

Fall Applications of Canopy EX and Rimsulfuron.

Project Code: 05-1-MME40 Location: Belleville Research Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final Updated: 11-03-05**Objective:**

Determine the efficacy and safety of fall applications of Canopy EX and rimsulfuron for spring planted RR/STS soybean.

Weed Code	Common Name	Scientific Name
1.	STEME chickweed, common	Stellaria media (L.) Vill.
2.	RANAB buttercup, smallflower	Ranunculus abortivus L.
3.	LAMAM henbit	Lamium amplexicaule L.
4.	SENGL groundsel, cressleaf	Senecio glabellus Poir.
5.	ALOCA foxtail, Carolina	Alopecurus carolinianus Walt.
6.	POAAN bluegrass, annual	Poa annua L.
7.	AMATA waterhemp, common	Amaranthus rudis Sauer
8.	CHEAL lambsquarters, common	Chenopodium album L.
9.	ERICA horseweed	Conyza canadensis (L.) Crong.
10.	GGGAN grasses, annual	
11.	SETFA foxtail, giant	Setaria faberi Herrm.
12.	PANDI panicum, fall	Panicum dichotomiflorum Michx.

Crop 1:	GLXMA soybean	Variety:	P94M40 RR/STS
Planting Method:	Seeded	Planting Date:	5-11-05
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	31 FT	Reps:	3
Tillage Type:	No-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2004				

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 100 LB/A

Soil Name:	Weir	% OM:	1.6	pH:	6.2	CEC:	8
Texture:	Silt loam	Fert. Level:	P1: 83 LB/A, K: 396 LB/A				

APPLICATION DESCRIPTION

Application Date:	11-17-04
Time of Day:	9:00
Application Method:	Spray
Application Timing:	FALL
Applic. Placement:	BROFOL
Air Temp., Unit:	64 F
% Relative Humidity:	86
Wind Velocity, Unit:	0 MPH
Soil Moisture:	ABONOR

CROP STAGE AT EACH APPLICATION

Crop 1 Code, Stage:	GLXMA NA
Height, Unit:	NA NA

WEED STAGE AT EACH APPLICATION

Weed 1 Code:	STEME
Stage (leaves):	10+
Height (inches):	1-2
Density:	Medium
Weed 2 Code:	RANAB
Stage (leaves):	4-6
Height (inches):	1-2
Density:	Medium
Weed 3 Code:	LAMAM
Stage (leaves):	10+
Height (inches):	1-2
Density:	Medium
Weed 4 Code:	SENGL
Stage (leaves):	10+
Height (inches):	1-3
Density:	Medium

APPLICATION EQUIPMENT

Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	Flat fan
Nozzle Size:	8002
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	20 GPA

NOTES:

