

Rimsulfuron in Grapes.

Project Code: 07-Grapes Location: Ava, IL
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Ava IL 62907 USA
Trial Status: Final Updated: 1-23-08

Objective:

Evaluate efficacy and crop tolerance of rimsulfuron alone and in combination with simazine, diuron, and terbacil in grapes.

Weed Code	Common Name	Scientific Name
1.	SORHA johnsongrass	Sorghum halepense (L.) Pers.
2.	DIGSA crabgrass, large	Digitaria sanguinalis (L.) Scop.

Crop 1: VITVI grape Variety: See comments
Planting Method: Established Planting Date: 3rd leaf

Plot Width, Unit: 3 FT Plot Length, Unit: 27 FT Reps: 3
Tillage Type: No-Till Study Design: Randomized complete block
Previous Crop, Year: NA , 2006

APPLICATION DESCRIPTION

A

Application Date: 4-20-07
 Time of Day: 8:00
 Application Method: Spray
 Application Timing: SPRING
 Applic. Placement: BROFOL
 Air Temp., Unit: 53 F
 % Relative Humidity: 74
 Wind Velocity, Unit: 2 MPH
 Dew Presence (Y/N): Y
 Soil Temp., Unit: 53 F
 Soil Moisture: NORMAL
 % Cloud Cover: 0

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: VITVI Bud
 Height, Unit: 1 IN

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: SORHA
 Stage(leaves): 1-3
 Height(inches): 1-4
 Density: Medium

APPLICATION EQUIPMENT

A

Appl. Equipment: CO2 sprayer
 Operating Pressure: 40 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002E
 Boom Length, Unit: 3 FT
 Spray Volume, Unit: 20 GPA

NOTES:

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Weed Code										SORHA	SORHA	SORHA
Crop Code										VITVI	VITVI	VITVI
Rating Data Type										Injury	Injury	Injury
Rating Unit										Percent	Percent	Percent
Rating Date										5-20-07	6-19-07	7-19-07
Trt-Eval Interval										30 DA-A	60 DA-A	90 DA-A
										Control	Control	Control
										Percent	Percent	Percent
										5-20-07	6-19-07	7-19-07
										30 DA-A	60 DA-A	90 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	VITVI Injury Percent	VITVI Injury Percent	VITVI Injury Percent	SORHA Control Percent	SORHA Control Percent	SORHA Control Percent
1	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	90 ab	84 ab	80 a
1	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
2	MATRIX	25	WG	0.125	lb ai/a	8	oz/a	SPRING	A	0 a	0 a	0 a	94 a	92 a	68 a
2	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
3	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	85 ab	77 abc	70 a
3	KARMEX	80	WG	2.4	lb ai/a	48	oz/a	SPRING	A						
3	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
4	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	78 b	63 bc	52 abc
4	PRINCEP	4	L	3.6	lb ai/a	3.6	qt/a	SPRING	A						
4	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
5	PRINCEP	4	L	3.6	lb ai/a	3.6	qt/a	SPRING	A	0 a	0 a	0 a	50 c	30 de	33 bcd
5	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
6	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	86 ab	75 abc	80 a
6	KARMEX	80	WG	1.6	lb ai/a	32	oz/a	SPRING	A						
6	PRINCEP	4	L	1.8	lb ai/a	1.8	qt/a	SPRING	A						
6	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
7	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	85 ab	68 abc	60 ab
7	SINBAR	80	WP	0.8	lb ai/a	16	oz/a	SPRING	A						
7	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
8	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	89 ab	82 ab	65 ab
8	PROWL H2O	3.8	CS	1.9	lb ai/a	4	pt/a	SPRING	A						
8	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
9	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	0 a	0 a	0 a	81 b	68 abc	72 a
9	SURFLAN	4	SL	4.0	lb ai/a	8	pt/a	SPRING	A						
9	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
10	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A	0 a	0 a	0 a	32 d	53 cd	57 abc
11	CHATEAU	51	WG	0.25	lb ai/a	7.84	oz/a	SPRING	A	0 a	0 a	0 a	37 cd	20 ef	23 cd
11	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A						
12	NONTREATED									0 a	0 a	0 a	0 e	0 f	0 d
LSD (P=.05)										0.0	0.0	0.0	13.6	28.3	33.9
Replicate F										0.000	0.000	0.000	1.128	2.162	1.803
Replicate Prob(F)										1.0000	1.0000	1.0000	0.3418	0.1389	0.1883
Treatment F										0.000	0.000	0.000	42.570	8.655	4.458
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001	0.0001	0.0014

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code	DIGSA	DIGSA	DIGSA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date	5-20-07	6-19-07	7-19-07
Trt-Eval Interval	30 DA-A	60 DA-A	90 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	99 a
1	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
2	MATRIX	25	WG	0.125	lb ai/a	8	oz/a	SPRING	A	99	a	99 a
2	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
3	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	99 a
3	KARMEX	80	WG	2.4	lb ai/a	48	oz/a	SPRING	A			
3	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
4	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	99 a
4	PRINCEP	4	L	3.6	lb ai/a	3.6	qt/a	SPRING	A			
4	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
5	PRINCEP	4	L	3.6	lb ai/a	3.6	qt/a	SPRING	A	99	a	99 a
5	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
6	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	99 a
6	KARMEX	80	WG	1.6	lb ai/a	32	oz/a	SPRING	A			
6	PRINCEP	4	L	1.8	lb ai/a	1.8	qt/a	SPRING	A			
6	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
7	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	99 a
7	SINBAR	80	WP	0.8	lb ai/a	16	oz/a	SPRING	A			
7	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
8	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	99 a
8	PROWL H2O	3.8	CS	1.9	lb ai/a	4	pt/a	SPRING	A			
8	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
9	MATRIX	25	WG	0.0625	lb ai/a	4	oz/a	SPRING	A	99	a	98 ab
9	SURFLAN	4	SL	4.0	lb ai/a	8	pt/a	SPRING	A			
9	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			
10	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A	0	c	0 c
11	CHATEAU	51	WG	0.25	lb ai/a	7.84	oz/a	SPRING	A	94	b	93 b
11	ROUNDUP ORIG MAX	4.5	SL	0.77	lb ai/a	22	fl oz/a	SPRING	A			99 a
12	NONTREATED									0	c	0 c
LSD (P=.05)										2.0		5.5
Replicate F										1.000		1.390
Replicate Prob(F)										0.3840		0.2710
Treatment F										3246.204		415.950
Treatment Prob(F)										0.0001		0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: DuPont.
2. Ratings: CI/WC 30, 60, + 90 DAT.
3. Vines were entering 3rd leaf (3rd growing season).
 Chambourcin on 5C rootstock.
4. Fruit not approved for consumption.
5. Blanket burndown of glyphosate applied 10 days before the SPRING application on 4-10-07.
6. DA-A = Days after SPRING application.