

Purdue University

Glyphosate Resistant Horseweed Efficacy - Spring Applied Treatments (Misc.)

Trial ID: 04-SEPAC-GRH-EFMS
Location: SEPAC

Study Dir.: Dr. Bill Johnson
Investigator: Dr. Bill Johnson

GENERAL TRIAL INFORMATION

Study Director: Dr. Bill Johnson
Investigator: Dr. Bill Johnson

TRIAL LOCATION

City: Butlerville
State/Prov.: IN
Postal Code: 47223
Country: USA
E-Longitude of LL Corner °: 274.479650 N-Latitude of LL Corner °: 39.035380
Altitude of LL Corner: 780.00 Unit: FT
Directions: Field S1 (south end)
Field S1 (center)

COOPERATOR/LANDOWNER

Cooperator: Southeast Purdue Ag Center Country: USA
Address 1: 4425 E Co Rd 350 N Phone No: 812-458-6977
Address 2: PO Box 216 Fax No: 812-458-6979
City: Butlerville
State/Prov: IN
Postal Code: 47223

Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	RANAB	BUTTERCUP, SMALLFLOWER	RANUNCULUS ABORTIVUS L.
2.	LAMSP	henbit/purple deadnettle	Lamium species
3.	SENGL	GROUNDSEL, CRESSLEAF	Senecio glabellus Poir.
4.	ERPVE	Whitlowgrass, spring	Draba verna L.
5.	POAAN	Bluegrass, Annual	Poa annua L.
6.	CERVU	CHICKWEED, MOUSEEAR	CERASTIUM VULGATUM L.
7.	ERICA	HORSEWEED	ERIGERON CANADENSIS L.
8.	VERAR	SPEEDWELL, CORN	VERONICA ARVENSIS L.
9.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.) VILL./CYR.
10.	CARPA	BITTERCRESS, SMALLFLOWERED	Cardamine parviflora L.

Crop 1: GLXMA SOYBEAN Variety: Harvest Residue
Row Spacing: 7.5 IN

Crop 2: GLXMA SOYBEAN Variety: P93M80
Planting Date: 11/May/2004 Planting Method: DRILLED
Rate: 204500 S/A Depth: 1 IN
Row Spacing: 7.5 IN

SITE AND DESIGN

Plot Width, Unit: 10 FT Plot Length, Unit: 30 FT Reps: 4
Tillage Type: No-Till Study Design: RANDOMIZED COMPLETE BLOCK

	Previous Crops	Previous Pesticides	Year
1.	soybean	glyphosate	2003

MAINTENANCE

Field Prep./Maintenance:

May 8, 2004 Maintenance application

SEPAC crew applied a blanket treatment of Fusion (20 oz/acre) on the entire study area (Field S1) to help control the annual bluegrass and false timothy that was taking over the field [We requested this application].

June 24, 2004

Purdue University

SEPAC crew applied a blanket treatment of glyphosate to the entire study area (Field S1) at our request. This was a planned application to occur approximately 3-5 weeks after planting. Future ratings will be referred to as DA-M (days after maintenance application).

SOIL DESCRIPTION

% OM:	1.5	Texture:	Silt Loam
pH:	6.2	Soil Name:	Avonburg
CEC:	6.0	Fert. Level:	P - 24 ppm, K - 64 ppm

APPLICATION DESCRIPTION

	A	B	C
Application Date:	2/Apr/2004	16/Apr/2004	7/May/2004
Time of Day:	1100-1120	0930-1045	1030-1045
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	30 EPP	15 EPP	0 EPP
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	46 F	67 F	73 F
% Relative Humidity:	64		58
Wind Velocity, Unit:	6 MPH	8 MPH	9 MPH
Soil Temp., Unit:	43 F	51 F	66 F
Soil Moisture:	saturated	dry surf	moist
% Cloud Cover:	95		90

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GLXMA residue	GLXMA residue	GLXMA residue
Stage Scale:	25-30%	25-30%	20-25%
Crop 2 Code, Stage:	GLXMA	GLXMA	GLXMA
Stage Scale:	preplant	preplant	preplant

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	RANAB	RANAB	RANAB
Stage Scale:	4-6 lf	6-8", fl	4-12"
Density, Unit:	9-99 M2	9-40 M2	5-20 M2
Weed 2 Code, Stage:	LAMSP	LAMSP	LAMSP
Stage Scale:	3 in, fl.	2-4", fl	1-5"
Density, Unit:	1-10 M2	1-4 M2	5-25 M2
Weed 3 Code, Stage:	SENGL	SENGL	SENGL
Weed 4 Code, Stage:	ERPVE	ERPVE	ERPVE
Stage Scale:	1-2", fl	2-3", fl	
Density, Unit:	1-10 M2	4-35 M2	
Weed 5 Code, Stage:	POAAN mix	POAAN mix	POAAN mix
Stage Scale:	2-4"	6-8"	1-8"
Density, Unit:	9-70 M2	4-15 M2	2-20 M2
Weed 6 Code, Stage:	CERVU	CERVU	CERVU
Stage Scale:	1-2"	1-3"	5-6"
Density, Unit:	0-20 M2	4-15 M2	1-5 M2
Weed 7 Code, Stage:	ERICA	ERICA	ERICA
Stage Scale:			<1", 4lf
Density, Unit:			1-10 M2
Weed 8 Code, Stage:	VERAR	VERAR	VERAR
Stage Scale:	1-2"	1-3"	1-6"
Density, Unit:	0-10 M2	1-10 M2	9-40 M2
Weed 9 Code, Stage:	STEME	STEME	STEME
Stage Scale:	1-3"	1-3"	6-8"
Density, Unit:	0-20 M2	1-15 M2	1-15 M2
Weed10 Code, Stage:	CARPA	CARPA	CARPA
Stage Scale:	1.5" dia		
Density, Unit:	0-10 M2		

Purdue University

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 Backp	CO2 Backp	CO2 Backp
Operating Pressure:	25 psi	25 psi	25 psi
Nozzle Type:	VS	VS	VS
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	10 FT	10 FT	10 FT
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Carrier:	water	water	water
Spray Volume, Unit:	15 gpa	15 gpa	15 gpa
Propellant:	CO2	CO2	CO2

Purdue University

Glyphosate Resistant Horseweed Efficacy - Spring Applied Treatments (Misc.)

