GRAPE (*Vitis vinifera* 'White Riesling')
Botrytis Bunch Rot; *Botrytis cinerea*

J. W. Pscheidt and J. P. Bassinette
Dept. of Botany and Plant Pathology
Oregon State University
Corvallis, OR 97331-2903

Efficacy of fungicides for management of grape bunch rot, 2016

Fungicide treatments were arranged in a randomized complete block design in a vineyard of 'White Riesling' planted in 1995 on a 7x10 ft spacing. Vines were trained to a bilateral cordon with spur pruning. Vines were pruned from 25 Feb to 3 Mar. Sucker removal and shoot thinning by hand occurred 25 Apr to 3 May. Each treatment was replicated on 4 sets of 5 vines. Fungicides were applied using a hooded boom sprayer at 200 psi resulting in 88 gal water/A. Approximately 2.9 gal of a spray suspension were applied per set of 20 vines. All materials were applied focused on the fruiting zone. Leaves were removed from the fruiting zone on the east side of all vines on 5 Jul. Treatments were applied on 6 Jun (full bloom, BBCH 65), 9 Jun (prior to rain event), 7 Jul (bunch close, BBCH 78), 13 Jul, 28 Aug (Veraison, BBCH 85), 8 Sep, 16 Sep (preharvest) and 22 Sep. Powdery mildew was managed starting with applications of Thiolux (6 lb/A) on 20 and 29 Apr then Quintec (4 fl oz/A) plus Nu-Film-P (16 fl oz/100 gal water) on 12 and 26 May, 3, 16 and 30 Jun, 14 and 28 Jul. Fungicide applications for powdery mildew control were applied using a hooded boom sprayer at 200 psi. Rows were side dressed with a 16-16-16 fertilizer at 100 lb/A on 12 Apr. Makaze (generic glyphosate at 32 fl oz/A) plus AIM (2 fl oz/A) was applied on 2 Mar and Forefit 280 (64 fl oz/A) was applied on 10 May for management of weeds. Thiolux (6 lb/A) was applied 20 and 29 Apr, Envidor (18 oz/A) was applied on 9 May and Movento (6 fl oz/A) was applied on 24 Jun all for management of erineum mites. Nets were placed over rows on 9 to 12 Sep to prevent bird damage. Incidence of bunch rot was determined on 29 Sep by examining 50 clusters from the center of each set of vines. Severity of bunch rot was also determined on 29 Sep by harvesting and examining 50 clusters (average 20.2^{o} Brix) from the center of each set of vines.

Spring growing conditions were considered warmer and dryer than normal with several heat spikes including 95^{o}F on 4 Jun. Weather conditions resulted in accelerated vine growth 2 to 3 weeks ahead of average. Bunch rot symptoms were first observed sporadically throughout the vineyard on 8 Sep. Incidence and severity of bunch rot was not significant different between any treatments including non-treated vines. Incidence was very high but severity had not increased to a point where differences might have been determined. Few conclusions can be gleaned from this trial. No phytotoxicity was observed on any vines treated with any material.

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Treatment & Rate/A or /100 gal as indicated below	Time of application*	% Bunch Rot**	
		Incidence (29 Sep)	Severity (29 Sep)
Non-treated but leaves were pulled..….	None……	88.5	9.1
Luna Experience SC at 8.6 fl oz plus			
Scala SC at 9 fl oz plus			
Nu-Film-P at 15 fl oz/100 gal then	A		
Scala SC at 13.5 fl oz plus			
Nu-Film-P at 15 fl oz/100 gal then	C		
Elevate 50 WG at 16 oz plus			
Nu-Film-P at 15 fl oz/100 gal then	E		
Scala SC at 13.5 fl oz plus			
Nu-Film-P at 15 fl oz/100 gal ……..	G……	80.5	4.2
Luna Experience SC at 8.6 fl oz plus			
Scala SC at 18 fl oz plus			
Nu-Film-P at 15 fl oz/100 gal then	A		
Scala SC at 9 fl oz plus			
Nu-Film-P at 15 fl oz/100 gal then	C		
Elevate 50 WG at 16 oz plus			
Nu-Film-P at 15 fl oz/100 gal then	E		
Scala SC at 9 fl oz plus			
Nu-Film-P at 15 fl oz/100 gal ……..	G……	93.5	7.8
GWN-10320 at 1.5 pt plus			
Nu-Film-P at 15 fl oz/100 gal ……..	All……	93.5	12.8
GWN-10320 at 2 pt plus			
Nu-Film-P at 15 fl oz/100 gal ……..	All……	92.5	19.5
Serenade Opti at 20 oz plus			
Nu-Film-P at 15 fl oz/100 gal ……..	All……	83.5	12.9

* Treatments were applied on A = 6 Jun (full bloom, BBCH 65), B = 9 Jun (prior to rain event), C = 7 Jul (bunch close, BBCH 78), D = 13 Jul, E = 28 Aug (Veraison, BBCH 85), F = 8 Sep, G = 16 Sep (preharvest) and H = 22 Sep.

** Means without letters do not differ significantly based on Fisher's protected LSD (*P=0.05*).