

Purdue University

Fall Burndown Tank-Mix Treatments for 2004 soybean

Trial ID: 03F-SEPAC-SOY
 Location: SEPAC

Study Dir.:
 Investigator: Dr. Bill Johnson

GENERAL TRIAL INFORMATION

Investigator: Dr. Bill Johnson

TRIAL LOCATION

City: Butlerville
State/Prov.: IN
Postal Code: 47223
Country: USA
E-Longitude of LL Corner °: 274.480670 **N-Latitude of LL Corner °:** 39.035467
Altitude of LL Corner: 788.00 **Unit:** feet
Directions: Field S2

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.	CARPA	BITTERCRESS, SMALLFLOWERED	Cardamine parviflora L.
2.	RANAB	BUTTERCUP, SMALLFLOWER	RANUNCULUS ABORTIVUS L.
3.	SENGL	GROUNDSEL, CRESSLEAF	Senecio glabellus Poir.
4.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.) VILL./CYR.
5.	ERICA	HORSEWEED	ERIGERON CANADENSIS L.
6.	ERPVE	Whitlowgrass, spring	Draba verna L.
7.	CERVU	CHICKWEED, MOUSEEAR	CERASTIUM VULGATUM L.
8.	POAAN	Bluegrass, Annual	Poa annua L.
9.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.) MEDIK.
10.	VERAR	SPEEDWELL, CORN	VERONICA ARVENSIS L.
11.	LAMPU	DEADNETTLE, RED	LAMIUM PURPUREUM 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:

Blanket glyphosate application (0.75# a.e.) to entire study area on 6/24/2004.

SOIL DESCRIPTION

% OM: 1.4	Texture: Silt Loam
pH: 5.9	Soil Name: Clermont
CEC: 6.0	Fert. Level: P - 26 ppm, K - 47 ppm

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APPLICATION DESCRIPTION

	A	B	C
Application Date:	22/Nov/2003	2/Apr/2004	16/Apr/2004
Time of Day:	08:45 am	10:00 am	8:45 am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	FALBD	SPRBD1	SPRBD2
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	56 F	46 F	62 F
% Relative Humidity:	69	64	
Wind Velocity, Unit:	5 MPH	11 MPH	7 MPH
Soil Temp., Unit:	9 C	43 F	49 F
Soil Moisture:	wet	saturated	dry surf
% Cloud Cover:	90	95	

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GLXMA	GLXMA	GLXMA
Stage Scale:	Residue		
Height, Unit:	50 %	50 %	%
Crop 2 Code, Stage:	GLXMA	GLXMA	GLXMA
Stage Scale:	NA	NA	NA

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	CARPA	CARPA	CARPA
Stage Scale:	1-3" DIA	3"	0.5-8"
Density, Unit:	1-2 FT2	1-2 FT2	0-20 FT2
Weed 2 Code, Stage:	RANAB	RANAB	RANAB
Stage Scale:	1-3"	3-5 leaf	2-8"
Density, Unit:	4-15 FT2	4-16 FT2	0-6 FT2
Weed 3 Code, Stage:	SENGL	SENGL	SENGL
Stage Scale:	1-2"	1-3"	1-8"
Density, Unit:	0-4 FT2	1 FT2	0-3 FT2
Weed 4 Code, Stage:	STEME	STEME	STEME
Stage Scale:	1"		<1"
Density, Unit:	0-5 FT2	0 FT2	1 FT2
Weed 5 Code, Stage:	ERICA	ERICA	ERICA
Stage Scale:	<1" DIA		
Density, Unit:	0-2 FT2	0 FT2	0 FT2
Weed 6 Code, Stage:	ERPVE	ERPVE	ERPVE
Stage Scale:	<1"	1-3"	1-2"
Density, Unit:	0-3 FT2	1 FT2	1-4 FT2
Weed 7 Code, Stage:	CERVU	CERVU	CERVU
Stage Scale:		<1"	1-8"
Density, Unit:	0 FT2	2 FT2	<1 FT2
Weed 8 Code, Stage:	POAAN	POAAN	POAAN
Stage Scale:		1-3"	1-4"
Density, Unit:	0 FT2	1-12 FT2	0-4 FT2
Weed 9 Code, Stage:	CAPBP	CAPBP	CAPBP
Stage Scale:		<1"	
Density, Unit:	0 FT2	0-2 FT2	0 FT2
Weed10 Code, Stage:	VERAR	VERAR	VERAR
Stage Scale:		<1"	1-2"
Density, Unit:	0 FT2	0-7 FT2	1-3 FT2
Weed11 Code, Stage:	LAMPU	LAMPU	LAMPU
Stage Scale:			1"
Density, Unit:	0 FT2	0 FT2	0-2 FT2

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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

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Fall Burndown Tank-Mix Treatments for 2004 soybean