Trial ID: 04-SEPAC-GRH-EFMS
 Location: SEPAC

Study Dir.: Dr. Bill Johnson
 Investigator: Dr. Bill Johnson

Weed Code				RANAB	ERPVE	POAAN	CERVU	RANAB
Crop Code				PLAQUA P				
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Data Type				%control	%control	%control	%control	%control
Rating Unit				16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	28/Apr/2004
Rating Date				na	na	na	na	na
Crop Stage				4-8", fl	1-2", fl	2-4"	2-3"	8-10",fl
Crop Stage Scale				3-4 FT2	1-2 FT2	2-3 FT2	1 FT2	4 FT2
Weed Stage				Jeff & Vince	Jeff & Vince	Jeff & Vince	Jeff & Vince	Bill & Reece
Weed Density, Unit				14 DA-A	14 DA-A	14 DA-A	14 DA-A	12 DA-B
Assessed By				0	0	0	0	0
Trt-Eval Interval								
# Subsamples, Dec.								
Trt Treatment	Rate	Rate Unit	Grow Stg	1	2	3	4	5
No. Name								
1 Untreated Check (post 1) Roundup Weathermax AMS	0.77	lb ae/a	3-5 WAP 3-5 WAP					
2 FirstRate Valor NIS AMS Roundup Weathermax AMS	0.021 0.063 0.77	lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP					62 c
3 2,4-D Ester FirstRate Valor NIS AMS Roundup Weathermax AMS	0.5 0.021 0.063 0.77	lb ai/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP					92 ab
4 Roundup Original Max (ae) FirstRate Valor NIS AMS Roundup Weathermax AMS	0.41 0.021 0.063 0.77	lb ae/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP					86 abc
5 V-10142 Crop Oil Conc AMS Roundup Weathermax AMS	0.2 0.77	lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP					29 d
6 E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	94 a	98 a	95 a	84 a	100 a
7 E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	95 a	96 a	95 a	85 a	99 a
8 E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP					81 abc
9 E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP					78 abc

Purdue University

Weed Code				RANAB	ERPVE	POAAN	CERVU	RANAB	
Crop Code				PLAQUA P					
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Data Type				%control	%control	%control	%control	%control	
Rating Unit				16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	28/Apr/2004	
Rating Date				na	na	na	na	na	
Crop Stage				4-8", fl	1-2", fl	2-4"	2-3"	8-10",fl	
Crop Stage Scale				3-4 FT2	1-2 FT2	2-3 FT2	1 FT2	4 FT2	
Weed Stage				Jeff & Vince	Jeff & Vince	Jeff & Vince	Jeff & Vince	Bill & Reece	
Weed Density, Unit				14 DA-A	14 DA-A	14 DA-A	14 DA-A	12 DA-B	
Assessed By				0	0	0	0	0	
Trt-Eval Interval									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Grow Unit	Stg	1	2	3	4	5
10	E-99 (2,4-D a.e.)	0.51	lb ae/a	0 EPP					
	Roundup Weathermax	0.77	lb ae/a	0 EPP					
	AMS			0 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
11	E-99 (2,4-D a.e.)	1.01	lb ae/a	0 EPP					
	Roundup Weathermax	0.77	lb ae/a	0 EPP					
	AMS			0 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
12	Gangster - 1.8 oz								95 ab
	Valor	0.048	lb ai/a	15 EPP					
	FirstRate	0.0157	lb ai/a	15 EPP					
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	Crop Oil Conc			15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
13	Python	0.04	lb ai/a	15 EPP					80 abc
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	Crop Oil Conc			15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
14	FirstRate	0.0157	lb ai/a	15 EPP					85 abc
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	Crop Oil Conc			15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
15	Roundup Weathermax	0.77	lb ae/a	30 EPP	93 a	96 a	95 a	79 a	99 a
	AMS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
16	Clarity	0.125	lb ai/a	30 EPP	94 a	96 a	95 a	81 a	99 a
	2,4-D Ester	0.5	lb ae/a	30 EPP					
	Roundup Weathermax	0.77	lb ae/a	30 EPP					
	AMS			30 EPP					
	NIS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
17	Clarity	0.25	lb ai/a	30 EPP	94 a	94 a	95 a	66 a	100 a
	Roundup Weathermax	0.77	lb ae/a	30 EPP					
	AMS			30 EPP					
	NIS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					

Purdue University

Weed Code				RANAB	ERPVE	POAAN	CERVU	RANAB	
Crop Code				PLAQUA P					
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Data Type				%control	%control	%control	%control	%control	
Rating Unit				16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	28/Apr/2004	
Rating Date				na	na	na	na	na	
Crop Stage				4-8", fl	1-2", fl	2-4"	2-3"	8-10",fl	
Crop Stage Scale				3-4 FT2	1-2 FT2	2-3 FT2	1 FT2	4 FT2	
Weed Stage				Jeff & Vince	Jeff & Vince	Jeff & Vince	Jeff & Vince	Bill & Reece	
Weed Density, Unit				14 DA-A	14 DA-A	14 DA-A	14 DA-A	12 DA-B	
Assessed By				0	0	0	0	0	
Trt-Eval Interval									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	Grow Stg	1	2	3	4	5
18	2,4-D Ester	0.5	lb ae/a	30 EPP	96 a	96 a	95 a	88 a	99 a
	Roundup Weathermax	0.77	lb ae/a	30 EPP					
	AMS			30 EPP					
	NIS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
19	Roundup Weathermax	0.77	lb ae/a	15 EPP					69 bc
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
20	Roundup Weathermax	0.77	lb ae/a	0 EPP					
	AMS			0 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
21	Untreated Check (post 2)								
	Roundup Weathermax	1.55	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
22	Aim	0.0078	lb ai/a	15 EPP					87 abc
	Roundup Weathermax	0.387	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
23	Aim	0.0078	lb ai/a	15 EPP					81 abc
	Roundup Weathermax	0.387	lb ae/a	15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
24	Aim	0.0117	lb ai/a	15 EPP					83 abc
	Roundup Weathermax	0.56	lb ae/a	15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
25	Roundup Weathermax	0.387	lb ae/a	15 EPP					64 c
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
26	Roundup Weathermax	0.56	lb ae/a	15 EPP					63 c
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
27	Roundup Weathermax	0.77	lb ae/a	15 EPP					70 bc
	AMS			15 EPP					
LSD (P=.05)					3.2	3.3	0.0	15.9	15.9
Standard Deviation					2.1	2.2	0.0	10.6	11.2
CV					2.27	2.31	0.0	13.16	13.77
Grand Mean					94.04	96.04	95.0	80.42	81.69
Bartlett's X2					2.973	5.438	0.0	6.202	113.29
P(Bartlett's X2)					0.562	0.365	.	0.287	0.001*

