common Name: Horseweed
Pest 2 Type: W **Code:** SENGL SENEIO GLABELLUS
Common Name: Cressleaf groundsel

- Pest 3 Type:** W **Code:** TAROF TARAXACUM OFFICINALE
Common Name: Common dandelion
- Pest 4 Type:** W **Code:** CERVU CERASTIUM FONTANUM VULGARE
Common Name: Mouse-ear chickweed
- Pest 5 Type:** W **Code:** ALLVI ALLIUM VINEALE
Common Name: Wild garlic
- Pest 6 Type:** W **Code:** LAMPU LAMIUM PURPUREUM
Common Name: Purple deadnettel
- Pest 7 Type:** W **Code:** LAMAM LAMIUM AMPLEXICAULE
Common Name: Henbit
- Pest 8 Type:** W **Code:** RANAB RANUNCULUS ABORTIVUS
Common Name: Smallflower buttercup
- Pest 9 Type:** W **Code:** STEME STELLARIA MEDIA
Common Name: Common chickweed
- Pest10 Type:** W **Code:** SOLCA Solanum carolinense
Common Name: Horsenettle
- Pest11 Type:** W **Code:** DIGSA Digitaria sanguinalis
Common Name: Large crabgrass
- Pest12 Type:** W **Code:** POAAN Poa annua
Common Name: Annual bluegrass
- Pest13 Type:** W **Code:** AMBEL Ambrosia artemisiifolia
Common Name: Common ragweed
- Pest14 Type:** W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory
- Pest15 Type:** W **Code:** PANDI Panicum dichotomiflorum
Common Name: Fall panicum
- Pest16 Type:** W **Code:** SOLPT Solanum ptycanthum
Common Name: Eastern black nightshade

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� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: SEPAC FIELD U41-6
% OM: 1.3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** AVONBURG
CEC: 5.7

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

Additional Measured Elements

Element	Quantity	Unit
P	13	PPM
K	68	PPM
MG	155	PPM
PA	600	PPM

Moisture and Weather Conditions

Closest Weather Station: ON RESEARCH FARM **Distance, Unit:** 0.5 MI

Application Description

	A	B	C	D
Application Date:	10/22/08	11/20/08	4/8/09	6/24/09
Time of Day:	10:00 AM	10:30 AM	9:10 AM	9:00 AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	FALLPRE	FALLPRE	PREPLA	POSPOS
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	GK MK	MK	MK	RH
Air Temperature, Unit:	46 F	41 F	38 F	76 F
% Relative Humidity:	57	61	58	71
Wind Velocity, Unit:	6 MPH	7 MPH	4 MPH	2 MPH
Wind Direction:	SE	NW	SW	SSW
Dew Presence (Y/N):	Y yes	N no	Y yes	N no
Soil Temperature, Unit:	45 F	37 F		76 F
Soil Moisture:	DRY	DRY	MOIST	MOIST
% Cloud Cover:	15	85	5	0

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	N/A	N/A	N/A	V3
Height, Unit:				7 IN
Height Minimum, Maximum:				6 8

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ERICA W	ERICA W	ERICA W	ERICA W
Stage Majority, Percent:	BOLT			
Height, Unit:	2 IN	3 IN		8 IN
Height Minimum, Maximum:	0 4	0 6		4 12
Density, Unit:	15 YD2	17 YD2		1 YD2
Pest 2 Code, Type, Scale:	SENGL W	SENGL W	SENGL W	SENGL W
Height, Unit:		5 IN	2 IN	
Height Minimum, Maximum:		0 10	1 4	
Density, Unit:		2 YD2	3 YD2	
Pest 3 Code, Type, Scale:	TAROF W	TAROF W	TAROF W	TAROF W
Height, Unit:		4 IN	4 IN	12 IN
Height Minimum, Maximum:		0 8	2 6	6 18
Density, Unit:		2 YD2	3 YD2	4 YD2
Pest 4 Code, Type, Scale:	CERVU W	CERVU W	CERVU W	CERVU W
Stage Majority, Percent:			COTY	
Height, Unit:		0.5 IN	0.75 IN	
Height Minimum, Maximum:		0 1	0 1.5	
Density, Unit:		3 YD2	1 YD2	
Pest 5 Code, Type, Scale:	ALLVI W	ALLVI W	ALLVI W	ALLVI W
Height, Unit:		8 IN		
Height Minimum, Maximum:		6 10		

Purdue University

Density, Unit:		15 YD2		
Pest 6 Code, Type, Scale:	LAMPU W	LAMPU W	LAMPU W	LAMPU W
Height, Unit:		1 IN		
Height Minimum, Maximum:		0 1.5		
Density, Unit:		3 YD2		
Pest 7 Code, Type, Scale:	LAMAM W	LAMAM W	LAMAM W	LAMAM W
Height, Unit:		0.25 IN		
Height Minimum, Maximum:		0 0.5		
Density, Unit:		2 YD2		
Pest 8 Code, Type, Scale:	RANAB W	RANAB W	RANAB W	RANAB W
Stage Majority, Percent:			COTY	
Height, Unit:		0.25 IN	1.25 IN	
Height Minimum, Maximum:		0 0.5	0 2.5	
Density, Unit:		3 YD2	2 YD2	
Pest 9 Code, Type, Scale:	STEME W	STEME W	STEME W	STEME W
Height, Unit:		0.25 IN		
Height Minimum, Maximum:		0 0.5		
Density, Unit:		3 YD2		
Pest10 Code, Type, Scale:	SOLCA W	SOLCA W	SOLCA W	SOLCA W
Pest11 Code, Type, Scale:	DIGSA W	DIGSA W	DIGSA W	DIGSA W
Pest12 Code, Type, Scale:	POAAN W	POAAN W	POAAN W	POAAN W
Pest13 Code, Type, Scale:	AMBEL W	AMBEL W	AMBEL W	AMBEL W
Height, Unit:				16 IN
Height Minimum, Maximum:				4 24
Density, Unit:				3 YD2
Pest14 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W
Height, Unit:				20 IN
Height Minimum, Maximum:				4 36
Density, Unit:				5 YD2
Pest15 Code, Type, Scale:	PANDI W	PANDI W	PANDI W	PANDI W
Height, Unit:				13 IN
Height Minimum, Maximum:				2 24
Density, Unit:				275 YD2
Pest16 Code, Type, Scale:	SOLPT W	SOLPT W	SOLPT W	SOLPT W