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Weed Code		STEME	STEME	RANAB	RANAB	LAMAM	LAMAM
Crop Code		GLXMA					
Rating Data Type		Yield	Control	Control	Control	Control	Control
Rating Unit		bu/A	Percent	Percent	Percent	Percent	Percent
Rating Date		10-06-05	04-01-05	05-01-05	04-01-05	04-01-05	05-01-05
Trt-Eval Interval			135 DA-A	165 DA-A	135 DA-A	165 DA-A	165 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Yield	STEME Control	STEME Control	RANAB Control	RANAB Control	LAMAM Control	LAMAM Control
1	CANOPY EX	29.5	WG			2.2	oz/a	FALL	A	53	99	99	99	99	99	99
1	->CLASSIC	25	WG	0.0312	lb ai/a			FALL	A							
1	->EXPRESS	75	WG	0.0094	lb ai/a			FALL	A							
1	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
1	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
2	CANOPY EX	29.5	WG			1.65	oz/a	FALL	A	52	99	99	99	99	99	99
2	->CLASSIC	25	WG	0.0234	lb ai/a			FALL	A							
2	->EXPRESS	75	WG	0.007	lb ai/a			FALL	A							
2	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
2	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
3	CANOPY EX	29.5	WG			1.1	oz/a	FALL	A	51	99	99	99	99	99	99
3	->CLASSIC	25	WG	0.0156	lb ai/a			FALL	A							
3	->EXPRESS	75	WG	0.0047	lb ai/a			FALL	A							
3	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
3	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
4	BASIS	75	WG	0.0155	lb ai/a	0.33	oz/a	FALL	A	50	98	98	99	99	99	99
4	EXPRESS	75	WG	0.00586	lb ai/a	0.125	oz/a	FALL	A							
4	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
5	MATRIX	25	WG	0.0156	lb ai/a	1	oz/a	FALL	A	51	98	98	99	99	99	99
5	HARMONY GT	75	WG	0.0155	lb ai/a	0.33	oz/a	FALL	A							
5	EXPRESS	75	WG	0.0078	lb ai/a	0.167	oz/a	FALL	A							
5	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
6	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	FALL	A	53	99	99	99	99	99	99
6	HARMONY GT	75	WG	0.0623	lb ai/a	1.33	oz/a	FALL	A							
6	EXPRESS	75	WG	0.0314	lb ai/a	0.67	oz/a	FALL	A							
6	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
7	CANOPY XL	56.3	WG			3.5	oz/a	FALL	A	54	99	99	99	99	99	99
7	->CLASSIC	25	WG	0.0205	lb ai/a			FALL	A							
7	->AUTHORITY	75	WG	0.1025	lb ai/a			FALL	A							
7	EXPRESS	75	WG	0.007	lb ai/a	0.15	oz/a	FALL	A							
7	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
7	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	FALL	A	45	99	99	99	99	99	99
8	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	FALL	A							
9	BACKDRAFT	1.5	SL	0.94	lb ai/a	5	pt/a	FALL	A	50	99	99	99	99	99	99
9	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
9	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FALL	A							
9	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	FALL	A							
10	NONTREATED									53	0	0	0	0	0	0
LSD (P=.05)										8.6	1.6	1.6	0.0	0.0	0.0	0.0
Replicate F										7.842	2.928	2.928	0.000	0.000	0.000	0.000
Replicate Prob(F)										0.0036	0.0793	0.0793	1.0000	1.0000	1.0000	1.0000
Treatment F										0.684	3167.807	3167.807	0.000	0.000	0.000	0.000
Treatment Prob(F)										0.7143	0.0001	0.0001	1.0000	1.0000	1.0000	1.0000

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Weed Code	SENGL	SENGL	ALOCA	ALOCA	POAAN	POAAN	AMATA									
Crop Code	Control	Control	Control	Control	Control	Control	Control									
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent									
Rating Unit	04-01-05	05-01-05	04-01-05	05-01-05	04-01-05	05-01-05	06-01-05									
Rating Date	135 DA-A	165 DA-A	135 DA-A	165 DA-A	135 DA-A	165 DA-A	196 DA-A									
Trt-Eval Interval																
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code							
1	CANOPY EX	29.5	WG			2.2	oz/a	FALL	A	99	99	99	99	87	87	0
1	->CLASSIC	25	WG	0.0312	lb ai/a			FALL	A							
1	->EXPRESS	75	WG	0.0094	lb ai/a			FALL	A							
1	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
1	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
2	CANOPY EX	29.5	WG			1.65	oz/a	FALL	A	99	99	99	99	91	91	10
2	->CLASSIC	25	WG	0.0234	lb ai/a			FALL	A							
2	->EXPRESS	75	WG	0.007	lb ai/a			FALL	A							
2	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
2	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
3	CANOPY EX	29.5	WG			1.1	oz/a	FALL	A	99	99	99	99	93	93	0
3	->CLASSIC	25	WG	0.0156	lb ai/a			FALL	A							
3	->EXPRESS	75	WG	0.0047	lb ai/a			FALL	A							
3	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
3	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
4	BASIS	75	WG	0.0155	lb ai/a	0.33	oz/a	FALL	A	99	99	99	99	99	99	33
4	EXPRESS	75	WG	0.00586	lb ai/a	0.125	oz/a	FALL	A							
4	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
5	MATRIX	25	WG	0.0156	lb ai/a	1	oz/a	FALL	A	99	99	99	99	99	99	20
5	HARMONY GT	75	WG	0.0155	lb ai/a	0.33	oz/a	FALL	A							
5	EXPRESS	75	WG	0.0078	lb ai/a	0.167	oz/a	FALL	A							
5	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
6	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	FALL	A	99	99	99	99	99	99	60
6	HARMONY GT	75	WG	0.0623	lb ai/a	1.33	oz/a	FALL	A							
6	EXPRESS	75	WG	0.0314	lb ai/a	0.67	oz/a	FALL	A							
6	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
6	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
7	CANOPY XL	56.3	WG			3.5	oz/a	FALL	A	99	99	99	99	94	94	63
7	->CLASSIC	25	WG	0.0205	lb ai/a			FALL	A							
7	->AUTHORITY	75	WG	0.1025	lb ai/a			FALL	A							
7	EXPRESS	75	WG	0.007	lb ai/a	0.15	oz/a	FALL	A							
7	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
7	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL	A							
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	FALL	A	99	99	99	99	99	99	0
8	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	FALL	A							
9	BACKDRAFT	1.5	SL	0.94	lb ai/a	5	pt/a	FALL	A	99	99	99	99	99	99	0
9	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL	A							
9	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FALL	A							
9	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	FALL	A							
10	NONTREATED									0	0	0	0	0	0	0
LSD (P=.05)										0.0	0.0	0.0	0.0	7.1	7.1	23.7
Replicate F										0.000	0.000	0.000	0.000	1.163	1.163	0.749
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	0.3351	0.3351	0.4872
Treatment F										0.000	0.000	0.000	0.000	161.452	161.452	9.988
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001