Purdue University

Weed Code	RANAB	ERPVE	POAAN	CERVU	RANAB
Crop Code					
Part Rated	PLAQUA P				
Rating Data Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%control	%control	%control	%control	%control
Rating Date	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	28/Apr/2004
Crop Stage	na	na	na	na	na
Crop Stage Scale					
Weed Stage	4-8", fl	1-2", fl	2-4"	2-3"	8-10",fl
Weed Density, Unit	3-4 FT2	1-2 FT2	2-3 FT2	1 FT2	4 FT2
Assessed By	Jeff & Vince	Jeff & Vince	Jeff & Vince	Jeff & Vince	Bill & Reece
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	12 DA-B
# Subsamples, Dec.	0	0	0	0	0
Replicate F	1.183	9.789	0.000	2.742	6.264
Replicate Prob(F)	0.3493	0.0008	1.0000	0.0798	0.0009
Treatment F	1.000	1.225	0.000	2.047	9.652
Treatment Prob(F)	0.4509	0.3452	1.0000	0.1297	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.

Purdue University

Weed Code				LAMSP	ERPVE	POAAN	CERVU	VERAR
Crop Code				PLAQUA P				
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Data Type				%control	%control	%control	%control	%control
Rating Unit				28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004
Rating Date				na	na	na	na	na
Crop Stage				3-5", fl	2-3", fl	4-8"	4-6"	3-4"
Crop Stage Scale				1-4 FT2	1-2 FT2	2-4 FT2	1-2 FT2	1-3 FT2
Weed Stage				Bill & Reece				
Weed Density, Unit				12 DA-B				
Assessed By				0	0	0	0	0
Trt-Eval Interval								
# Subsamples, Dec.								
Trt No.	Treatment Name	Rate	Grow Unit Stg	6	7	8	9	10
1	Untreated Check (post 1) Roundup Weathermax AMS	0.77 lb ae/a	3-5 WAP 3-5 WAP					
2	FirstRate Valor NIS AMS Roundup Weathermax AMS	0.021 lb ai/a 0.063 lb ai/a 0.77 lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	69 a	98 a	19 c	73 a	100 a
3	2,4-D Ester FirstRate Valor NIS AMS Roundup Weathermax AMS	0.5 lb ai/a 0.021 lb ai/a 0.063 lb ai/a 0.77 lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	100 a	99 a	35 b	80 a	100 a
4	Roundup Original Max (ae) FirstRate Valor NIS AMS Roundup Weathermax AMS	0.41 lb ae/a 0.021 lb ai/a 0.063 lb ai/a 0.77 lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	98 a	92 a	96 a	90 a	100 a
5	V-10142 Crop Oil Conc AMS Roundup Weathermax AMS	0.2 lb ai/a 0.77 lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	65 a	71 a	0 d	47 a	75 a
6	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 lb ae/a 0.77 lb ae/a 0.77 lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	95 a	100 a	100 a	96 a	100 a
7	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 lb ae/a 0.77 lb ae/a 0.77 lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	90 a	100 a	99 a	96 a	100 a
8	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 lb ae/a 0.77 lb ae/a 0.77 lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	100 a	86 a	92 a	90 a	100 a
9	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 lb ae/a 0.77 lb ae/a 0.77 lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	83 a	94 a	82 a	60 a	100 a

Purdue University

Weed Code				LAMSP	ERPVE	POAAN	CERVU	VERAR
Crop Code				PLAQUA P				
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Data Type				%control	%control	%control	%control	%control
Rating Unit				28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004
Rating Date				na	na	na	na	na
Crop Stage				3-5", fl	2-3", fl	4-8"	4-6"	3-4"
Crop Stage Scale				1-4 FT2	1-2 FT2	2-4 FT2	1-2 FT2	1-3 FT2
Weed Stage				Bill & Reece				
Weed Density, Unit				12 DA-B				
Assessed By				0	0	0	0	0
Trt-Eval Interval								
# Subsamples, Dec.								
Trt No.	Treatment Name	Rate	Grow Unit Stg	6	7	8	9	10
10	E-99 (2,4-D a.e.)	0.51 lb ae/a	0 EPP					
	Roundup Weathermax	0.77 lb ae/a	0 EPP					
	AMS		0 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
11	E-99 (2,4-D a.e.)	1.01 lb ae/a	0 EPP					
	Roundup Weathermax	0.77 lb ae/a	0 EPP					
	AMS		0 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
12	Gangster - 1.8 oz			100 a	97 a	97 a	78 a	100 a
	Valor	0.048 lb ai/a	15 EPP					
	FirstRate	0.0157 lb ai/a	15 EPP					
	GF-1279 (IPA-salt glyph)	0.75 lb ae/a	15 EPP					
	2,4-D Ester	0.5 lb ae/a	15 EPP					
	Crop Oil Conc		15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
13	Python	0.04 lb ai/a	15 EPP	92 a	96 a	95 a	70 a	100 a
	GF-1279 (IPA-salt glyph)	0.75 lb ae/a	15 EPP					
	2,4-D Ester	0.5 lb ae/a	15 EPP					
	Crop Oil Conc		15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
14	FirstRate	0.0157 lb ai/a	15 EPP	90 a	98 a	97 a	84 a	100 a
	GF-1279 (IPA-salt glyph)	0.75 lb ae/a	15 EPP					
	2,4-D Ester	0.5 lb ae/a	15 EPP					
	Crop Oil Conc		15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
15	Roundup Weathermax	0.77 lb ae/a	30 EPP	96 a	100 a	100 a	96 a	99 a
	AMS		30 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
16	Clarity	0.125 lb ai/a	30 EPP	92 a	100 a	98 a	98 a	100 a
	2,4-D Ester	0.5 lb ae/a	30 EPP					
	Roundup Weathermax	0.77 lb ae/a	30 EPP					
	AMS		30 EPP					
	NIS		30 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
17	Clarity	0.25 lb ai/a	30 EPP	85 a	100 a	99 a	93 a	100 a
	Roundup Weathermax	0.77 lb ae/a	30 EPP					
	AMS		30 EPP					
	NIS		30 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					