Application Equipment

Purdue University

	A	B	C	D
Appl. Equipment:	CO2 BACKPACK	CO2 BACKPACK	CO2 Backpack	CO2 Backpack
Equipment Type:	SPRBAC	SPRBAC	SPRBAC	SPRBAC
Operating Pressure, Unit:	17 PSI	17 PSI	17 PSI	17 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	Flat Fan	Flat Fan
Nozzle Size:	XR11002	XR11002	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN	15 IN	15 IN
Nozzles/Row:	8	8	8	8
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Boom Height, Unit:	18 IN	12 IN	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH
Carrier:	H2O	H2O	H2O	H2O
Water Hardness (ppm CaCO3):	150	150	150	150
Spray Volume, Unit:	15 GAL/AC	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size, Unit:	1.8 LITERS	1.8 LITERS	1.8 Liters	1.8 Liters
Propellant:	CO2	CO2	CO2	CO2
Tank Mix (Y/N):	N no	N no	N no	N no

Date **By** **Notes**
11/20/08 MK BOOM HEIGHT ADJUSTED TO 12 IN FROM THE GROUND DUE TO HIGH WIND.

FALL EARLY V. LATE BURNDOWN TIMINGS AND YIELDS

Trial ID: 08F-SEP-NTS-04 Protocol ID: 08F-SEP-NTS-04
 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	W Weed	W Weed
Pest Code	SENGL	SENGL	TAROF	TAROF	TAROF
Pest Scientific Name	Senecio glabel>	Senecio glabel>	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>
Pest Name	Cressleaf grou>	Cressleaf grou>	Common dandel>	Common dandel>	Common dandel>
Crop Code	N/A	N/A	N/A	N/A	GLXMA
Crop Scientific Name					Glycine max
Crop Name					Soybean
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	3/31/09	5/5/09	3/31/09	5/5/09	6/4/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					VC
Crop Stage Minimum/Maximum					1-1.5"
Pest Stage Majority	Rosette	FLOWER	Rosette	FLOWER	COTY-SEE
Pest Stage Minimum/Maximum	1-4"	1-2'	2-6"	2-14"	0-18"
Pest Density, Unit	3 YD2	1 YD2	3 YD2	1 YD2	6 YD2
Footnote Number					
Assessed By	MK JM	WGJ	MK JM	WGJ	MK
Rating Timing	April 1	May 1	April 1	May 1	June 1
Days After First/Last Applic.	160 131	195 27	160 131	195 27	225 57
Trt-Eval Interval					
Plant-Eval Interval	-56 DP-1	-21 DP-1	-56 DP-1	-21 DP-1	9 DP-1
Days After Emergence	-61 DE	-26 DE	-61 DE	-26 DE	4 DE-1
Number of Decimals					
Trt No.	Treatment Name	Rate	Unit	Appl Code	
1	Untreated	0.0	c		1
2	CANOPY EX	100.0	a		8
	CLASSIC	0.0156	lb ai/a	A	
	EXPRESS	0.007	lb ai/a	A	
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
3	CANOPY EX	100.0	a		2
	CLASSIC	0.0284	lb ai/a	A	
	EXPRESS	0.0127	lb ai/a	A	
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
4	ENVIVE	100.0	a		5
	CLASSIC	0.02	lb ai/a	A	
	HARMONY GT	0.006	lb ai/a	A	
	VALOR SX	0.063	lb ai/a	A	
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
					10
		0.0	b		0.0 b
		0.0	b		0.0 b
		0.0	b		0.0 b
		98.8	a		99.8 a
		99.8	a		99.8 a
		100.0	a		100.0 a
		100.0	a		100.0 a
		97.5	a		97.5 a
		98.8	a		98.8 a
		97.5	a		97.5 a

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	SENGL	SENGL	TAROF	TAROF	TAROF				
Pest Scientific Name	Senecio glabel>	Senecio glabel>	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>				
Pest Name	Cressleaf grou>	Cressleaf grou>	Common dandeli>	Common dandeli>	Common dandeli>				
Crop Code	N/A	N/A	N/A	N/A	GLXMA				
Crop Scientific Name					Glycine max				
Crop Name					Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	3/31/09	5/5/09	3/31/09	5/5/09	6/4/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Sample Size, Unit									
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority					VC				
Crop Stage Minimum/Maximum					1-1.5"				
Pest Stage Majority	Rosette	FLOWER	Rosette	FLOWER	COTY-SEE				
Pest Stage Minimum/Maximum	1-4"	1-2'	2-6"	2-14"	0-18"				
Pest Density, Unit	3 YD2	1 YD2	3 YD2	1 YD2	6 YD2				
Footnote Number									
Assessed By	MK JM	WGJ	MK JM	WGJ	MK				
Rating Timing	April 1	May 1	April 1	May 1	June 1				
Days After First/Last Applic.	160 131	195 27	160 131	195 27	225 57				
Trt-Eval Interval									
Plant-Eval Interval	-56 DP-1	-21 DP-1	-56 DP-1	-21 DP-1	9 DP-1				
Days After Emergence	-61 DE	-26 DE	-61 DE	-26 DE	4 DE-1				
Number of Decimals									
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	8	2	5	10
5	VALOR SX	0.064	lb ai/a	A	98.8 a	98.8 a	98.8 a	100.0 a	98.3 a
	2,4-D ESTER	0.5	lb ai/a	A					
	COC	1	% v/v	A					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
6	Roundup PowerMAX	0.77	lb ae/a	A	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	2,4-D ESTER	0.5	lb ai/a	A					
	Ammonium Sulfate	17	lb/100 gal	A					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
7	CANOPY EX			B	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
	CLASSIC	0.0156	lb ai/a	B					
	EXPRESS	0.007	lb ai/a	B					
	2,4-D ESTER	0.5	lb ai/a	B					
	COC	1	% v/v	B					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
8	CANOPY EX			B	100.0 a	100.0 a	100.0 a	100.0 a	99.8 a
	CLASSIC	0.0284	lb ai/a	B					
	EXPRESS	0.0127	lb ai/a	B					
	2,4-D ESTER	0.5	lb ai/a	B					
	COC	1	% v/v	B					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	SENGL	SENGL	TAROF	TAROF	TAROF				
Pest Scientific Name	Senecio glabel>	Senecio glabel>	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>				
Pest Name	Cressleaf grou>	Cressleaf grou>	Common dandeli>	Common dandeli>	Common dandeli>				
Crop Code	N/A	N/A	N/A	N/A	GLXMA				
Crop Scientific Name					Glycine max				
Crop Name					Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	3/31/09	5/5/09	3/31/09	5/5/09	6/4/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Sample Size, Unit									
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority					VC				
Crop Stage Minimum/Maximum					1-1.5"				
Pest Stage Majority	Rosette	FLOWER	Rosette	FLOWER	COTY-SEE				
Pest Stage Minimum/Maximum	1-4"	1-2'	2-6"	2-14"	0-18"				
Pest Density, Unit	3 YD2	1 YD2	3 YD2	1 YD2	6 YD2				
Footnote Number									
Assessed By	MK JM	WGJ	MK JM	WGJ	MK				
Rating Timing	April 1	May 1	April 1	May 1	June 1				
Days After First/Last Applic.	160 131	195 27	160 131	195 27	225 57				
Trt-Eval Interval									
Plant-Eval Interval	-56 DP-1	-21 DP-1	-56 DP-1	-21 DP-1	9 DP-1				
Days After Emergence	-61 DE	-26 DE	-61 DE	-26 DE	4 DE-1				
Number of Decimals									
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	8	2	5	10
9	ENVIVE			B	100.0 a	100.0 a	100.0 a	100.0 a	99.8 a
	CLASSIC	0.02	lb ai/a	B					
	HARMONY GT	0.006	lb ai/a	B					
	VALOR SX	0.063	lb ai/a	B					
	2,4-D ESTER	0.5	lb ai/a	B					
	COC	1	% v/v	B					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
10	VALOR SX	0.064	lb ai/a	B	100.0 a	100.0 a	100.0 a	95.0 a	96.3 a
	2,4-D ESTER	0.5	lb ai/a	B					
	COC	1	% v/v	B					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
11	Roundup PowerMAX	0.77	lb ae/a	B	100.0 a	100.0 a	95.0 a	95.0 a	99.6 a
	2,4-D ESTER	0.5	lb ai/a	B					
	Ammonium Sulfate	17	lb/100 gal	B					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					

