

UCCE

To evaluate Fleischmann's Vinegar for weed control in grapes.

Trial ID: VinegarGrapes2005

Study Dir.: Benny Fouche

Location: California

Investigator: Mick Canevari

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Appl Code
1	Weed Pharm UNIFILM 707	20 90	% %AW/W	AL SL	50 0.25	gal/a % v/v	50 0.25	gal/a % v/v	A A
2	ROUNDUP ULTRA MAX UNIFILM 707	4 90	LBA/GAL %AW/W	SL SL	1 0.25	lb ai/a % v/v	32 0.25	fl oz/a % v/v	A A
3	Rely UNIFILM 707	1 90	LBA/GAL %AW/W	EC SL	1.0 0.25	lb ai/a % v/v	128 0.25	fl oz/a % v/v	A A
4	UNTREATED CHECK								

Replications: 4, Design: Randomized Complete Block, Treatment units: US standard, Treated plot size Width: 4 feet, Treated plot size Length: 14 feet, Application volume: 50 gal/ac, Mix size: 2.2 liters, Format definitions: G-Herb99.DEF, G-HERB99.FRM

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								VITVI PLATOT C PHYGEN %	ERIBO VITVI PLATOT P CONTRO %	VITVI PLATOT C PHYGEN %
								14/Apr/2005	14/Apr/2005	19/Apr/2005
								Colbert/Wittie	Colbert/Wittie	Colbert/Wittie
								3 DA-A	3 DA-A	8 DA-A
								P	P	P
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Unit	Appl Code	1	2	3
1	Weed Pharm UNIFILM 707	20 %	%	AL	50	gal/a	A	0 a	75 a	0 a
		90 %AW/W	%AW/W	SL	0.25	% v/v	A			
2	ROUNDUP ULTRA MAX UNIFILM 707	4 LBA/GAL	LBA/GAL	SL	1	lb ai/a	A	0 a	2 c	0 a
		90 %AW/W	%AW/W	SL	0.25	% v/v	A			
3	Rely UNIFILM 707	1 LBA/GAL	LBA/GAL	EC	1.0	lb ai/a	A	0 a	41 b	0 a
		90 %AW/W	%AW/W	SL	0.25	% v/v	A			
4	UNTREATED CHECK							0 a	0 c	0 a
	LSD (P=.05)							0.0	4.0	0.0
	Standard Deviation							0.0	2.5	0.0
	CV							0.0	8.52	0.0
	Grand Mean							0.0	29.44	0.0
	Bartlett's X2							0.0	3.222	0.0
	P(Bartlett's X2)							.	0.20	.
	Replicate F							0.000	0.912	0.000
	Replicate Prob(F)							1.0000	0.4731	1.0000
	Treatment F							0.000	819.458	0.000
	Treatment Prob(F)							1.0000	0.0001	1.0000

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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							ERIBO	VITVI	ERIBO
							VITVI	VITVI	VITVI
							PLATOT P	PLATOT C	PLATOT P
							CONTRO	PHYGEN	CONTRO
							%	%	%
							19/Apr/2005	9/May/2005	9/May/2005
							3 FT2		3 FT2
							Colbert/Wittie	Colbert	Colbert
							8 DA-A	28 DA-A	28 DA-A
							P	P	P
Trt	Treatment	Form	Form	Form	Rate	Appl			
No.	Name	Conc	Unit	Type	Rate	Unit	Code		
1	Weed Pharm	20	%	AL	50	gal/a	A		
	UNIFILM 707	90	%AW/W	SL	0.25	% v/v	A	4	5
								50 c	0 a
2	ROUNDUP ULTRA MAX	4	LBA/GAL	SL	1	lb ai/a	A		
	UNIFILM 707	90	%AW/W	SL	0.25	% v/v	A	60 b	0 a
									100 a
3	Rely	1	LBA/GAL	EC	1.0	lb ai/a	A		
	UNIFILM 707	90	%AW/W	SL	0.25	% v/v	A	85 a	0 a
									100 a
4	UNTREATED CHECK							0 d	0 a
	LSD (P=.05)							8.0	0.0
	Standard Deviation							5.0	0.0
	CV							10.26	0.0
	Grand Mean							48.75	0.0
	Bartlett's X2							0.0	0.0
	P(Bartlett's X2)							1.00	.
	Replicate F							1.000	0.000
	Replicate Prob(F)							0.4363	1.0000
	Treatment F							203.667	0.000
	Treatment Prob(F)							0.0001	1.0000