Purdue University

Weed Code				LAMSP	ERPVE	POAAN	CERVU	VERAR
Crop Code				PLAQUA P				
Part Rated				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Data Type				%control	%control	%control	%control	%control
Rating Unit				28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004
Rating Date				na	na	na	na	na
Crop Stage				3-5", fl	2-3", fl	4-8"	4-6"	3-4"
Crop Stage Scale				1-4 FT2	1-2 FT2	2-4 FT2	1-2 FT2	1-3 FT2
Weed Stage				Bill & Reece				
Weed Density, Unit				12 DA-B				
Assessed By				0	0	0	0	0
Trt-Eval Interval								
# Subsamples, Dec.								
Trt No.	Treatment Name	Rate	Grow Unit Stg	6	7	8	9	10
18	2,4-D Ester	0.5 lb ae/a	30 EPP	84 a	100 a	100 a	93 a	100 a
	Roundup Weathermax	0.77 lb ae/a	30 EPP					
	AMS		30 EPP					
	NIS		30 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
19	Roundup Weathermax	0.77 lb ae/a	15 EPP	83 a	81 a	94 a	84 a	100 a
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
20	Roundup Weathermax	0.77 lb ae/a	0 EPP					
	AMS		0 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
21	Untreated Check (post 2)							
	Roundup Weathermax	1.55 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
22	Aim	0.0078 lb ai/a	15 EPP	78 a	84 a	88 a	46 a	100 a
	Roundup Weathermax	0.387 lb ae/a	15 EPP					
	2,4-D Ester	0.5 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
23	Aim	0.0078 lb ai/a	15 EPP	90 a	94 a	97 a	85 a	100 a
	Roundup Weathermax	0.387 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
24	Aim	0.0117 lb ai/a	15 EPP	81 a	90 a	91 a	71 a	100 a
	Roundup Weathermax	0.56 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
25	Roundup Weathermax	0.387 lb ae/a	15 EPP	81 a	86 a	90 a	75 a	100 a
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
26	Roundup Weathermax	0.56 lb ae/a	15 EPP	71 a	72 a	87 a	75 a	100 a
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
27	Roundup Weathermax	0.77 lb ae/a	15 EPP	100 a	97 a	96 a	96 a	100 a
	AMS		15 EPP					
LSD (P=.05)				27.6	18.2	11.0	28.5	15.1
Standard Deviation				19.5	12.9	7.8	20.2	10.7
CV				22.35	13.94	9.26	25.03	10.8
Grand Mean				87.33	92.47	84.11	80.63	98.83
Bartlett's X2				63.863	61.145	59.519	61.427	16.782
P(Bartlett's X2)				0.001*	0.001*	0.001*	0.001*	0.001*

Purdue University

Weed Code	LAMSP	ERPVE	POAAN	CERVU	VERAR
Crop Code					
Part Rated	PLAQUA P				
Rating Data Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%control	%control	%control	%control	%control
Rating Date	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004
Crop Stage	na	na	na	na	na
Crop Stage Scale					
Weed Stage	3-5", fl	2-3", fl	4-8"	4-6"	3-4"
Weed Density, Unit	1-4 FT2	1-2 FT2	2-4 FT2	1-2 FT2	1-3 FT2
Assessed By	Bill & Reece				
Trt-Eval Interval	12 DA-B				
# Subsamples, Dec.	0	0	0	0	0
Replicate F	3.526	3.887	4.815	2.519	0.979
Replicate Prob(F)	0.0198	0.0130	0.0044	0.0660	0.4084
Treatment F	1.134	1.930	51.136	2.273	0.996
Treatment Prob(F)	0.3393	0.0236	0.0001	0.0065	0.4805

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.

Purdue University

Weed Code				STEME	RANAB	CERVU	ERICA	VERAR	
Crop Code				PLAQUA P	GLXMA	GLXMA	GLXMA	GLXMA	
Part Rated				PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	PLAQUA P	
Rating Data Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit				%control	%control	%control	%control	%control	
Rating Date				28/Apr/2004	21/May/2004	21/May/2004	21/May/2004	21/May/2004	
Crop Stage				na	VC/V1	VC/V1	VC/V1	VC/V1	
Crop Stage Scale									
Weed Stage				4-6"	2-4"	1-6"	1-2"	4-6"	
Weed Density, Unit				1-2 FT2	25 M2	35 M2	5-20M2	80+ M2	
Assessed By				Bill & Reece	Earl & Reece	Earl & Reece	Earl & Reece	Earl & Reece	
Trt-Eval Interval				12 DA-B	14 DA-C	14 DA-C	14 DA-C	14 DA-C	
# Subsamples, Dec.				0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Grow Stg	11	12	13	14	15
1	Untreated Check (post 1) Roundup Weathermax AMS	0.77	lb ae/a	3-5 WAP 3-5 WAP					
2	FirstRate Valor NIS AMS Roundup Weathermax AMS	0.021 0.063 0.77	lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	74 a	98 a	70 a	96 a	93 ab
3	2,4-D Ester FirstRate Valor NIS AMS Roundup Weathermax AMS	0.5 0.021 0.063 0.77	lb ai/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	83 a	100 a	68 a	99 a	98 a
4	Roundup Original Max (ae) FirstRate Valor NIS AMS Roundup Weathermax AMS	0.41 0.021 0.063 0.77	lb ae/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	100 a	99 a	98 a	98 a	99 a
5	V-10142 Crop Oil Conc AMS Roundup Weathermax AMS	0.2 0.77	lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	55 a	99 a	41 b	96 a	33 c
6	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	99 a	92 abc	86 a	90 a	81 ab
7	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	100 a	91 abc	94 a	88 a	84 ab
8	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	100 a	95 ab	100 a	100 a	90 ab
9	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	100 a	99 a	96 a	97 a	95 ab