Purdue University

Pest Type	W Weed				
Pest Code	SENGL	SENGL	TAROF	TAROF	TAROF
Pest Scientific Name	Senecio glabel>	Senecio glabel>	Taraxacum offi>	Taraxacum offi>	Taraxacum offi>
Pest Name	Cressleaf grou>	Cressleaf grou>	Common dandel>	Common dandel>	Common dandel>
Crop Code	N/A	N/A	N/A	N/A	GLXMA
Crop Scientific Name					Glycine max
Crop Name					Soybean
Part Rated	PLOT P				
Rating Date	3/31/09	5/5/09	3/31/09	5/5/09	6/4/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority					VC
Crop Stage Minimum/Maximum					1-1.5"
Pest Stage Majority	Rosette	FLOWER	Rosette	FLOWER	COTY-SEE
Pest Stage Minimum/Maximum	1-4"	1-2'	2-6"	2-14"	0-18"
Pest Density, Unit	3 YD2	1 YD2	3 YD2	1 YD2	6 YD2
Footnote Number					
Assessed By	MK JM	WGJ	MK JM	WGJ	MK
Rating Timing	April 1	May 1	April 1	May 1	June 1
Days After First/Last Applic.	160 131	195 27	160 131	195 27	225 57
Trt-Eval Interval					
Plant-Eval Interval	-56 DP-1	-21 DP-1	-56 DP-1	-21 DP-1	9 DP-1
Days After Emergence	-61 DE	-26 DE	-61 DE	-26 DE	4 DE-1
Number of Decimals					
Trt No.	1	8	2	5	10
Treatment Name					
Rate					
Unit					
Appl Code					
12 Roundup PowerMAX	0.77 lb ae/a				
2,4-D ESTER	0.5 lb ai/a				
Ammonium Sulfate	17 lb/100 gal				
Roundup PowerMAX	0.77 lb ae/a				
Ammonium Sulfate	17 lb/100 gal				
LSD (P=.05)	4.47	1.04	9.79	6.17	4.11
Standard Deviation	3.10	0.72	6.78	4.27	2.85
CV	3.41	0.79	7.57	4.71	3.13
Bartlett's X2	4.62	0.0	11.42	8.742	51.157
P(Bartlett's X2)	0.032*	.	0.01*	0.033*	0.001*
Replicate F	0.724	1.000	0.695	0.647	0.241
Replicate Prob(F)	0.5451	0.4051	0.5617	0.5904	0.8673
Treatment F	343.697	6386.455	71.168	179.346	404.633
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	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	W Weed	W Weed	W Weed	W Weed
Pest Code	TAROF	STEME	CERVU	CERVU	ALLVI
Pest Scientific Name	Taraxacum offi>	Stellaria media	Cerastium font>	Cerastium font>	Allium vineale
Pest Name	Common dandel>	Common chickwe>	Mouse-ear chic>	Mouse-ear chic>	Wild garlic
Crop Code	GLXMA	N/A	N/A	N/A	N/A
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/24/09	3/31/09	3/31/09	5/5/09	5/5/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	V3				
Crop Stage Minimum/Maximum	6-8"				
Pest Stage Majority	ROSETT	Coty	Coty	FLOWER	VEG
Pest Stage Minimum/Maximum	6-18"	0-2.5"	0-1.5"	4-10"	1-2'
Pest Density, Unit	4 YD2	2 YD2	1 YD2	1 YD2	1 YD2
Footnote Number					
Assessed By	GK & JM	MK JM	MK JM	WGJ	WGJ
Rating Timing	0 DAT D	April 1	April 1	May 1	May 1
Days After First/Last Applic.	245 77	160 131	160 131	195 27	195 27
Trt-Eval Interval					
Plant-Eval Interval	29 DP-1	-56 DP-1	-56 DP-1	-21 DP-1	-21 DP-1
Days After Emergence	24 DE-	-61 DE	-61 DE	-26 DE	-26 DE
Number of Decimals					
Trt No.	Treatment Name	Rate	Unit	Appl Code	
		20			
1	Untreated	0.0	b		0.0 d
2	CANOPY EX			A	100.0 a
	CLASSIC	0.0156	lb ai/a	A	
	EXPRESS	0.007	lb ai/a	A	
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
3	CANOPY EX			A	100.0 a
	CLASSIC	0.0284	lb ai/a	A	
	EXPRESS	0.0127	lb ai/a	A	
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
4	ENVIVE			A	92.0 a
	CLASSIC	0.02	lb ai/a	A	
	HARMONY GT	0.006	lb ai/a	A	
	VALOR SX	0.063	lb ai/a	A	
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	TAROF	STEME	CERVU	CERVU	ALLVI
Pest Scientific Name	Taraxacum offi>	Stellaria media	Cerastium font>	Cerastium font>	Allium vineale
Pest Name	Common dandel>	Common chickwe>	Mouse-ear chic>	Mouse-ear chic>	Wild garlic
Crop Code	GLXMA	N/A	N/A	N/A	N/A
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/24/09	3/31/09	3/31/09	5/5/09	5/5/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	V3				
Crop Stage Minimum/Maximum	6-8"				
Pest Stage Majority	ROSETT	Coty	Coty	FLOWER	VEG
Pest Stage Minimum/Maximum	6-18"	0-2.5"	0-1.5"	4-10"	1-2'
Pest Density, Unit	4 YD2	2 YD2	1 YD2	1 YD2	1 YD2
Footnote Number					
Assessed By	GK & JM	MK JM	MK JM	WGJ	WGJ
Rating Timing	0 DAT D	April 1	April 1	May 1	May 1
Days After First/Last Applic.	245 77	160 131	160 131	195 27	195 27
Trt-Eval Interval					
Plant-Eval Interval	29 DP-1	-56 DP-1	-56 DP-1	-21 DP-1	-21 DP-1
Days After Emergence	24 DE-	-61 DE	-61 DE	-26 DE	-26 DE
Number of Decimals					
Trt No.	Treatment Name	Rate	Unit	Appl Code	
					20
5	VALOR SX	0.064	lb ai/a	A	90.0 a
	2,4-D ESTER	0.5	lb ai/a	A	
	COC	1	% v/v	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
6	Roundup PowerMAX	0.77	lb ae/a	A	100.0 a
	2,4-D ESTER	0.5	lb ai/a	A	
	Ammonium Sulfate	17	lb/100 gal	A	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
7	CANOPY EX			B	100.0 a
	CLASSIC	0.0156	lb ai/a	B	
	EXPRESS	0.007	lb ai/a	B	
	2,4-D ESTER	0.5	lb ai/a	B	
	COC	1	% v/v	B	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	
8	CANOPY EX			B	100.0 a
	CLASSIC	0.0284	lb ai/a	B	
	EXPRESS	0.0127	lb ai/a	B	
	2,4-D ESTER	0.5	lb ai/a	B	
	COC	1	% v/v	B	
	Roundup PowerMAX	0.77	lb ae/a	D	
	Ammonium Sulfate	17	lb/100 gal	D	