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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Trial ID: VinegarGrapes2005 Study Dir.: Benny Fouche
 Location: California Investigator: Mick Canevari

GENERAL TRIAL INFORMATION

Study Director: Benny Fouche **Title:** Farm Advisor
Affiliation: Cooperative Extension
Postal Code: 95205

Investigator: Benny Fouche/Don Colbert **Title:** Farm Advisor
Affiliation: Cooperative Extension
Postal Code: 95205

TRIAL LOCATION

City: Lodi **Trial Status:** ESTABLISHED
State/Prov.: CA **Trial Reliability:** _____
Postal Code: _____ **Initiation Date:** 11/Apr/2005
Country: USA **Planned Completion Date:** _____
E-Longitude of LL Corner °: _____ **N-Latitude of LL Corner °:** _____
Altitude of LL Corner: _____ **Unit:** _____ **Angle y-axis to North °:** _____
Directions:

COOPERATOR/LANDOWNER

Cooperator: Aberle Acres **Country:** USA
Org: _____ **Phone No:** _____
Address 1: Lower Sacramento Rd/Woodbridge Rd. **Fax No:** _____
Address 2: _____
City: Woodbridge
State/Prov: CA
Postal Code: _____

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N
Guidelines: _____ **Guideline Description:** _____

Objective: To evaluate Fleischmann's Vinegar for weed control in grapes.

Conclusions:

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	ERIBO	Fleabane, hairy	Erigeron bonariensis

Crop 1: VITLA GRAPE, AMERICAN **Variety:** Merlot
Planting Date: 2/May/1993 **Planting Method:** TRANSPLANTED - HAND
Rate: 565 P/A **Depth:** _____ **Perennial Age:** 12 YEAR
Row Spacing: 11 FT **Spacing Within Row:** 7 FT **Seed Bed:** _____
Soil Temperature: _____ **Soil Moisture:** _____ **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 4 FT **Plot Length, Unit:** 14 FT **Reps:** 4
Site Type: VINEYARD
Tillage Type: _____ **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

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SOIL DESCRIPTION

% Sand: _____ % OM: _____ Texture: SANDY LOAM
 % Silt: _____ pH: _____ Soil Name: _____
 % Clay: _____ CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: _____

Closest Weather Station: _____ Distance: _____ Unit: ____

APPLICATION DESCRIPTION

	A
Application Date:	11/Apr/2005
Time of Day:	2:00 pm
Application Method:	SPRAY
Application Timing:	POCPOW
Applic. Placement:	BANSOI
Air Temp., Unit:	76 F
% Relative Humidity:	43
Wind Velocity, Unit:	3 MPH
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	78 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	20

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	VITLA 3-8"Sht
Stage Scale:	DESC
Height, Unit:	5 FT

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	ERIBO 8-40Leaf
Stage Scale:	1.5-6" Ht
Density, Unit:	3 FT2

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	BackPack
Operating Pressure:	35 PSI
Nozzle Type:	Flat Fan
Nozzle Size:	8004
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	
Band Width, Unit:	48 IN
Boom Length, Unit:	2 FT
Boom Height, Unit:	24 IN
Ground Speed, Unit:	3 MPH
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	WATER
Spray Volume, Unit:	50 G/A
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	