Trial ID: 03F-SEPAC-SOY
Location: SEPAC

Study Dir.:
Investigator: Dr. Bill Johnson

Weed Code				RANAB	SENGL	ERPVE	CARPA	POAAN	CERVU
Crop Code									
Part Rated									
Rating Data Type									
Rating Unit				%control	%control	%control	%control	%control	%control
Rating Date				16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004
Crop Stage				NA	NA	NA	NA	NA	NA
Crop Stage Scale									
Weed Stage				2-8"	1-8"	1-2"	0.5-8"	1-4"	1-8"
Weed Density, Unit				0-6 FT2	0-3 FT2	1-4 FT2	0-20FT2	0-4 FT2	<1 FT2
Assessed By				Reece	Reece	Reece	Reece	Reece	Reece
Trt-Eval Interval				14 DA-B					
# Subsamples, Dec.				0	0	0	0	0	0
Trt Treatment	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6
No. Name									
1 Untreated Check				0 c	0 b	0 c	0 b	0 d	0 d
2 Valor	0.064	lb ai/a	FALBD	98 a	100 a	100 a	98 a	83 ab	100 a
2,4-D Ester	0.5	lb ai/a	FALBD						
Express	0.0047	lb ai/a	FALBD						
NIS			FALBD						
AMS			FALBD						
3 Valor	0.064	lb ai/a	FALBD	100 a					
Basis	0.014	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
NIS			FALBD						
AMS			FALBD						
4 Valor	0.048	lb ai/a	FALBD	100 a	100 a	100 a	100 a	99 a	100 a
FirstRate	0.0157	lb ai/a	FALBD						
Express	0.0047	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
NIS			FALBD						
AMS			FALBD						
5 Valor	0.064	lb ai/a	FALBD	100 a					
Basis	0.014	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
Crop Oil Conc			FALBD						
AMS			FALBD						
6 Roundup Weathermax	0.77	lb ai/a	FALBD	100 a	100 a	100 a	86 a	100 a	100 a
AMS			FALBD						
Roundup Weathermax	0.77	lb ai/a	SPRBD						
AMS			SPRBD						
7 Valor	0.064	lb ai/a	FALBD	100 a	100 a	100 a	100 a	99 a	100 a
2,4-D Ester	0.5	lb ai/a	FALBD						
Express	0.00586	lb ai/a	FALBD						
NIS			FALBD						
AMS			FALBD						
Valor	0.064	lb ai/a	SPRBD						
Roundup Weathermax	0.387	lb ai/a	SPRBD						
AMS			SPRBD						
2,4-D Ester	0.5	lb ai/a	SPRBD						
NIS			SPRBD						
8 Valor	0.064	lb ai/a	FALBD	99 a	100 a	100 a	98 a	84 ab	100 a
2,4-D Ester	0.5	lb ai/a	FALBD						
Express	0.00586	lb ai/a	FALBD						
NIS			FALBD						
AMS			FALBD						

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Weed Code				RANAB	SENGL	ERPVE	CARPA	POAAN	CERVU
Crop Code									
Part Rated									
Rating Data Type									
Rating Unit				%control	%control	%control	%control	%control	%control
Rating Date				16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004
Crop Stage				NA	NA	NA	NA	NA	NA
Crop Stage Scale									
Weed Stage				2-8"	1-8"	1-2"	0.5-8"	1-4"	1-8"
Weed Density, Unit				0-6 FT2	0-3 FT2	1-4 FT2	0-20FT2	0-4 FT2	<1 FT2
Assessed By				Reece	Reece	Reece	Reece	Reece	Reece
Trt-Eval Interval				14 DA-B					
# Subsamples, Dec.				0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Grow Unit Stg	1	2	3	4	5	6
9	Valor	0.048 lb ai/a	FALBD	100 a	100 a	100 a	100 a	94 a	100 a
	FirstRate	0.0157 lb ai/a	FALBD						
	2,4-D Ester	0.5 lb ai/a	FALBD						
	Express	0.00586 lb ai/a	FALBD						
	NIS		FALBD						
	AMS		FALBD						
	Valor	0.048 lb ai/a	SPRBD						
	FirstRate	0.0157 lb ai/a	SPRBD						
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
10	Valor	0.048 lb ai/a	FALBD	100 a	100 a	100 a	100 a	96 a	100 a
	FirstRate	0.0157 lb ai/a	FALBD						
	2,4-D Ester	0.5 lb ai/a	FALBD						
	Express	0.00586 lb ai/a	FALBD						
	NIS		FALBD						
	AMS		FALBD						
11	Valor	0.08 lb ai/a	SPRBD	0 c	0 b	0 c	0 b	0 d	0 d
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
12	Valor	0.08 lb ai/a	SPRBD	0 c	0 b	0 c	0 b	0 d	0 d
	FirstRate	0.0262 lb ai/a	SPRBD						
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
13	Valor	0.064 lb ai/a	SPRBD	0 c	0 b	0 c	0 b	0 d	0 d
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
14	Touchdown Total	0.586 lb ai/a	FALBD	100 a	100 a	100 a	88 a	100 a	98 a
	2,4-D Ester	0.5 lb ai/a	FALBD						
	AMS		FALBD						
15	Gramoxone Max	0.487 lb ai/a	FALBD	100 a	100 a	100 a	85 a	100 a	100 a
	Sencor 75DF	0.25 lb ai/a	FALBD						
	Crop Oil Conc		FALBD						
	AMS		FALBD						
16	Scepter	0.092 lb ai/a	FALBD	100 a	100 a	100 a	100 a	95 a	100 a
	2,4-D Ester	0.5 lb ai/a	FALBD						
	AMS		FALBD						
	Crop Oil Conc		FALBD						
17	Scepter	0.092 lb ai/a	FALBD	100 a	100 a	100 a	100 a	85 ab	100 a
	Authority	0.187 lb ai/a	FALBD						
	2,4-D Ester	0.5 lb ai/a	FALBD						
	AMS		FALBD						
	Crop Oil Conc		FALBD						