Purdue University

Weed Code				STEME	RANAB	CERVU	ERICA	VERAR	
Crop Code				PLAQUA P	GLXMA	GLXMA	GLXMA	GLXMA	
Part Rated				PLAQUA P					
Rating Data Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit				%control	%control	%control	%control	%control	
Rating Date				28/Apr/2004	21/May/2004	21/May/2004	21/May/2004	21/May/2004	
Crop Stage				na	VC/V1	VC/V1	VC/V1	VC/V1	
Crop Stage Scale									
Weed Stage				4-6"	2-4"	1-6"	1-2"	4-6"	
Weed Density, Unit				1-2 FT2	25 M2	35 M2	5-20M2	80+ M2	
Assessed By				Bill & Reece	Earl & Reece	Earl & Reece	Earl & Reece	Earl & Reece	
Trt-Eval Interval				12 DA-B	14 DA-C	14 DA-C	14 DA-C	14 DA-C	
# Subsamples, Dec.				0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Grow Stg	11	12	13	14	15
10	E-99 (2,4-D a.e.)	0.51	lb ae/a	0 EPP		100 a	100 a	100 a	100 a
	Roundup Weathermax	0.77	lb ae/a	0 EPP					
	AMS			0 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
11	E-99 (2,4-D a.e.)	1.01	lb ae/a	0 EPP		100 a	100 a	100 a	100 a
	Roundup Weathermax	0.77	lb ae/a	0 EPP					
	AMS			0 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
12	Gangster - 1.8 oz				93 a	99 a	100 a	100 a	99 a
	Valor	0.048	lb ai/a	15 EPP					
	FirstRate	0.0157	lb ai/a	15 EPP					
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	Crop Oil Conc			15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
13	Python	0.04	lb ai/a	15 EPP	100 a	100 a	100 a	99 a	100 a
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	Crop Oil Conc			15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
14	FirstRate	0.0157	lb ai/a	15 EPP	98 a	100 a	100 a	100 a	100 a
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
	2,4-D Ester	0.5	lb ae/a	15 EPP					
	Crop Oil Conc			15 EPP					
	AMS			15 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
15	Roundup Weathermax	0.77	lb ae/a	30 EPP	100 a	84 cd	90 a	69 b	44 c
	AMS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
16	Clarity	0.125	lb ai/a	30 EPP	100 a	80 d	95 a	95 a	85 ab
	2,4-D Ester	0.5	lb ae/a	30 EPP					
	Roundup Weathermax	0.77	lb ae/a	30 EPP					
	AMS			30 EPP					
	NIS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					
17	Clarity	0.25	lb ai/a	30 EPP	100 a	80 d	92 a	91 a	65 b
	Roundup Weathermax	0.77	lb ae/a	30 EPP					
	AMS			30 EPP					
	NIS			30 EPP					
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
	AMS			3-5 WAP					

Purdue University

Weed Code				STEME	RANAB	CERVU	ERICA	VERAR
Crop Code					GLXMA	GLXMA	GLXMA	GLXMA
Part Rated				PLAQUA P				
Rating Data Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit				%control	%control	%control	%control	%control
Rating Date				28/Apr/2004	21/May/2004	21/May/2004	21/May/2004	21/May/2004
Crop Stage				na	VC/V1	VC/V1	VC/V1	VC/V1
Crop Stage Scale								
Weed Stage				4-6"	2-4"	1-6"	1-2"	4-6"
Weed Density, Unit				1-2 FT2	25 M2	35 M2	5-20M2	80+ M2
Assessed By				Bill & Reece	Earl & Reece	Earl & Reece	Earl & Reece	Earl & Reece
Trt-Eval Interval				12 DA-B	14 DA-C	14 DA-C	14 DA-C	14 DA-C
# Subsamples, Dec.				0	0	0	0	0
Trt No.	Treatment Name	Rate	Grow Unit Stg	11	12	13	14	15
18	2,4-D Ester	0.5 lb ae/a	30 EPP	100 a	86 bcd	79 a	90 a	80 ab
	Roundup Weathermax	0.77 lb ae/a	30 EPP					
	AMS		30 EPP					
	NIS		30 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
19	Roundup Weathermax	0.77 lb ae/a	15 EPP	94 a	97 a	99 a	96 a	85 ab
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
20	Roundup Weathermax	0.77 lb ae/a	0 EPP		100 a	100 a	95 a	99 a
	AMS		0 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
21	Untreated Check (post 2)							
	Roundup Weathermax	1.55 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
22	Aim	0.0078 lb ai/a	15 EPP	85 a	98 a	91 a	96 a	93 ab
	Roundup Weathermax	0.387 lb ae/a	15 EPP					
	2,4-D Ester	0.5 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
23	Aim	0.0078 lb ai/a	15 EPP	90 a	93 ab	96 a	92 a	84 ab
	Roundup Weathermax	0.387 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
24	Aim	0.0117 lb ai/a	15 EPP	100 a	98 a	94 a	90 a	90 ab
	Roundup Weathermax	0.56 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
25	Roundup Weathermax	0.387 lb ae/a	15 EPP	78 a	98 a	99 a	87 a	73 ab
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
26	Roundup Weathermax	0.56 lb ae/a	15 EPP	100 a	97 a	97 a	91 a	85 ab
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
27	Roundup Weathermax	0.77 lb ae/a	15 EPP	100 a	94 ab	99 a	95 a	75 ab
	AMS		15 EPP					
LSD (P=.05)				24.7	6.5	21.6	11.6	17.2
Standard Deviation				17.5	4.6	15.3	8.2	12.2
CV				18.78	4.88	16.71	8.71	14.32
Grand Mean				93.01	94.94	91.28	93.96	85.1
Bartlett's X2				27.361	51.448	101.367	53.098	74.415
P(Bartlett's X2)				0.001*	0.001*	0.001*	0.001*	0.001*