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						CHEAL	ERICA	GGGAN	GLXMA
						Control	Control	Control	Injury
						Percent	Percent	Percent	Percent
						06-01-05	06-01-05	06-01-05	06-02-05
						196 DA-A	196 DA-A	196 DA-A	21 DAP
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code
1	CANOPY EX	29.5	WG			2.2	oz/a	FALL A	
	->CLASSIC	25	WG	0.0312	lb ai/a			FALL A	99
	->EXPRESS	75	WG	0.0094	lb ai/a			FALL A	98
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	80
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	0
2	CANOPY EX	29.5	WG			1.65	oz/a	FALL A	
	->CLASSIC	25	WG	0.0234	lb ai/a			FALL A	99
	->EXPRESS	75	WG	0.007	lb ai/a			FALL A	99
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	69
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	0
3	CANOPY EX	29.5	WG			1.1	oz/a	FALL A	
	->CLASSIC	25	WG	0.0156	lb ai/a			FALL A	99
	->EXPRESS	75	WG	0.0047	lb ai/a			FALL A	98
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	72
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	0
4	BASIS	75	WG	0.0155	lb ai/a	0.33	oz/a	FALL A	
	EXPRESS	75	WG	0.00586	lb ai/a	0.125	oz/a	FALL A	68
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	98
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	30
5	MATRIX	25	WG	0.0156	lb ai/a	1	oz/a	FALL A	
	HARMONY GT	75	WG	0.0155	lb ai/a	0.33	oz/a	FALL A	53
	EXPRESS	75	WG	0.0078	lb ai/a	0.167	oz/a	FALL A	98
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	47
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	0
6	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	FALL A	
	HARMONY GT	75	WG	0.0623	lb ai/a	1.33	oz/a	FALL A	97
	EXPRESS	75	WG	0.0314	lb ai/a	0.67	oz/a	FALL A	99
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	93
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	0
7	CANOPY XL	56.3	WG			3.5	oz/a	FALL A	
	->CLASSIC	25	WG	0.0205	lb ai/a			FALL A	98
	->AUTHORITY	75	WG	0.1025	lb ai/a			FALL A	99
	EXPRESS	75	WG	0.007	lb ai/a	0.15	oz/a	FALL A	88
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	0
	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	FALL A	0
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	FALL A	
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	0
	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	FALL A	0
9	BACKDRAFT	1.5	SL	0.94	lb ai/a	5	pt/a	FALL A	
	2,4-D LV4	3.8	EC	0.5	lb ai/a	16.8	fl oz/a	FALL A	0
	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FALL A	98
	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	FALL A	0
10	NONTREATED								0
LSD (P=.05)						5.7	2.5	23.2	0.0
Replicate F						0.039	3.162	3.325	0.000
Replicate Prob(F)						0.9620	0.0665	0.0590	1.0000
Treatment F						544.322	2344.568	23.590	0.000
Treatment Prob(F)						0.0001	0.0001	0.0001	1.0000

Trial Comments

1. Protocol: DuPont.
2. Ratings: WC April 1, May 1 and June 1 (if possible), CI 21, 42, 56 and 84 DAP.
3. Yield.
4. Blanket application of Roundup WeatherMax over the entire study (to maintain weed-free) after final weed control rating.
5. DA-A = Days after FALL application. DAP = Days after planting.
6. GGGAN = Annual grasses including SETFA and PANDI.
7. No crop injury at any time.
8. Harvested 10-6-05, (2) 30 inch rows by 28 ft.