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Weed Code				RANAB	SENGL	ERPVE	CARPA	POAAN	CERVU
Crop Code									
Part Rated									
Rating Data Type									
Rating Unit				%control	%control	%control	%control	%control	%control
Rating Date				16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004
Crop Stage				NA	NA	NA	NA	NA	NA
Crop Stage Scale									
Weed Stage				2-8"	1-8"	1-2"	0.5-8"	1-4"	1-8"
Weed Density, Unit				0-6 FT2	0-3 FT2	1-4 FT2	0-20FT2	0-4 FT2	<1 FT2
Assessed By				Reece	Reece	Reece	Reece	Reece	Reece
Trt-Eval Interval				14 DA-B					
# Subsamples, Dec.				0	0	0	0	0	0
Trt Treatment	Rate	Unit	Grow Stg						
No. Name				1	2	3	4	5	6
18 Backdraft (imazaquin)	0.84	lb ai/a	FALBD	100 a	100 a	100 a	99 a	100 a	100 a
2,4-D Ester	0.5	lb ai/a	FALBD						
AMS			FALBD						
Crop Oil Conc			FALBD						
19 Pursuit	0.0625	lb ai/a	SPRBD	65 b	95 a	90 a	98 a	56 c	74 c
2,4-D Ester	0.5	lb ai/a	SPRBD						
AMS			SPRBD						
Crop Oil Conc			SPRBD						
20 Pursuit	0.0625	lb ai/a	SPRBD	98 a	98 a	75 b	98 a	70 bc	90 ab
Authority	0.187	lb ai/a	SPRBD						
2,4-D Ester	0.5	lb ai/a	SPRBD						
AMS			SPRBD						
Crop Oil Conc			SPRBD						
21 Extreme	0.81	lb ai/a	SPRBD	94 a	98 a	96 a	98 a	95 a	88 b
2,4-D Ester	0.5	lb ai/a	SPRBD						
AMS			SPRBD						
Crop Oil Conc			SPRBD						
22 Classic	0.0312	lb ai/a	FALBD	100 a	100 a	100 a	100 a	98 a	100 a
Express	0.0094	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
Crop Oil Conc			FALBD						
AMS			FALBD						
23 Canopy XL				100 a					
Classic	0.0266	lb ai/a	FALBD						
Authority	0.131	lb ai/a	FALBD						
Express	0.0094	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
Crop Oil Conc			FALBD						
AMS			FALBD						
24 Classic	0.0156	lb ai/a	FALBD	100 a	100 a	100 a	100 a	99 a	100 a
Express	0.0047	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
Crop Oil Conc			FALBD						
AMS			FALBD						
25 Canopy XL				100 a					
Classic	0.0147	lb ai/a	FALBD						
Authority	0.073	lb ai/a	FALBD						
Express	0.0047	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
Crop Oil Conc			FALBD						
AMS			FALBD						
26 Classic	0.047	lb ai/a	FALBD	100 a					
Express	0.014	lb ai/a	FALBD						
2,4-D Ester	0.5	lb ai/a	FALBD						
Crop Oil Conc			FALBD						
AMS			FALBD						