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	TAROF	STEME	CERVU	CERVU	ALLVI
Pest Scientific Name	Taraxacum offi>	Stellaria media	Cerastium font>	Cerastium font>	Allium vineale
Pest Name	Common dandel>	Common chickwe>	Mouse-ear chic>	Mouse-ear chic>	Wild garlic
Crop Code	GLXMA	N/A	N/A	N/A	N/A
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/24/09	3/31/09	3/31/09	5/5/09	5/5/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	V3				
Crop Stage Minimum/Maximum	6-8"				
Pest Stage Majority	ROSETT	Coty	Coty	FLOWER	VEG
Pest Stage Minimum/Maximum	6-18"	0-2.5"	0-1.5"	4-10"	1-2'
Pest Density, Unit	4 YD2	2 YD2	1 YD2	1 YD2	1 YD2
Footnote Number					
Assessed By	GK & JM	MK JM	MK JM	WGJ	WGJ
Rating Timing	0 DAT D	April 1	April 1	May 1	May 1
Days After First/Last Applic.	245 77	160 131	160 131	195 27	195 27
Trt-Eval Interval					
Plant-Eval Interval	29 DP-1	-56 DP-1	-56 DP-1	-21 DP-1	-21 DP-1
Days After Emergence	24 DE-	-61 DE	-61 DE	-26 DE	-26 DE
Number of Decimals					
Trt No.	Treatment	Rate	Appl		
	Name	Rate Unit	Code	20	3
9	ENVIVE		B	100.0 a	100.0 a
	CLASSIC	0.02 lb ai/a	B		
	HARMONY GT	0.006 lb ai/a	B		
	VALOR SX	0.063 lb ai/a	B		
	2,4-D ESTER	0.5 lb ai/a	B		
	COC	1 % v/v	B		
	Roundup PowerMAX	0.77 lb ae/a	D		
	Ammonium Sulfate	17 lb/100 gal	D		
10	VALOR SX	0.064 lb ai/a	B	82.5 a	100.0 a
	2,4-D ESTER	0.5 lb ai/a	B		
	COC	1 % v/v	B		
	Roundup PowerMAX	0.77 lb ae/a	D		
	Ammonium Sulfate	17 lb/100 gal	D		
11	Roundup PowerMAX	0.77 lb ae/a	B	99.5 a	100.0 a
	2,4-D ESTER	0.5 lb ai/a	B		
	Ammonium Sulfate	17 lb/100 gal	B		
	Roundup PowerMAX	0.77 lb ae/a	D		
	Ammonium Sulfate	17 lb/100 gal	D		

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	TAROF	STEME	CERVU	CERVU	ALLVI
Pest Scientific Name	Taraxacum offi>	Stellaria media	Cerastium font>	Cerastium font>	Allium vineale
Pest Name	Common dandel>	Common chickwe>	Mouse-ear chic>	Mouse-ear chic>	Wild garlic
Crop Code	GLXMA	N/A	N/A	N/A	N/A
Crop Scientific Name	Glycine max				
Crop Name	Soybean				
Part Rated	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/24/09	3/31/09	3/31/09	5/5/09	5/5/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	V3				
Crop Stage Minimum/Maximum	6-8"				
Pest Stage Majority	ROSETT	Coty	Coty	FLOWER	VEG
Pest Stage Minimum/Maximum	6-18"	0-2.5"	0-1.5"	4-10"	1-2'
Pest Density, Unit	4 YD2	2 YD2	1 YD2	1 YD2	1 YD2
Footnote Number					
Assessed By	GK & JM	MK JM	MK JM	WGJ	WGJ
Rating Timing	0 DAT D	April 1	April 1	May 1	May 1
Days After First/Last Applic.	245 77	160 131	160 131	195 27	195 27
Trt-Eval Interval					
Plant-Eval Interval	29 DP-1	-56 DP-1	-56 DP-1	-21 DP-1	-21 DP-1
Days After Emergence	24 DE-	-61 DE	-61 DE	-26 DE	-26 DE
Number of Decimals					
Trt No.	Treatment	Rate	Appl Code		
		Rate Unit		20	3
12	Roundup PowerMAX	0.77 lb ae/a	C	97.0 a	87.5 a
	2,4-D ESTER	0.5 lb ai/a	C		83.8 a
	Ammonium Sulfate	17 lb/100 gal	C		100.0 a
	Roundup PowerMAX	0.77 lb ae/a	D		90.8 a
	Ammonium Sulfate	17 lb/100 gal	D		
LSD (P=.05)		17.76		10.42	11.43
Standard Deviation		12.30		7.22	7.91
CV		13.91		7.96	8.79
Bartlett's X2		23.365		0.0	3.778
P(Bartlett's X2)		0.001*		.	0.052
Replicate F		0.333		1.000	0.909
Replicate Prob(F)		0.8018		0.4051	0.4471
Treatment F		21.311		63.545	52.712
Treatment Prob(F)		0.0001		0.0001	0.0001