Purdue University

Weed Code	STEME	RANAB	CERVU	ERICA	VERAR
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA
Part Rated	PLAQUA P				
Rating Data Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%control	%control	%control	%control	%control
Rating Date	28/Apr/2004	21/May/2004	21/May/2004	21/May/2004	21/May/2004
Crop Stage	na	VC/V1	VC/V1	VC/V1	VC/V1
Crop Stage Scale					
Weed Stage	4-6"	2-4"	1-6"	1-2"	4-6"
Weed Density, Unit	1-2 FT2	25 M2	35 M2	5-20M2	80+ M2
Assessed By	Bill & Reece	Earl & Reece	Earl & Reece	Earl & Reece	Earl & Reece
Trt-Eval Interval	12 DA-B	14 DA-C	14 DA-C	14 DA-C	14 DA-C
# Subsamples, Dec.	0	0	0	0	0
Replicate F	2.327	6.599	1.620	1.712	2.205
Replicate Prob(F)	0.0831	0.0005	0.1922	0.1722	0.0949
Treatment F	1.798	7.467	3.253	2.652	7.928
Treatment Prob(F)	0.0386	0.0001	0.0001	0.0008	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.

Purdue University

Weed Code				ERICA	ERICA	GLXMA	ERICA	GLXMA	
Crop Code				GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Part Rated				PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA C	
Rating Data Type				CONTRO	CONTRO	PHYGEN	CONTRO	PHYGEN	
Rating Unit				%control	%control	%injury	%control	%injury	
Rating Date				3/Jun/2004	21/Jun/2004	21/Jun/2004	8/Jul/2004	8/Jul/2004	
Crop Stage					V5-V6,R1	V5-V6,R1	1" pods	1" pods	
Crop Stage Scale					12"	12"			
Weed Stage				0.5 - 4"	2-18"		6-24"		
Weed Density, Unit				50+ M2	1-60M2		1-5 M2		
Assessed By				Bill & Vince	Earl & Reece	Earl & Reece	Bill & Reece	Bill & Reece	
Trt-Eval Interval				27 DA-C	45 DA-C	45 DA-C	14 DA-M	14 DA-M	
# Subsamples, Dec.				0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Grow Stg	16	17	18	19	20
1	Untreated Check (post 1) Roundup Weathermax AMS	0.77	lb ae/a	3-5 WAP 3-5 WAP			0 b		0 b
2	FirstRate Valor NIS AMS Roundup Weathermax AMS	0.021 0.063 0.77	lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	82 ab	96 a	0 b	100 a	4 b
3	2,4-D Ester FirstRate Valor NIS AMS Roundup Weathermax AMS	0.5 0.021 0.063 0.77	lb ai/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	85 ab	75 ab	0 b	98 a	5 b
4	Roundup Original Max (ae) FirstRate Valor NIS AMS Roundup Weathermax AMS	0.41 0.021 0.063 0.77	lb ae/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	98 a	94 a	0 b	98 a	3 b
5	V-10142 Crop Oil Conc AMS Roundup Weathermax AMS	0.2 0.77	lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	96 a	76 ab	73 a	88 a	69 a
6	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	71 ab	45 ab	0 b	70 a	3 b
7	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP	73 ab	36 ab	0 b	51 a	0 b
8	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	99 a	95 a	0 b	96 a	10 b
9	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP	96 a	78 ab	0 b	90 a	9 b

Purdue University

Weed Code	ERICA	ERICA	GLXMA	ERICA	GLXMA			
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
Part Rated	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA C			
Rating Data Type	CONTRO	CONTRO	PHYGEN	CONTRO	PHYGEN			
Rating Unit	%control	%control	%injury	%control	%injury			
Rating Date	3/Jun/2004	21/Jun/2004	21/Jun/2004	8/Jul/2004	8/Jul/2004			
Crop Stage		V5-V6,R1	V5-V6,R1	1" pods	1" pods			
Crop Stage Scale		12"	12"					
Weed Stage	0.5 - 4"	2-18"		6-24"				
Weed Density, Unit	50+ M2	1-60M2		1-5 M2				
Assessed By	Bill & Vince	Earl & Reece	Earl & Reece	Bill & Reece	Bill & Reece			
Trt-Eval Interval	27 DA-C	45 DA-C	45 DA-C	14 DA-M	14 DA-M			
# Subsamples, Dec.	0	0	0	0	0			
Trt Treatment	Rate	Grow						
No. Name	Rate	Unit	Stg	16	17	18	19	20
10 E-99 (2,4-D a.e.)	0.51	lb ae/a	0 EPP	99 a	95 a	0 b	100 a	19 b
Roundup Weathermax	0.77	lb ae/a	0 EPP					
AMS			0 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
11 E-99 (2,4-D a.e.)	1.01	lb ae/a	0 EPP	99 a	97 a	0 b	99 a	19 b
Roundup Weathermax	0.77	lb ae/a	0 EPP					
AMS			0 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
12 Gangster - 1.8 oz				99 a	94 a	0 b	100 a	8 b
Valor	0.048	lb ai/a	15 EPP					
FirstRate	0.0157	lb ai/a	15 EPP					
GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
2,4-D Ester	0.5	lb ae/a	15 EPP					
Crop Oil Conc			15 EPP					
AMS			15 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
13 Python	0.04	lb ai/a	15 EPP	86 ab	79 ab	0 b	99 a	0 b
GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
2,4-D Ester	0.5	lb ae/a	15 EPP					
Crop Oil Conc			15 EPP					
AMS			15 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
14 FirstRate	0.0157	lb ai/a	15 EPP	99 a	100 a	0 b	100 a	5 b
GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP					
2,4-D Ester	0.5	lb ae/a	15 EPP					
Crop Oil Conc			15 EPP					
AMS			15 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
15 Roundup Weathermax	0.77	lb ae/a	30 EPP	39 b	20 b	0 b	48 a	0 b
AMS			30 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
16 Clarity	0.125	lb ai/a	30 EPP	70 ab	76 ab	0 b	85 a	5 b
2,4-D Ester	0.5	lb ae/a	30 EPP					
Roundup Weathermax	0.77	lb ae/a	30 EPP					
AMS			30 EPP					
NIS			30 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					
17 Clarity	0.25	lb ai/a	30 EPP	95 a	64 ab	0 b	86 a	0 b
Roundup Weathermax	0.77	lb ae/a	30 EPP					
AMS			30 EPP					
NIS			30 EPP					
Roundup Weathermax	0.77	lb ae/a	3-5 WAP					
AMS			3-5 WAP					