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Weed Code		RANAB	SENGL	ERPVE	CARPA	POAAN	CERVU
Crop Code							
Part Rated							
Rating Data Type							
Rating Unit		%control	%control	%control	%control	%control	%control
Rating Date		16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004	16/Apr/2004
Crop Stage		NA	NA	NA	NA	NA	NA
Crop Stage Scale							
Weed Stage		2-8"	1-8"	1-2"	0.5-8"	1-4"	1-8"
Weed Density, Unit		0-6 FT2	0-3 FT2	1-4 FT2	0-20FT2	0-4 FT2	<1 FT2
Assessed By		Reece	Reece	Reece	Reece	Reece	Reece
Trt-Eval Interval		14 DA-B					
# Subsamples, Dec.		0	0	0	0	0	0
Trt Treatment	Rate	Rate	Grow				
No. Name		Unit	Stg				
				1	2	3	4
27 Untreated Check				0 c	0 b	0 c	0 b
LSD (P=.05)		7.2	3.2	5.9	8.8	15.6	6.7
Standard Deviation		5.1	2.3	4.2	6.2	11.0	4.7
CV		6.35	2.81	5.19	7.85	14.51	5.94
Grand Mean		79.72	81.11	80.05	79.44	75.94	79.58
Bartlett's X2		16.744	2.057	3.991	28.723	57.713	4.663
P(Bartlett's X2)		0.002*	0.358	0.136	0.001*	0.001*	0.198
Replicate F		1.794	2.849	0.443	2.620	1.104	1.172
Replicate Prob(F)		0.1552	0.0428	0.7231	0.0566	0.3526	0.3257
Treatment F		241.112	1195.521	356.558	155.127	48.281	273.728
Treatment Prob(F)		0.0001	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.

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Weed Code				RANAB	SENGL	CARPA	CERVU	ERICA	VERAR	
Crop Code										
Part Rated										
Rating Data Type										
Rating Unit				%control	%control	%control	%control	%control	%control	
Rating Date				28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	
Crop Stage				NA	NA	NA	NA	NA	NA	
Crop Stage Scale										
Weed Stage				3-8"	5", bolt	8", fl.	1-2"	2-5 lf	2-3"	
Weed Density, Unit				4 FT2	1 FT2	1 FT2	1 FT2	800 FT2	5 FT2	
Assessed By				Bill & Reece						
Trt-Eval Interval				12 DA-C						
# Subsamples, Dec.				0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg	7	8	9	10	11	12
1	Untreated Check				0 b	0 b	0 c	0 c	0 d	0 c
2	Valor	0.064	lb ai/a	FALBD	92 a	100 a	95 a	98 a	76 ab	95 a
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Express	0.0047	lb ai/a	FALBD						
	NIS			FALBD						
	AMS			FALBD						
3	Valor	0.064	lb ai/a	FALBD	100 a	100 a	93 a	100 a	90 ab	100 a
	Basis	0.014	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	NIS			FALBD						
	AMS			FALBD						
4	Valor	0.048	lb ai/a	FALBD	99 a	100 a	99 a	99 a	94 a	99 a
	FirstRate	0.0157	lb ai/a	FALBD						
	Express	0.0047	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	NIS			FALBD						
	AMS			FALBD						
5	Valor	0.064	lb ai/a	FALBD	99 a	100 a	100 a	100 a	95 a	100 a
	Basis	0.014	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Crop Oil Conc			FALBD						
	AMS			FALBD						
6	Roundup Weathermax	0.77	lb ai/a	FALBD	100 a	100 a	100 a	100 a	99 a	100 a
	AMS			FALBD						
	Roundup Weathermax	0.77	lb ai/a	SPRBD						
	AMS			SPRBD						
7	Valor	0.064	lb ai/a	FALBD	100 a	100 a				
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Express	0.00586	lb ai/a	FALBD						
	NIS			FALBD						
	AMS			FALBD						
	Valor	0.064	lb ai/a	SPRBD						
	Roundup Weathermax	0.387	lb ai/a	SPRBD						
	AMS			SPRBD						
	2,4-D Ester	0.5	lb ai/a	SPRBD						
	NIS			SPRBD						
8	Valor	0.064	lb ai/a	FALBD	95 a	100 a	99 a	100 a	86 ab	100 a
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Express	0.00586	lb ai/a	FALBD						
	NIS			FALBD						
	AMS			FALBD						