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	ERICA	ERICA	SOLCA	DIGSA	POAAN				
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Solanum carolinense	Digitaria sanguinalis	Poa annua				
Pest Name	Horseweed	Canada horseweed	Horsenettle	Large crabgrass	Annual bluegrass				
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	6/4/09	6/24/09	6/4/09	6/4/09	6/4/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Sample Size, Unit									
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority	VC	V3	VC	VC	VC				
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	1-1.5"	1-1.5"				
Pest Stage Majority	COTY-BOL	BOLT	COTY-BOL	2-4 LF	VEG-SEED				
Pest Stage Minimum/Maximum	0-6"	4-12"	1-4"	1-2"	1-4"				
Pest Density, Unit	1 YD2	1 YD2	2 YD2	30 FT2	15 FT2				
Footnote Number									
Assessed By	MK	GK & JM	MK	MK	MK				
Rating Timing	June 1	0 DAT D	June 1	June 1	June 1				
Days After First/Last Applic.	225 57	245 77	225 57	225 57	225 57				
Trt-Eval Interval									
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	9 DP-1	9 DP-1				
Days After Emergence	4 DE-1	24 DE-	4 DE-1	4 DE-1	4 DE-1				
Number of Decimals									
Trt No.	Treatment Name	Rate	Unit	Appl Code	9	18	11	12	13
1	Untreated				0.0 c	0.0 b	0.0 b	0.0 b	0.0 b
2	CANOPY EX			A	100.0 a	90.8 a	96.3 a	93.3 a	98.5 a
	CLASSIC	0.0156	lb ai/a	A					
	EXPRESS	0.007	lb ai/a	A					
	2,4-D ESTER	0.5	lb ai/a	A					
	COC	1	% v/v	A					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
3	CANOPY EX			A	100.0 a	98.3 a	100.0 a	99.5 a	100.0 a
	CLASSIC	0.0284	lb ai/a	A					
	EXPRESS	0.0127	lb ai/a	A					
	2,4-D ESTER	0.5	lb ai/a	A					
	COC	1	% v/v	A					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					
4	ENVIVE			A	100.0 a	97.5 a	99.3 a	99.3 a	99.0 a
	CLASSIC	0.02	lb ai/a	A					
	HARMONY GT	0.006	lb ai/a	A					
	VALOR SX	0.063	lb ai/a	A					
	2,4-D ESTER	0.5	lb ai/a	A					
	COC	1	% v/v	A					
	Roundup PowerMAX	0.77	lb ae/a	D					
	Ammonium Sulfate	17	lb/100 gal	D					

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERICA	SOLCA	DIGSA	POAAN
Pest Scientific Name	Conyza canadens>	Conyza canadens>	Solanum caroli>	Digitaria sang>	Poa annua
Pest Name	Horseweed	Canada horsewe>	Horsenettle	Large crabgrass	Annual bluegra>
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	6/4/09	6/24/09	6/4/09	6/4/09	6/4/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	VC	V3	VC	VC	VC
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	1-1.5"	1-1.5"
Pest Stage Majority	COTY-BOL	BOLT	COTY-BOL	2-4 LF	VEG-SEED
Pest Stage Minimum/Maximum	0-6"	4-12"	1-4"	1-2"	1-4"
Pest Density, Unit	1 YD2	1 YD2	2 YD2	30 FT2	15 FT2
Footnote Number					
Assessed By	MK	GK & JM	MK	MK	MK
Rating Timing	June 1	0 DAT D	June 1	June 1	June 1
Days After First/Last Applic.	225 57	245 77	225 57	225 57	225 57
Trt-Eval Interval					
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	9 DP-1	9 DP-1
Days After Emergence	4 DE-1	24 DE-	4 DE-1	4 DE-1	4 DE-1
Number of Decimals					
Trt No.	Treatment	Rate	Appl		
	Name	Rate Unit	Code	9	18
5	VALOR SX	0.064 lb ai/a	A	98.8 b	75.0 a
	2,4-D ESTER	0.5 lb ai/a	A		92.0 a
	COC	1 % v/v	A		96.5 a
	Roundup PowerMAX	0.77 lb ae/a	D		90.8 a
	Ammonium Sulfate	17 lb/100 gal	D		
6	Roundup PowerMAX	0.77 lb ae/a	A	99.8 a	75.0 a
	2,4-D ESTER	0.5 lb ai/a	A		99.8 a
	Ammonium Sulfate	17 lb/100 gal	A		99.0 a
	Roundup PowerMAX	0.77 lb ae/a	D		75.3 a
	Ammonium Sulfate	17 lb/100 gal	D		
7	CANOPY EX		B	100.0 a	84.8 a
	CLASSIC	0.0156 lb ai/a	B		97.3 a
	EXPRESS	0.007 lb ai/a	B		98.0 a
	2,4-D ESTER	0.5 lb ai/a	B		99.5 a
	COC	1 % v/v	B		
	Roundup PowerMAX	0.77 lb ae/a	D		
	Ammonium Sulfate	17 lb/100 gal	D		
8	CANOPY EX		B	100.0 a	99.5 a
	CLASSIC	0.0284 lb ai/a	B		99.8 a
	EXPRESS	0.0127 lb ai/a	B		99.5 a
	2,4-D ESTER	0.5 lb ai/a	B		
	COC	1 % v/v	B		
	Roundup PowerMAX	0.77 lb ae/a	D		
	Ammonium Sulfate	17 lb/100 gal	D		