Trt No	Treatment Application Comment

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									VITVI PLATOT C PHYGEN %	ERIBO VITVI PLATOT P CONTRO %	VITVI PLATOT C PHYGEN %
									14/Apr/2005	14/Apr/2005	19/Apr/2005
									Colbert/Wittie 3 DA-A P	Colbert/Wittie 3 FT2 3 DA-A P	Colbert/Wittie 8 DA-A P
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Plot	1	2	3
1	Weed Pharm UNIFILM 707	20 % 90 %AW/W		AL	50 gal/a	A	A	1	0	70	0
				SL	0.25 % v/v	A	A	6	0	75	0
								11	0	80	0
								16	0	75	0
								Mean =			0
2	ROUNDUP ULTRA MAX UNIFILM 707	4 LBA/GAL 90 %AW/W		SL	1 lb ai/a	A	A	2	0	2	0
				SL	0.25 % v/v	A	A	5	0	3	0
								10	0	0	0
								13	0	1	0
								Mean =			0
3	Rely UNIFILM 707	1 LBA/GAL 90 %AW/W		EC	1.0 lb ai/a	A	A	3	0	40	0
				SL	0.25 % v/v	A	A	8	0	45	0
								9	0	40	0
								15	0	40	0
								Mean =			0
4	UNTREATED CHECK							4	0	0	0
								7	0	0	0
								12	0	0	0
								14	0	0	0
								Mean =			0

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								ERIBO VITVI PLATOT P CONTRO %	VITVI PLATOT C PHYGEN %	ERIBO VITVI PLATOT P CONTRO %	
								19/Apr/2005	9/May/2005	9/May/2005	
								3 FT2	3 FT2	3 FT2	
								Colbert/Wittie	Colbert	Colbert	
								8 DA-A	28 DA-A	28 DA-A	
								P	P	P	
Trt	Treatment	Form	Form	Form	Rate	Appl	Plot	4	5	6	
No.	Name	Conc	Unit	Type	Rate	Unit	Code				
1	Weed Pharm UNIFILM 707	20	%	AL	50	gal/a	A	1	45	0	0
		90	%AW/W	SL	0.25	% v/v	A	6	55	0	0
								11	45	0	0
								16	55	0	0
								Mean =	50	0	0
2	ROUNDUP ULTRA MAX UNIFILM 707	4	LBA/GAL	SL	1	lb ai/a	A	2	65	0	100
		90	%AW/W	SL	0.25	% v/v	A	5	65	0	100
								10	55	0	100
								13	55	0	100
								Mean =	60	0	100
3	Rely UNIFILM 707	1	LBA/GAL	EC	1.0	lb ai/a	A	3	80	0	100
		90	%AW/W	SL	0.25	% v/v	A	8	90	0	100
								9	90	0	100
								15	80	0	100
								Mean =	85	0	100
4	UNTREATED CHECK							4	0	0	0
								7	0	0	0
								12	0	0	0
								14	0	0	0
								Mean =	0	0	0

Trial Comments

OBJECTIVE: Evaluate several postemergence herbicides for controlling hairy fleabane in an established vineyard located near Woodbridge, California.

MATERIALS & METHODS:

The following herbicides were applied postemergence to the berm of an established Merlot grape vineyard located near Woodbridge, California on 4/11/05: (1) Weed Pharm 20% AL 50 G/A of undiluted product/A, (2) ROUNDUP Ultra Max 4SL 1.0 lb ai/A, (3) Rely 1 EC 1.0 lb ai/A and (4) Untreated Check. Unifilm 707 adjuvant (NIS) added to each herbicide treatment at 0.25% V/V. Treatments were arranged in a randomized complete block design with four replicates. Plot size was 4' by 14'. RoundUp Ultra Max and Rely were applied with a CO2 backpack, 35 psi in 50 G/A of water. Weed Pharm was applied undiluted at 50 G/A. Growth stages prior to application were: grapes = 3-8" shoots and hairy fleabane (*Erigeron bonariensis*) = 50% 8-10 leaf, 1-2" diameter, 25% tillering & bolting initiation, 20-40 leaf, 1.5-2" diameter and 25% tillering & bolted, 40+ leaf, 3-6" diameter. First rainfall occurred on 4/23/05, total .11 inches.

RESULTS & DISCUSSIONS:

Grape Injury: All treatments showed excellent grape tolerance.

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