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Weed Code				RANAB	SENGL	CARPA	CERVU	ERICA	VERAR
Crop Code									
Part Rated									
Rating Data Type									
Rating Unit				%control	%control	%control	%control	%control	%control
Rating Date				28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004
Crop Stage				NA	NA	NA	NA	NA	NA
Crop Stage Scale									
Weed Stage				3-8"	5", bolt	8", fl.	1-2"	2-5 lf	2-3"
Weed Density, Unit				4 FT2	1 FT2	1 FT2	1 FT2	800 FT2	5 FT2
Assessed By				Bill & Reece					
Trt-Eval Interval				12 DA-C					
# Subsamples, Dec.				0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Grow Stg	7	8	9	10	11	12
9	Valor	0.048 lb ai/a	FALBD	100 a					
	FirstRate	0.0157 lb ai/a	FALBD						
	2,4-D Ester	0.5 lb ai/a	FALBD						
	Express	0.00586 lb ai/a	FALBD						
	NIS		FALBD						
	AMS		FALBD						
	Valor	0.048 lb ai/a	SPRBD						
	FirstRate	0.0157 lb ai/a	SPRBD						
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
10	Valor	0.048 lb ai/a	FALBD	97 a	100 a	100 a	100 a	98 a	100 a
	FirstRate	0.0157 lb ai/a	FALBD						
	2,4-D Ester	0.5 lb ai/a	FALBD						
	Express	0.00586 lb ai/a	FALBD						
	NIS		FALBD						
	AMS		FALBD						
11	Valor	0.08 lb ai/a	SPRBD	100 a	100 a	100 a	90 ab	100 a	98 a
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
12	Valor	0.08 lb ai/a	SPRBD	100 a	100 a	100 a	89 ab	100 a	100 a
	FirstRate	0.0262 lb ai/a	SPRBD						
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
13	Valor	0.064 lb ai/a	SPRBD	98 a	98 a	100 a	94 ab	100 a	100 a
	Roundup Weathermax	0.387 lb ai/a	SPRBD						
	AMS		SPRBD						
	2,4-D Ester	0.5 lb ai/a	SPRBD						
	NIS		SPRBD						
14	Touchdown Total	0.586 lb ai/a	FALBD	94 a	100 a	3 c	89 ab	16 cd	83 b
	2,4-D Ester	0.5 lb ai/a	FALBD						
	AMS		FALBD						
15	Gramoxone Max	0.487 lb ai/a	FALBD	94 a	100 a	40 b	97 a	31 c	93 ab
	Sencor 75DF	0.25 lb ai/a	FALBD						
	Crop Oil Conc		FALBD						
	AMS		FALBD						
16	Scepter	0.092 lb ai/a	FALBD	100 a	100 a	99 a	98 a	66 ab	99 a
	2,4-D Ester	0.5 lb ai/a	FALBD						
	AMS		FALBD						
	Crop Oil Conc		FALBD						
17	Scepter	0.092 lb ai/a	FALBD	100 a	100 a	96 a	100 a	64 b	100 a
	Authority	0.187 lb ai/a	FALBD						
	2,4-D Ester	0.5 lb ai/a	FALBD						
	AMS		FALBD						
	Crop Oil Conc		FALBD						

Purdue University

Weed Code				RANAB	SENGL	CARPA	CERVU	ERICA	VERAR	
Crop Code										
Part Rated										
Rating Data Type										
Rating Unit				%control	%control	%control	%control	%control	%control	
Rating Date				28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	
Crop Stage				NA	NA	NA	NA	NA	NA	
Crop Stage Scale										
Weed Stage				3-8"	5", bolt	8", fl.	1-2"	2-5 lf	2-3"	
Weed Density, Unit				4 FT2	1 FT2	1 FT2	1 FT2	800 FT2	5 FT2	
Assessed By				Bill & Reece						
Trt-Eval Interval				12 DA-C						
# Subsamples, Dec.				0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Grow Stg	7	8	9	10	11	12
18	Backdraft (imazaquin)	0.84	lb ai/a	FALBD	100 a	100 a	100 a	100 a	93 a	100 a
	2,4-D Ester	0.5	lb ai/a	FALBD						
	AMS			FALBD						
	Crop Oil Conc			FALBD						
19	Pursuit	0.0625	lb ai/a	SPRBD	100 a	100 a	100 a	95 ab	100 a	90 ab
	2,4-D Ester	0.5	lb ai/a	SPRBD						
	AMS			SPRBD						
	Crop Oil Conc			SPRBD						
20	Pursuit	0.0625	lb ai/a	SPRBD	100 a	100 a	100 a	80 b	100 a	98 a
	Authority	0.187	lb ai/a	SPRBD						
	2,4-D Ester	0.5	lb ai/a	SPRBD						
	AMS			SPRBD						
	Crop Oil Conc			SPRBD						
21	Extreme	0.81	lb ai/a	SPRBD	100 a	100 a				
	2,4-D Ester	0.5	lb ai/a	SPRBD						
	AMS			SPRBD						
	Crop Oil Conc			SPRBD						
22	Classic	0.0312	lb ai/a	FALBD	100 a	100 a	100 a	100 a	96 a	100 a
	Express	0.0094	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Crop Oil Conc			FALBD						
	AMS			FALBD						
23	Canopy XL				100 a	100 a				
	Classic	0.0266	lb ai/a	FALBD						
	Authority	0.131	lb ai/a	FALBD						
	Express	0.0094	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Crop Oil Conc			FALBD						
	AMS			FALBD						
24	Classic	0.0156	lb ai/a	FALBD	100 a	100 a	100 a	100 a	96 a	100 a
	Express	0.0047	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Crop Oil Conc			FALBD						
	AMS			FALBD						
25	Canopy XL				100 a	100 a				
	Classic	0.0147	lb ai/a	FALBD						
	Authority	0.073	lb ai/a	FALBD						
	Express	0.0047	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Crop Oil Conc			FALBD						
	AMS			FALBD						
26	Classic	0.047	lb ai/a	FALBD	100 a	100 a	100 a	100 a	99 a	100 a
	Express	0.014	lb ai/a	FALBD						
	2,4-D Ester	0.5	lb ai/a	FALBD						
	Crop Oil Conc			FALBD						
	AMS			FALBD						

