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

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Efficacy of fungicides for control of grape bunch rot, 2010.

Fungicide treatments were arranged in a randomized complete block design in a block of 'White Riesling' planted in 1985 on a 8x10 ft spacing. Vines were trained to a bilateral cordon with spur pruning. Vines were pruned from 15 to 19 Feb. Vines were pruned to approximately 60 spurs/vine and thinned to approximately 40 shoots/vine. Sucker removal and shoot thinning by hand, occurred from 3 to 10 May. Each treatment was replicated on 4 sets of 5 vines. Fungicide applications were applied using a hooded boom sprayer at 150 psi. Fungicides were applied at 80 gal water/A and were focused on the fruiting zone. Leaves were removed from the fruiting zone on the east side of all but nontreated vines on 19 Jul. Approximately 2.6 gal of a spray suspension were applied per set of 20 vines. Treatments were applied on 7 Jul (full bloom), 6 Aug (bunch close), 6 Sep (50% veraison), and 2 Oct (preharvest). Canes were cut above the top wire on 20 Jul and maintained at this height throughout the growing season. A Rex Lime Sulfur application (9 gal/A) was applied to all dormant vines on 9 Apr using a Solo pump-style backpack sprayer to suppress overwintering chasmothecia. Quintec (2 fl oz/A) was used for powdery mildew management and was applied every 2 weeks. Fungicide applications for powdery mildew control were applied using a hooded boom sprayer at 150 psi. No insecticides were used for mite control. A tank mix of Goal 2XL (1.25 qt/A) plus Round-up (1.25 qt/A) was applied on 1 Mar for weed control. No fertilizer was applied this year. Incidence of bunch rot was determined on 6 Oct by examining 50 clusters from the center of each set of vines. Incidence and severity of bunch rot was also determined on 13 Oct by harvesting and examining 50 clusters (average 16.4^{o} Brix) from the center of each set of vines.

Bunch rot was first observed on 20 Sep scattered throughout the vineyard after an unexpected few days of rain totaling 1.39 inches. Another 0.97 inches rain fell between the last fungicide application and harvest. All treatments including pulling leaves alone had significantly lower incidence of bunch rot on 6 Oct than nontreated vines. There was no significant difference in bunch rot incidence among all treatments by 13 Oct. Highest bunch rot severity was recorded from nontreated vines but the severity recorded from vines with leaf pull only and vines treated with Biotector were not significantly different. Vines treated with synthetic fungicides (Elevate and Switch) had the lowest incidence and severity of bunch rot. No phytotoxicity was observed on any vines treated with any material.

Treatment and Rate/A	Time of application*	% Bunch Rot**		
		Incidence (6 Oct)	Incidence (13 Oct)	Severity (13 Oct)
Nontreated and no leaves pulled..….	None……..	53.5 a	94.0	35.6 a
Only leaves pulled..…….	End of Bloom	39.0 b	87.5	24.9 abc
Biotector WP at 5.7 oz….....	All……...	34.3 b	87.0	29.0 ab
Serenade MAX at 3 lb…….....	All……..	31.5 bc	83.5	20.3 bc
Elevate 50 WDG at 1 lb alternate Switch at 14 oz…….....	B and V BC and PH..	19.0 c	80.0	14.3 c

* B = Bloom (7 Jul), BC = Bunch Close (6 Aug), V = Veraison (6 Sep), and PH = PreHarvest (2 Oct).

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