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	ERICA	SOLCA	DIGSA	POAAN
Pest Scientific Name	Conyza canadens>	Conyza canadens>	Solanum caroli>	Digitaria sang>	Poa annua
Pest Name	Horseweed	Canada horsewe>	Horsenettle	Large crabgrass	Annual bluegra>
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	6/4/09	6/24/09	6/4/09	6/4/09	6/4/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Sample Size, Unit					
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	VC	V3	VC	VC	VC
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	1-1.5"	1-1.5"
Pest Stage Majority	COTY-BOL	BOLT	COTY-BOL	2-4 LF	VEG-SEED
Pest Stage Minimum/Maximum	0-6"	4-12"	1-4"	1-2"	1-4"
Pest Density, Unit	1 YD2	1 YD2	2 YD2	30 FT2	15 FT2
Footnote Number					
Assessed By	MK	GK & JM	MK	MK	MK
Rating Timing	June 1	0 DAT D	June 1	June 1	June 1
Days After First/Last Applic.	225 57	245 77	225 57	225 57	225 57
Trt-Eval Interval					
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	9 DP-1	9 DP-1
Days After Emergence	4 DE-1	24 DE-	4 DE-1	4 DE-1	4 DE-1
Number of Decimals					
Trt No.	Treatment	Rate	Appl		
	Name	Rate Unit	Code	9	18
9	ENVIVE		B	100.0 a	95.0 a
	CLASSIC	0.02 lb ai/a	B		96.3 a
	HARMONY GT	0.006 lb ai/a	B		99.3 a
	VALOR SX	0.063 lb ai/a	B		99.8 a
	2,4-D ESTER	0.5 lb ai/a	B		
	COC	1 % v/v	B		
	Roundup PowerMAX	0.77 lb ae/a	D		
	Ammonium Sulfate	17 lb/100 gal	D		
10	VALOR SX	0.064 lb ai/a	B	100.0 a	81.3 a
	2,4-D ESTER	0.5 lb ai/a	B		99.0 a
	COC	1 % v/v	B		98.8 a
	Roundup PowerMAX	0.77 lb ae/a	D		95.7 a
	Ammonium Sulfate	17 lb/100 gal	D		
11	Roundup PowerMAX	0.77 lb ae/a	B	99.6 a	59.8 a
	2,4-D ESTER	0.5 lb ai/a	B		99.0 a
	Ammonium Sulfate	17 lb/100 gal	B		99.8 a
	Roundup PowerMAX	0.77 lb ae/a	D		95.0 a
	Ammonium Sulfate	17 lb/100 gal	D		

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	ERICA	ERICA	SOLCA	DIGSA	POAAN			
Pest Scientific Name	Conyza canadensis	Conyza canadensis	Solanum carolinense	Digitaria sanguinalis	Poa annua			
Pest Name	Horseweed	Canada horseweed	Horsenettle	Large crabgrass	Annual bluegrass			
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	6/4/09	6/24/09	6/4/09	6/4/09	6/4/09			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Sample Size, Unit								
Number of Subsamples	1	1	1	1	1			
Crop Stage Majority	VC	V3	VC	VC	VC			
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	1-1.5"	1-1.5"			
Pest Stage Majority	COTY-BOL	BOLT	COTY-BOL	2-4 LF	VEG-SEED			
Pest Stage Minimum/Maximum	0-6"	4-12"	1-4"	1-2"	1-4"			
Pest Density, Unit	1 YD2	1 YD2	2 YD2	30 FT2	15 FT2			
Footnote Number								
Assessed By	MK	GK & JM	MK	MK	MK			
Rating Timing	June 1	0 DAT D	June 1	June 1	June 1			
Days After First/Last Applic.	225 57	245 77	225 57	225 57	225 57			
Trt-Eval Interval								
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	9 DP-1	9 DP-1			
Days After Emergence	4 DE-1	24 DE-	4 DE-1	4 DE-1	4 DE-1			
Number of Decimals								
Trt No.	Treatment							
	Rate	Rate	Rate	Rate	Rate			
	Unit	Unit	Unit	Unit	Unit			
	Code	Code	Code	Code	Code			
	9	18	11	12	13			
12	Roundup PowerMAX	0.77 lb ae/a	C	99.1 ab	56.0 a	99.8 a	99.0 a	98.7 a
	2,4-D ESTER	0.5 lb ai/a	C					
	Ammonium Sulfate	17 lb/100 gal	C					
	Roundup PowerMAX	0.77 lb ae/a	D					
	Ammonium Sulfate	17 lb/100 gal	D					
LSD (P=.05)	0.70	30.61	6.21	4.35	20.68			
Standard Deviation	0.49	21.20	4.30	3.02	14.30			
CV	0.53	27.87	4.78	3.35	16.32			
Bartlett's X2	2.829	44.07	53.664	54.107	94.233			
P(Bartlett's X2)	0.419	0.001*	0.001*	0.001*	0.001*			
Replicate F	1.230	5.123	1.225	1.603	0.716			
Replicate Prob(F)	0.3154	0.0054	0.3167	0.2081	0.5507			
Treatment F	14025.099	6.986	174.484	355.936	15.851			
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001			

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBEL	AMBEL	IPOSS	IPOSS	PANDI	PANDI				
Pest Scientific Name	Ambrosia artem>	Ambrosia artem>	Ipomoea sp.	Ipomoea sp.	Panicum dichot>	Panicum dichot>				
Pest Name	Common ragweed	Common ragweed	Morning glory	Morning glory	Fall panicum	Fall panicum				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
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 P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	6/4/09	6/24/09	6/4/09	6/24/09	6/4/09	6/24/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Sample Size, Unit										
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	VC	V3	VC	V3	VC	V3				
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	6-8"	1-1.5"	6-8"				
Pest Stage Majority	COTY-3NO		COTY-VIN	VINE	1-3 LF					
Pest Stage Minimum/Maximum	0-6"	4-24"	0-10"	4-36"	0-8"	2-24"				
Pest Density, Unit	3 YD2	2 YD2	3 YD2	5 YD2	15 FT2	275 YD2				
Footnote Number										
Assessed By	MK	GK & JM	MK	GK & JM	MK	GK & JM				
Rating Timing	June 1	0 DAT D	June 1	0 DAT D	June 1	0 DAT D				
Days After First/Last Applic.	225 57	245 77	225 57	245 77	225 57	245 77				
Trt-Eval Interval										
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	29 DP-1	9 DP-1	29 DP-1				
Days After Emergence	4 DE-1	24 DE-	4 DE-1	24 DE-	4 DE-1	24 DE-				
Number of Decimals										
Trt No.	Treatment Name	Rate	Unit	Appl Code	14	19	15	21	16	22
1	Untreated	0.0	b		0.0 b	0.0 b	0.0 b	0.0 b	0.0 c	0.0 a
2	CANOPY EX CLASSIC	0.0156	lb ai/a	A	97.8 a	57.5 a	97.0 a	55.0 ab	85.0 a	16.3 a
	EXPRESS	0.007	lb ai/a	A						
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
3	CANOPY EX CLASSIC	0.0284	lb ai/a	A	100.0 a	97.5 a	98.0 a	51.9 ab	92.5 a	44.8 a
	EXPRESS	0.0127	lb ai/a	A						
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
4	ENVIVE CLASSIC	0.02	lb ai/a	A	99.0 a	71.3 a	90.8 a	40.0 ab	96.5 a	51.3 a
	HARMONY GT	0.006	lb ai/a	A						
	VALOR SX	0.063	lb ai/a	A						
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						