Purdue University

Weed Code		RANAB	SENGL	CARPA	CERVU	ERICA	VERAR		
Crop Code									
Part Rated									
Rating Data Type									
Rating Unit		%control	%control	%control	%control	%control	%control		
Rating Date		28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004	28/Apr/2004		
Crop Stage		NA	NA	NA	NA	NA	NA		
Crop Stage Scale									
Weed Stage		3-8"	5", bolt	8", fl.	1-2"	2-5 lf	2-3"		
Weed Density, Unit		4 FT2	1 FT2	1 FT2	1 FT2	800 FT2	5 FT2		
Assessed By		Bill & Reece							
Trt-Eval Interval		12 DA-C							
# Subsamples, Dec.		0	0	0	0	0	0		
Trt Treatment	Rate	Rate	Grow						
No. Name		Unit	Stg	7	8	9	10	11	12
27 Untreated Check				0 b	0 b	0 c	0 c	0 d	0 c
LSD (P=.05)		5.1	1.4	8.5	10.2	19.7	7.8		
Standard Deviation		3.6	1.0	6.0	7.2	13.9	5.5		
CV		3.96	1.04	7.02	8.06	17.08	6.06		
Grand Mean		91.34	92.5	86.01	89.92	81.46	90.86		
Bartlett's X2		45.516	0.0	41.454	23.594	49.589	21.653		
P(Bartlett's X2)		0.001*	.	0.001*	0.005*	0.001*	0.003*		
Replicate F		2.428	1.000	1.428	4.175	1.280	0.914		
Replicate Prob(F)		0.0716	0.3975	0.2414	0.0085	0.2872	0.4380		
Treatment F		213.265	3071.769	117.667	52.992	20.589	92.420		
Treatment Prob(F)		0.0001	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.

Purdue University

Weed Code		POAAN	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA		
Crop Code									
Part Rated							biomas		
Rating Data Type							control		
Rating Unit		%control	%control	%control	%control	%control	%control		
Rating Date		28/Apr/2004	3/Jun/2004	21/Jun/2004	8/Jul/2004	5/Oct/2004			
Crop Stage		NA	NA	V5-V6,R1	1" pods				
Crop Stage Scale				10-12"	15-20"				
Weed Stage		4", seed	1-4"	1-12"	1-24"		6-48"		
Weed Density, Unit		8 FT2	75 FT2	5-20FT2	5-10FT2		5-20M2		
Assessed By		Bill & Reece	Bill & Vince	Earl & Reece	Earl & Vince		Reece & Vince		
Trt-Eval Interval		12 DA-C	48 DA-C	66 DA-C	14 DA-M		103 DA-M		
# Subsamples, Dec.		0	0	0	0		0		
Trt No.	Treatment Name	Rate	Unit	Grow Stg	13	14	15	16	17
1	Untreated Check				0 e	0 e	0 i	0 f	76 a
2	Valor	0.064	lb ai/a	FALBD	69 a-d	5 e	4 hi	34 b-f	59 a
	2,4-D Ester	0.5	lb ai/a	FALBD					
	Express	0.0047	lb ai/a	FALBD					
	NIS			FALBD					
	AMS			FALBD					
3	Valor	0.064	lb ai/a	FALBD	99 a	80 ab	53 a-g	63 a-e	87 a
	Basis	0.014	lb ai/a	FALBD					
	2,4-D Ester	0.5	lb ai/a	FALBD					
	NIS			FALBD					
	AMS			FALBD					
4	Valor	0.048	lb ai/a	FALBD	92 ab	66 abc	38 d-i	45 a-f	49 a
	FirstRate	0.0157	lb ai/a	FALBD					
	Express	0.0047	lb ai/a	FALBD					
	2,4-D Ester	0.5	lb ai/a	FALBD					
	NIS			FALBD					
	AMS			FALBD					
5	Valor	0.064	lb ai/a	FALBD	100 a	69 abc	36 d-i	41 a-f	79 a
	Basis	0.014	lb ai/a	FALBD					
	2,4-D Ester	0.5	lb ai/a	FALBD					
	Crop Oil Conc			FALBD					
	AMS			FALBD					
6	Roundup Weathermax	0.77	lb ai/a	FALBD	100 a	81 ab	48 b-h	54 a-f	78 a
	AMS			FALBD					
	Roundup Weathermax	0.77	lb ai/a	SPRBD					
	AMS			SPRBD					
7	Valor	0.064	lb ai/a	FALBD	100 a	96 a	78 a-d	75 a-d	76 a
	2,4-D Ester	0.5	lb ai/a	FALBD					
	Express	0.00586	lb ai/a	FALBD					
	NIS			FALBD					
	AMS			FALBD					
	Valor	0.064	lb ai/a	SPRBD					
	Roundup Weathermax	0.387	lb ai/a	SPRBD					
	AMS			SPRBD					
	2,4-D Ester	0.5	lb ai/a	SPRBD					
	NIS			SPRBD					
8	Valor	0.064	lb ai/a	FALBD	59 cd	36 cde	21 ghi	19 def	25 a
	2,4-D Ester	0.5	lb ai/a	FALBD					
	Express	0.00586	lb ai/a	FALBD					
	NIS			FALBD					
	AMS			FALBD					