Purdue University

Weed Code				ERICA	ERICA	GLXMA	ERICA	GLXMA
Crop Code				GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Part Rated				PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA C
Rating Data Type				CONTRO	CONTRO	PHYGEN	CONTRO	PHYGEN
Rating Unit				%control	%control	%injury	%control	%injury
Rating Date				3/Jun/2004	21/Jun/2004	21/Jun/2004	8/Jul/2004	8/Jul/2004
Crop Stage					V5-V6,R1	V5-V6,R1	1" pods	1" pods
Crop Stage Scale					12"	12"		
Weed Stage				0.5 - 4"	2-18"		6-24"	
Weed Density, Unit				50+ M2	1-60M2		1-5 M2	
Assessed By				Bill & Vince	Earl & Reece	Earl & Reece	Bill & Reece	Bill & Reece
Trt-Eval Interval				27 DA-C	45 DA-C	45 DA-C	14 DA-M	14 DA-M
# Subsamples, Dec.				0	0	0	0	0
Trt No.	Treatment Name	Rate	Grow Unit Stg	16	17	18	19	20
18	2,4-D Ester	0.5 lb ae/a	30 EPP	76 ab	51 ab	0 b	69 a	0 b
	Roundup Weathermax	0.77 lb ae/a	30 EPP					
	AMS		30 EPP					
	Roundup Weathermax	0.77 lb ae/a	30 EPP					
	AMS		3-5 WAP					
	AMS		3-5 WAP					
19	Roundup Weathermax	0.77 lb ae/a	15 EPP	83 ab	69 ab	0 b	78 a	3 b
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
20	Roundup Weathermax	0.77 lb ae/a	0 EPP	87 ab	45 ab	0 b	65 a	4 b
	AMS		0 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
21	Untreated Check (post 2)					0 b		10 b
	Roundup Weathermax	1.55 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
22	Aim	0.0078 lb ai/a	15 EPP	82 ab	48 ab	0 b	86 a	4 b
	Roundup Weathermax	0.387 lb ae/a	15 EPP					
	2,4-D Ester	0.5 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
23	Aim	0.0078 lb ai/a	15 EPP	84 ab	46 ab	0 b	64 a	11 b
	Roundup Weathermax	0.387 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
24	Aim	0.0117 lb ai/a	15 EPP	61 ab	39 ab	0 b	49 a	6 b
	Roundup Weathermax	0.56 lb ae/a	15 EPP					
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
25	Roundup Weathermax	0.387 lb ae/a	15 EPP	81 ab	46 ab	0 b	64 a	9 b
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
26	Roundup Weathermax	0.56 lb ae/a	15 EPP	70 ab	61 ab	0 b	78 a	10 b
	AMS		15 EPP					
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP					
	AMS		3-5 WAP					
27	Roundup Weathermax	0.77 lb ae/a	15 EPP	93 a	68 ab	0 b	78 a	14 b
	AMS		15 EPP					
LSD (P=.05)				29.7	36.8	2.4	30.3	13.0
Standard Deviation				21.0	26.0	1.7	21.4	9.2
CV				24.96	38.45	62.07	26.29	109.85
Grand Mean				84.08	67.62	2.69	81.43	8.38
Bartlett's X2				106.358	52.098	0.0	47.504	14.213
P(Bartlett's X2)				0.001*	0.001*	.	0.001*	0.82

Purdue University

Weed Code	ERICA	ERICA	GLXMA	ERICA	GLXMA
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Part Rated	PLAQUA P	PLAQUA P	PLAQUA C	PLAQUA P	PLAQUA C
Rating Data Type	CONTRO	CONTRO	PHYGEN	CONTRO	PHYGEN
Rating Unit	%control	%control	%injury	%control	%injury
Rating Date	3/Jun/2004	21/Jun/2004	21/Jun/2004	8/Jul/2004	8/Jul/2004
Crop Stage		V5-V6,R1	V5-V6,R1	1" pods	1" pods
Crop Stage Scale		12"	12"		
Weed Stage	0.5 - 4"	2-18"		6-24"	
Weed Density, Unit	50+ M2	1-60M2		1-5 M2	
Assessed By	Bill & Vince	Earl & Reece	Earl & Reece	Bill & Reece	Bill & Reece
Trt-Eval Interval	27 DA-C	45 DA-C	45 DA-C	14 DA-M	14 DA-M
# Subsamples, Dec.	0	0	0	0	0
Replicate F	2.651	5.433	1.000	0.549	1.955
Replicate Prob(F)	0.0552	0.0020	0.3975	0.6506	0.1276
Treatment F	1.953	3.145	280.333	2.638	8.232
Treatment Prob(F)	0.0157	0.0001	0.0001	0.0008	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.