Purdue University

					W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
					AMBEL	AMBEL	IPOSS	IPOSS	PANDI	PANDI
					Ambrosia artem>	Ambrosia artem>	Ipomoea sp.	Ipomoea sp.	Panicum dichot>	Panicum dichot>
					Common ragweed	Common ragweed	Morning glory	Morning glory	Fall panicum	Fall panicum
					GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
					Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
					Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
					PLOT P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
					6/4/09	6/24/09	6/4/09	6/24/09	6/4/09	6/24/09
					CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
					%	%	%	%	%	%
					1	1	1	1	1	1
					VC	V3	VC	V3	VC	V3
					1-1.5"	6-8"	1-1.5"	6-8"	1-1.5"	6-8"
					COTY-3NO		COTY-VIN	VINE	1-3 LF	
					0-6"	4-24"	0-10"	4-36"	0-8"	2-24"
					3 YD2	2 YD2	3 YD2	5 YD2	15 FT2	275 YD2
					MK	GK & JM	MK	GK & JM	MK	GK & JM
					June 1	0 DAT D	June 1	0 DAT D	June 1	0 DAT D
					225 57	245 77	225 57	245 77	225 57	245 77
					9 DP-1	29 DP-1	9 DP-1	29 DP-1	9 DP-1	29 DP-1
					4 DE-1	24 DE-	4 DE-1	24 DE-	4 DE-1	24 DE-
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	14	19	15	21	16	22
5	VALOR SX	0.064	lb ai/a	A	96.0 a	65.0 a	92.0 a	63.8 a	85.8 a	33.8 a
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
6	Roundup PowerMAX	0.77	lb ae/a	A	99.0 a	84.6 a	51.8 a	51.3 ab	68.5 ab	40.0 a
	2,4-D ESTER	0.5	lb ai/a	A						
	Ammonium Sulfate	17	lb/100 gal	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
7	CANOPY EX			B	98.3 a	81.3 a	95.3 a	66.3 a	81.3 a	17.5 a
	CLASSIC	0.0156	lb ai/a	B						
	EXPRESS	0.007	lb ai/a	B						
	2,4-D ESTER	0.5	lb ai/a	B						
	COC	1	% v/v	B						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
8	CANOPY EX			B	99.8 a	91.3 a	99.0 a	75.0 a	95.3 a	48.8 a
	CLASSIC	0.0284	lb ai/a	B						
	EXPRESS	0.0127	lb ai/a	B						
	2,4-D ESTER	0.5	lb ai/a	B						
	COC	1	% v/v	B						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBEL	AMBEL	IPOSS	IPOSS	PANDI	PANDI
Pest Scientific Name	Ambrosia artem>	Ambrosia artem>	Ipomoea sp.	Ipomoea sp.	Panicum dichot>	Panicum dichot>
Pest Name	Common ragweed	Common ragweed	Morning glory	Morning glory	Fall panicum	Fall panicum
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
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 P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P
Rating Date	6/4/09	6/24/09	6/4/09	6/24/09	6/4/09	6/24/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%	%
Sample Size, Unit						
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	VC	V3	VC	V3	VC	V3
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	6-8"	1-1.5"	6-8"
Pest Stage Majority	COTY-3NO		COTY-VIN	VINE	1-3 LF	
Pest Stage Minimum/Maximum	0-6"	4-24"	0-10"	4-36"	0-8"	2-24"
Pest Density, Unit	3 YD2	2 YD2	3 YD2	5 YD2	15 FT2	275 YD2
Footnote Number						
Assessed By	MK	GK & JM	MK	GK & JM	MK	GK & JM
Rating Timing	June 1	0 DAT D	June 1	0 DAT D	June 1	0 DAT D
Days After First/Last Applic.	225 57	245 77	225 57	245 77	225 57	245 77
Trt-Eval Interval						
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	29 DP-1	9 DP-1	29 DP-1
Days After Emergence	4 DE-1	24 DE-	4 DE-1	24 DE-	4 DE-1	24 DE-
Number of Decimals						
Trt No.	Treatment	Rate	Appl			
	Name	Rate	Unit	Code	14	19
9	ENVIVE		B		100.0 a	98.8 a
	CLASSIC	0.02 lb ai/a	B			98.8 a
	HARMONY GT	0.006 lb ai/a	B			40.0 ab
	VALOR SX	0.063 lb ai/a	B			96.0 a
	2,4-D ESTER	0.5 lb ai/a	B			52.5 a
	COC	1 % v/v	B			
	Roundup PowerMAX	0.77 lb ae/a	D			
	Ammonium Sulfate	17 lb/100 gal	D			
10	VALOR SX	0.064 lb ai/a	B		79.5 a	37.5 ab
	2,4-D ESTER	0.5 lb ai/a	B			90.8 a
	COC	1 % v/v	B			66.3 a
	Roundup PowerMAX	0.77 lb ae/a	D			88.3 a
	Ammonium Sulfate	17 lb/100 gal	D			12.5 a
11	Roundup PowerMAX	0.77 lb ae/a	B		73.6 a	50.0 a
	2,4-D ESTER	0.5 lb ai/a	B			70.7 a
	Ammonium Sulfate	17 lb/100 gal	B			78.8 a
	Roundup PowerMAX	0.77 lb ae/a	D			50.7 b
	Ammonium Sulfate	17 lb/100 gal	D			25.0 a