Purdue University

Weed Code				POAAN	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA	ERICA
Crop Code								
Part Rated								biomas
Rating Data Type								control
Rating Unit				%control	%control	%control	%control	%control
Rating Date				28/Apr/2004	3/Jun/2004	21/Jun/2004	8/Jul/2004	5/Oct/2004
Crop Stage				NA	NA	V5-V6,R1	1" pods	
Crop Stage Scale						10-12"	15-20"	
Weed Stage				4", seed	1-4"	1-12"	1-24"	6-48"
Weed Density, Unit				8 FT2	75 FT2	5-20FT2	5-10FT2	5-20M2
Assessed By				Bill & Reece	Bill & Vince	Earl & Reece	Earl & Vince	Reece & Vince
Trt-Eval Interval				12 DA-C	48 DA-C	66 DA-C	14 DA-M	103 DA-M
# Subsamples, Dec.				0	0	0	0	0
Trt No.	Treatment Name	Rate	Grow Unit Stg	13	14	15	16	17
9	Valor	0.048 lb ai/a	FALBD	99 a	99 a	93 ab	91 ab	86 a
	FirstRate	0.0157 lb ai/a	FALBD					
	2,4-D Ester	0.5 lb ai/a	FALBD					
	Express	0.00586 lb ai/a	FALBD					
	NIS		FALBD					
	AMS		FALBD					
	Valor	0.048 lb ai/a	SPRBD					
	FirstRate	0.0157 lb ai/a	SPRBD					
	Roundup Weathermax	0.387 lb ai/a	SPRBD					
	AMS		SPRBD					
	2,4-D Ester	0.5 lb ai/a	SPRBD					
	NIS		SPRBD					
10	Valor	0.048 lb ai/a	FALBD	85 abc	68 abc	31 e-i	23 def	76 a
	FirstRate	0.0157 lb ai/a	FALBD					
	2,4-D Ester	0.5 lb ai/a	FALBD					
	Express	0.00586 lb ai/a	FALBD					
	NIS		FALBD					
	AMS		FALBD					
11	Valor	0.08 lb ai/a	SPRBD	100 a	95 a	80 a-d	73 a-d	76 a
	Roundup Weathermax	0.387 lb ai/a	SPRBD					
	AMS		SPRBD					
	2,4-D Ester	0.5 lb ai/a	SPRBD					
	NIS		SPRBD					
12	Valor	0.08 lb ai/a	SPRBD	98 a	100 a	95 a	94 a	94 a
	FirstRate	0.0262 lb ai/a	SPRBD					
	Roundup Weathermax	0.387 lb ai/a	SPRBD					
	AMS		SPRBD					
	2,4-D Ester	0.5 lb ai/a	SPRBD					
	NIS		SPRBD					
13	Valor	0.064 lb ai/a	SPRBD	98 a	92 ab	71 a-f	60 a-f	78 a
	Roundup Weathermax	0.387 lb ai/a	SPRBD					
	AMS		SPRBD					
	2,4-D Ester	0.5 lb ai/a	SPRBD					
	NIS		SPRBD					
14	Touchdown Total	0.586 lb ai/a	FALBD	97 a	0 e	0 i	0 f	49 a
	2,4-D Ester	0.5 lb ai/a	FALBD					
	AMS		FALBD					
15	Gramoxone Max	0.487 lb ai/a	FALBD	84 abc	15 e	0 i	10 ef	56 a
	Sencor 75DF	0.25 lb ai/a	FALBD					
	Crop Oil Conc		FALBD					
	AMS		FALBD					
16	Scepter	0.092 lb ai/a	FALBD	85 abc	20 e	7 hi	20 def	63 a
	2,4-D Ester	0.5 lb ai/a	FALBD					
	AMS		FALBD					
	Crop Oil Conc		FALBD					
17	Scepter	0.092 lb ai/a	FALBD	64 bcd	28 de	9 hi	23 def	82 a
	Authority	0.187 lb ai/a	FALBD					
	2,4-D Ester	0.5 lb ai/a	FALBD					
	AMS		FALBD					
	Crop Oil Conc		FALBD					

