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

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Efficacy of fungicides for control of grape bunch rot, 2007.

Fungicide treatments were arranged in a randomized complete block design in a block 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 19 to 23 Feb. Sucker removal and shoot thinning, by hand, occurred from 17 to 24 May. Vines were pruned to approximately 60 spurs/vine and thinned to approximately 40 shoots/vine. Each treatment was replicated on 4 sets of 5 vines. Fungicide applications were applied using a hooded boom sprayer at 200 psi. Fungicides were applied at 88 gal water/A and were focused on the fruiting zone. Approximately 2.0 gal of a spray suspension were applied per set of 20 vines. Treatments were applied on 22 Jun (full bloom), 19 Jul (bunch close), 17 Aug (10% veraison), and 18 Sep (preharvest). The veraison application was deployed approximately 5 days early in anticipation of precipitation (0.86 in rainfall from 19 to 20 Aug). Quintec (4 oz/200 gal/A) was applied approximately every 14 days using a hooded boom sprayer for control of powdery mildew. Buccaneer (1qt/A) plus Goal 2XL (1qt/A) was applied on 15 Mar for control of weeds in the vine row and Rely (3 qt/A) was applied on 18 May for both weed and sucker control. Incidence of bunch rot was determined on 21 and 29 Sep by examining 50 clusters from the center of each set of vines. Incidence and severity of bunch rot was determined on 3 and 4 Oct by harvesting and examining 50 clusters (16.1^{o} Brix) from the center of each set of vines.

Bunch rot was first observed on 27 Aug on only a few widely scattered clusters but more generally by 17 Sep. A total of 2.93 inches of rain fell between the 29 Sep rating and the 5 Oct harvest and may be responsible for the rapid increase in disease incidence. Due to high variation from plot to plot there were few differences detected among treatments. Lowest disease incidence on 5 Oct was from vines treated with the 50 WG formulation of V-10135, however, the incidence on vines treated with Pristine, high rate of USF 2014, other rates and formulations of V-10135, Elevate, and the higher rate of Poly-D plus Evito were not significantly different. No phytotoxicity was observed on any vines treated with any fungicide.

Treatment and Rate/A	Time of application*	% Bunch Rot (Incidence) 21 Sep**	% Bunch Rot (Incidence) 29 Sep**	% Bunch Rot (5 Oct)**	
				Incidence	Severity
Nontreated …….	None…..…...	7.0	17.5	72.0 a	11.8
Pristine 38 WDG at 10.5 oz plus					
Break-Thru at 4 fl oz/100 gal…….	All……	1.8	5.3	46.0 f	3.8
Vangard 75WG at 10 oz then	Bloom				
Endura at 8 oz then	BC				
Elevate 50 WG at 1 lb then	V				
Scala 60 SC at 18 fl oz……...	PH……	2.5	6.0	57.0 abcdef	4.0
Scala 60 SC at 18 fl oz……...	All……	3.0	8.3	62.5 abcde	5.7
USF 2014 at 12.8 fl oz…….....	All……	2.8	7.8	63.0 abcde	7.6
USF 2014 at 18 fl oz	All……	3.5	9.8	55.5 bcdef	3.1
V-10135 (4 SC) at 8 fl oz.....….....	All……	2.3	9.0	56.0 bcdef	3.3
V-10135 (4 SC) at 12 fl oz.....	All……	6.3	11.5	67.5 abc	6.0
V-10135 (50 WG) at 12 oz.....	All……...	6.0	9.5	45.0 f	4.0
V-10135 (4 SC) at 16 fl oz.....	All……	3.5	5.3	49.0 def	3.8
V-10135 (1.67 SC) at 28.7 fl oz.....	All……	5.0	9.0	52.0 cdef	4.1
Elevate 50 WG at 16 oz	All……	2.0	5.3	50.0 def	2.5
Polyoxin D 11.7 WDG at 8 oz then	Bloom				
Elevate 50 WG at 16 oz then	BC				
Polyoxin D 11.7 WDG at 8 oz then	V				
Elevate 50 WG at 16 oz.....	PH……	5.5	9.5	64.0 abcd	6.1
Polyoxin D 11.7 WDG at 1.3 lb then	Bloom				
Elevate 50 WG at 16 oz then	BC				
Polyoxin D 11.7 WDG at 1.3 lb then	V				
Elevate 50 WG at 16 oz.....	PH…...…	5.5	13.0	70.0 ab	8.1
Polyoxin D 11.7 WDG at 8 oz plus					
Evito 480 SC at 3.8 fl oz then	Bloom				
Elevate 50 WG at 16 oz then	BC				
Polyoxin D 11.7 WDG at 8 oz plus					
Evito 480 SC at 3.8 fl oz then	V				
Elevate 50 WG at 16 oz.....	PH…...…	6.3	8.8	47.5 ef	5.8

* Bloom = Bloom (22 Jun), BC = Bunch Close (19 Jul), V = Veraison (17 Aug), and PH = PreHarvest (18 Sep).

** Means followed by same letter do not differ significantly based on Fisher's protected LSD (P=0.05). Means without letters were not significantly different.