Purdue University

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	AMBEL	AMBEL	IPOSS	IPOSS	PANDI	PANDI				
Pest Scientific Name	Ambrosia artem>	Ambrosia artem>	Ipomoea sp.	Ipomoea sp.	Panicum dichot>	Panicum dichot>				
Pest Name	Common ragweed	Common ragweed	Morning glory	Morning glory	Fall panicum	Fall panicum				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA				
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 P	PLOT P	PLOT P	PLOT P	PLOT P	PLOT P				
Rating Date	6/4/09	6/24/09	6/4/09	6/24/09	6/4/09	6/24/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%	%				
Sample Size, Unit										
Number of Subsamples	1	1	1	1	1	1				
Crop Stage Majority	VC	V3	VC	V3	VC	V3				
Crop Stage Minimum/Maximum	1-1.5"	6-8"	1-1.5"	6-8"	1-1.5"	6-8"				
Pest Stage Majority	COTY-3NO		COTY-VIN	VINE	1-3 LF					
Pest Stage Minimum/Maximum	0-6"	4-24"	0-10"	4-36"	0-8"	2-24"				
Pest Density, Unit	3 YD2	2 YD2	3 YD2	5 YD2	15 FT2	275 YD2				
Footnote Number										
Assessed By	MK	GK & JM	MK	GK & JM	MK	GK & JM				
Rating Timing	June 1	0 DAT D	June 1	0 DAT D	June 1	0 DAT D				
Days After First/Last Applic.	225 57	245 77	225 57	245 77	225 57	245 77				
Trt-Eval Interval										
Plant-Eval Interval	9 DP-1	29 DP-1	9 DP-1	29 DP-1	9 DP-1	29 DP-1				
Days After Emergence	4 DE-1	24 DE-	4 DE-1	24 DE-	4 DE-1	24 DE-				
Number of Decimals										
Trt No.	Treatment				Rate		Appl			
	Name				Rate		Code			
					14		19			
					15		21			
					16		22			
12	Roundup PowerMAX	0.77 lb ae/a	C	99.5 a	91.5 a	97.1 a	71.4 a	78.5 a	30.0 a	
	2,4-D ESTER	0.5 lb ai/a	C							
	Ammonium Sulfate	17 lb/100 gal	C							
	Roundup PowerMAX	0.77 lb ae/a	D							
	Ammonium Sulfate	17 lb/100 gal	D							
LSD (P=.05)					18.19	37.78	29.24	38.87	22.90	41.53
Standard Deviation					12.60	26.17	20.25	26.92	15.86	28.76
CV					14.5	38.01	24.77	48.98	20.73	92.72
Bartlett's X2					75.578	42.188	93.035	3.147	32.855	8.682
P(Bartlett's X2)					0.001*	0.001*	0.001*	0.978	0.001*	0.563
Replicate F					0.363	1.645	0.827	5.371	1.490	0.248
Replicate Prob(F)					0.7804	0.2000	0.4889	0.0043	0.2365	0.8623
Treatment F					20.794	4.970	8.402	2.540	11.988	1.409
Treatment Prob(F)					0.0001	0.0002	0.0001	0.0203	0.0001	0.2166

Pest Type	W Weed									
Pest Code	SOLPT									
Pest Scientific Name	Solanum ptycan>									
Pest Name	Eastern black >									
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	6/4/09	11/6/09	11/6/09							
Rating Type	CONTRO	YIELD	YIELD							
Rating Unit	%	LB	BU							
Sample Size, Unit										
Number of Subsamples	1	1	1							
Crop Stage Majority	VC	Mature	Mature							
Crop Stage Minimum/Maximum	1-1.5"									
Pest Stage Majority	COTY									
Pest Stage Minimum/Maximum	0-0.5"									
Pest Density, Unit	30 YD2									
Footnote Number										
Assessed By	MK	PM	PM							
Rating Timing	June 1									
Days After First/Last Applic.	225 57	380 135	380 135							
Trt-Eval Interval										
Plant-Eval Interval	9 DP-1	164 DP-1	164 DP-1							
Days After Emergence	4 DE-1	159 DE	159 DE							
Number of Decimals	1									
Trt No.	Treatment Name	Rate	Unit	Appl Code	17	23	24			
1	Untreated	0.0	b		5.78	c	16.8	c		
2	CANOPY EX			A	90.5	a	21.38	ab	62.1	ab
	CLASSIC	0.0156	lb ai/a	A						
	EXPRESS	0.007	lb ai/a	A						
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
3	CANOPY EX			A	99.3	a	20.00	b	58.1	b
	CLASSIC	0.0284	lb ai/a	A						
	EXPRESS	0.0127	lb ai/a	A						
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						
4	ENVIVE			A	100.0	a	19.63	b	57.0	b
	CLASSIC	0.02	lb ai/a	A						
	HARMONY GT	0.006	lb ai/a	A						
	VALOR SX	0.063	lb ai/a	A						
	2,4-D ESTER	0.5	lb ai/a	A						
	COC	1	% v/v	A						
	Roundup PowerMAX	0.77	lb ae/a	D						
	Ammonium Sulfate	17	lb/100 gal	D						

Purdue University

Pest Type	W Weed		
Pest Code	SOLPT		
Pest Scientific Name	Solanum ptycan>		
Pest Name	Eastern black >		
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	6/4/09	11/6/09	11/6/09
Rating Type	CONTRO	YIELD	YIELD
Rating Unit	%	LB	BU
Sample Size, Unit			
Number of Subsamples	1	1	1
Crop Stage Majority	VC	Mature	Mature
Crop Stage Minimum/Maximum	1-1.5"		
Pest Stage Majority	COTY		
Pest Stage Minimum/Maximum	0-0.5"		
Pest Density, Unit	30 YD2		
Footnote Number			
Assessed By	MK	PM	PM
Rating Timing	June 1		
Days After First/Last Applic.	225 57	380 135	380 135
Trt-Eval Interval			
Plant-Eval Interval	9 DP-1	164 DP-1	164 DP-1
Days After Emergence	4 DE-1	159 DE	159 DE
Number of Decimals			1
Trt No.	Treatment Name	Rate	Appl Code
		Rate Unit	
17			
23			
24			
9	ENVIVE		B
	CLASSIC	0.02 lb ai/a	B
	HARMONY GT	0.006 lb ai/a	B
	VALOR SX	0.063 lb ai/a	B
	2,4-D ESTER	0.5 lb ai/a	B
	COC	1 % v/v	B
	Roundup PowerMAX	0.77 lb ae/a	D
	Ammonium Sulfate	17 lb/100 gal	D
92.3 a			
19.83 b			
57.6 b			
10	VALOR SX	0.064 lb ai/a	B
	2,4-D ESTER	0.5 lb ai/a	B
	COC	1 % v/v	B
	Roundup PowerMAX	0.77 lb ae/a	D
	Ammonium Sulfate	17 lb/100 gal	D
96.0 a			
20.50 ab			
59.5 ab			
11	Roundup PowerMAX	0.77 lb ae/a	B
	2,4-D ESTER	0.5 lb ai/a	B
	Ammonium Sulfate	17 lb/100 gal	B
	Roundup PowerMAX	0.77 lb ae/a	D
	Ammonium Sulfate	17 lb/100 gal	D
96.3 a			
18.65 b			
54.2 b			