Purdue University

Weed Code		POAAN	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA			
Crop Code									
Part Rated						biomas			
Rating Data Type						control			
Rating Unit		%control	%control	%control	%control	%control			
Rating Date		28/Apr/2004	3/Jun/2004	21/Jun/2004	8/Jul/2004	5/Oct/2004			
Crop Stage		NA	NA	V5-V6,R1	1" pods				
Crop Stage Scale				10-12"	15-20"				
Weed Stage		4", seed	1-4"	1-12"	1-24"	6-48"			
Weed Density, Unit		8 FT2	75 FT2	5-20FT2	5-10FT2	5-20M2			
Assessed By		Bill & Reece	Bill & Vince	Earl & Reece	Earl & Vince	Reece & Vince			
Trt-Eval Interval		12 DA-C	48 DA-C	66 DA-C	14 DA-M	103 DA-M			
# Subsamples, Dec.		0	0	0	0	0			
Trt No.	Treatment Name	Rate	Unit	Grow Stg	13	14	15	16	17
18	Backdraft (imazaquin) 2,4-D Ester AMS Crop Oil Conc	0.84 0.5	lb ai/a lb ai/a	FALBD FALBD FALBD FALBD	100 a	53 bcd	25 f-i	30 c-f	64 a
19	Pursuit 2,4-D Ester AMS Crop Oil Conc	0.0625 0.5	lb ai/a lb ai/a	SPRBD SPRBD SPRBD SPRBD	49 d	91 ab	54 a-g	51 a-f	53 a
20	Pursuit Authority 2,4-D Ester AMS Crop Oil Conc	0.0625 0.187 0.5	lb ai/a lb ai/a lb ai/a	SPRBD SPRBD SPRBD SPRBD SPRBD	75 abc	94 a	57 a-g	58 a-f	73 a
21	Extreme 2,4-D Ester AMS Crop Oil Conc	0.81 0.5	lb ai/a lb ai/a	SPRBD SPRBD SPRBD SPRBD	101 a	83 ab	41 c-i	29 c-f	84 a
22	Classic Express 2,4-D Ester Crop Oil Conc AMS	0.0312 0.0094 0.5	lb ai/a lb ai/a lb ai/a	FALBD FALBD FALBD FALBD FALBD	85 abc	99 a	75 a-e	72 a-d	78 a
23	Canopy XL Classic Authority Express 2,4-D Ester Crop Oil Conc AMS	0.0266 0.131 0.0094 0.5	lb ai/a lb ai/a lb ai/a lb ai/a	FALBD FALBD FALBD FALBD FALBD FALBD	99 a	98 a	78 a-d	76 a-d	86 a
24	Classic Express 2,4-D Ester Crop Oil Conc AMS	0.0156 0.0047 0.5	lb ai/a lb ai/a lb ai/a	FALBD FALBD FALBD FALBD FALBD	89 ab	92 ab	54 a-g	49 a-f	68 a
25	Canopy XL Classic Authority Express 2,4-D Ester Crop Oil Conc AMS	0.0147 0.073 0.0047 0.5	lb ai/a lb ai/a lb ai/a lb ai/a	FALBD FALBD FALBD FALBD FALBD FALBD	96 a	91 ab	57 a-g	45 a-f	75 a
26	Classic Express 2,4-D Ester Crop Oil Conc AMS	0.047 0.014 0.5	lb ai/a lb ai/a lb ai/a	FALBD FALBD FALBD FALBD FALBD	96 a	99 a	87 abc	84 abc	93 a

Purdue University

Weed Code		POAAN	ERICA GLXMA	ERICA GLXMA	ERICA GLXMA	ERICA		
Crop Code								
Part Rated						biomas		
Rating Data Type						control		
Rating Unit		%control	%control	%control	%control	%control		
Rating Date		28/Apr/2004	3/Jun/2004	21/Jun/2004	8/Jul/2004	5/Oct/2004		
Crop Stage		NA	NA	V5-V6,R1	1" pods			
Crop Stage Scale				10-12"	15-20"			
Weed Stage		4", seed	1-4"	1-12"	1-24"	6-48"		
Weed Density, Unit		8 FT2	75 FT2	5-20FT2	5-10FT2	5-20M2		
Assessed By		Bill & Reece	Bill & Vince	Earl & Reece	Earl & Vince	Reece & Vince		
Trt-Eval Interval		12 DA-C	48 DA-C	66 DA-C	14 DA-M	103 DA-M		
# Subsamples, Dec.		0	0	0	0	0		
Trt Treatment								
No. Name	Rate	Unit	Grow Stg					
27 Untreated Check				13	14	15	16	17
				0 e	0 e	0 i	0 f	76 a
LSD (P=.05)		18.2	23.6	27.2	33.4	36.3		
Standard Deviation		12.9	16.7	19.2	23.6	25.7		
CV		15.67	25.77	43.61	52.43	35.85		
Grand Mean		82.01	64.68	44.03	45.01	71.64		
Bartlett's X2		98.965	114.343	34.206	26.432	30.65		
P(Bartlett's X2)		0.001*	0.001*	0.047*	0.281	0.242		
Replicate F		4.734	2.059	0.747	5.329	1.372		
Replicate Prob(F)		0.0044	0.1125	0.5272	0.0022	0.2576		
Treatment F		18.364	19.461	10.757	5.637	1.450		
Treatment Prob(F)		0.0001	0.0001	0.0001	0.0001	0.1072		

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.