Purdue University

Weed Code				ERICA
Crop Code				GLXMA
Part Rated				PLAQUA P
Rating Data Type				CONTRO
Rating Unit				%control
Rating Date				5/Oct/2004
Crop Stage				pre-harv
Crop Stage Scale				
Weed Stage				12-42"
Weed Density, Unit				1-2 M2
Assessed By				Reece & Vince
Trt-Eval Interval				103 DA-M
# Subsamples, Dec.				0
Trt No.	Treatment Name	Rate	Unit	Grow Stg
				21
1	Untreated Check (post 1) Roundup Weathermax AMS	0.77	lb ae/a	3-5 WAP 3-5 WAP
2	FirstRate Valor NIS AMS Roundup Weathermax AMS	0.021 0.063 0.77	lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP
3	2,4-D Ester FirstRate Valor NIS AMS Roundup Weathermax AMS	0.5 0.021 0.063 0.77	lb ai/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP
4	Roundup Original Max (ae) FirstRate Valor NIS AMS Roundup Weathermax AMS	0.41 0.021 0.063 0.77	lb ae/a lb ai/a lb ai/a lb ae/a	15 EPP 15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP
5	V-10142 Crop Oil Conc AMS Roundup Weathermax AMS	0.2	lb ai/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP
6	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP
7	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	30 EPP 30 EPP 30 EPP 3-5 WAP 3-5 WAP
8	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	0.51 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP
9	E-99 (2,4-D a.e.) Roundup Weathermax AMS Roundup Weathermax AMS	1.01 0.77 0.77	lb ae/a lb ae/a lb ae/a	15 EPP 15 EPP 15 EPP 3-5 WAP 3-5 WAP

Purdue University

Weed Code				ERICA
Crop Code				GLXMA
Part Rated				PLAQUA P
Rating Data Type				CONTRO
Rating Unit				%control
Rating Date				5/Oct/2004
Crop Stage				pre-harv
Crop Stage Scale				
Weed Stage				12-42"
Weed Density, Unit				1-2 M2
Assessed By				Reece & Vince
Trt-Eval Interval				103 DA-M
# Subsamples, Dec.				0
Trt No.	Treatment Name	Rate	Unit	Grow Stg
				21
10	E-99 (2,4-D a.e.)	0.51	lb ae/a	0 EPP
	Roundup Weathermax	0.77	lb ae/a	0 EPP
	AMS			0 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
11	E-99 (2,4-D a.e.)	1.01	lb ae/a	0 EPP
	Roundup Weathermax	0.77	lb ae/a	0 EPP
	AMS			0 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
12	Gangster - 1.8 oz			100 a
	Valor	0.048	lb ai/a	15 EPP
	FirstRate	0.0157	lb ai/a	15 EPP
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP
	2,4-D Ester	0.5	lb ae/a	15 EPP
	Crop Oil Conc			15 EPP
	AMS			15 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
13	Python	0.04	lb ai/a	15 EPP
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP
	2,4-D Ester	0.5	lb ae/a	15 EPP
	Crop Oil Conc			15 EPP
	AMS			15 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
14	FirstRate	0.0157	lb ai/a	15 EPP
	GF-1279 (IPA-salt glyph)	0.75	lb ae/a	15 EPP
	2,4-D Ester	0.5	lb ae/a	15 EPP
	Crop Oil Conc			15 EPP
	AMS			15 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
15	Roundup Weathermax	0.77	lb ae/a	30 EPP
	AMS			30 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
16	Clarity	0.125	lb ai/a	30 EPP
	2,4-D Ester	0.5	lb ae/a	30 EPP
	Roundup Weathermax	0.77	lb ae/a	30 EPP
	AMS			30 EPP
	NIS			30 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP
17	Clarity	0.25	lb ai/a	30 EPP
	Roundup Weathermax	0.77	lb ae/a	30 EPP
	AMS			30 EPP
	NIS			30 EPP
	Roundup Weathermax	0.77	lb ae/a	3-5 WAP
	AMS			3-5 WAP

Purdue University

Weed Code				ERICA
Crop Code				GLXMA
Part Rated				PLAQUA P
Rating Data Type				CONTRO
Rating Unit				%control
Rating Date				5/Oct/2004
Crop Stage				pre-harv
Crop Stage Scale				
Weed Stage				12-42"
Weed Density, Unit				1-2 M2
Assessed By				Reece & Vince
Trt-Eval Interval				103 DA-M
# Subsamples, Dec.				0
Trt No.	Treatment Name	Rate	Grow Stg	
		Rate Unit		21
18	2,4-D Ester	0.5 lb ae/a	30 EPP	73 ab
	Roundup Weathermax	0.77 lb ae/a	30 EPP	
	AMS		30 EPP	
	NIS		30 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
19	Roundup Weathermax	0.77 lb ae/a	15 EPP	81 ab
	AMS		15 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
20	Roundup Weathermax	0.77 lb ae/a	0 EPP	53 ab
	AMS		0 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
21	Untreated Check (post 2)			
	Roundup Weathermax	1.55 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
22	Aim	0.0078 lb ai/a	15 EPP	56 ab
	Roundup Weathermax	0.387 lb ae/a	15 EPP	
	2,4-D Ester	0.5 lb ae/a	15 EPP	
	AMS		15 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
23	Aim	0.0078 lb ai/a	15 EPP	38 ab
	Roundup Weathermax	0.387 lb ae/a	15 EPP	
	AMS		15 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
24	Aim	0.0117 lb ai/a	15 EPP	21 b
	Roundup Weathermax	0.56 lb ae/a	15 EPP	
	AMS		15 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
25	Roundup Weathermax	0.387 lb ae/a	15 EPP	41 ab
	AMS		15 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
26	Roundup Weathermax	0.56 lb ae/a	15 EPP	68 ab
	AMS		15 EPP	
	Roundup Weathermax	0.77 lb ae/a	3-5 WAP	
	AMS		3-5 WAP	
27	Roundup Weathermax	0.77 lb ae/a	15 EPP	61 ab
	AMS		15 EPP	
LSD (P=.05)				40.8
Standard Deviation				28.8
CV				38.51
Grand Mean				74.9
Bartlett's X2				15.21
P(Bartlett's X2)				0.58

Purdue University

Weed Code	ERICA
Crop Code	GLXMA
Part Rated	PLAQUA P
Rating Data Type	CONTRO
Rating Unit	%control
Rating Date	5/Oct/2004
Crop Stage	pre-harv
Crop Stage Scale	
Weed Stage	12-42"
Weed Density, Unit	1-2 M2
Assessed By	Reece & Vince
Trt-Eval Interval	103 DA-M
# Subsamples, Dec.	0
Replicate F	4.943
Replicate Prob(F)	0.0035
Treatment F	2.531
Treatment Prob(F)	0.0013

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.