

**Efficacy of fungicides for management of grape bunch rot, 2011.**

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 17 to 21 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 17 to 19 Jun. Each treatment was replicated on 4 sets of 5 vines. Most fungicide applications were applied using a hooded boom sprayer at 150 psi resulting in 80 gal water/A. Biotector treatments were applied at 93 gal water/A using a new Stihl SG 20 backpack dedicated for only this product. Fungicide applications 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 to 3 gal of a spray suspension were applied per set of 20 vines. Treatments were applied on 14 Jul (full bloom), 4 Aug (bunch close), 15 Sep (50% veraison), and 13 Oct (preharvest). Biotector was applied an additional time on 29 Sep before rainstorms for a total of 5 applications. Canes were cut above the top wire on 29 Jul and maintained at this height throughout the growing season.. Quintec (6 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 150psi. No insecticides were used for mite control. Rely (1.6 %) was applied on 10 Jun for weed control. No fertilizer was applied this year. Incidence of bunch rot was determined on 11 and 27 Oct by examining 50 clusters from the center of each set of vines. Severity of bunch rot was also determined on 27 Oct by harvesting and examining 50 clusters (average 17.3° Brix) from the center of each set of vines.

Bunch rot was first observed on 29 Sep generally throughout the vineyard. Only Biotector or Elevate alternate Switch treated vines had significantly fewer rotted bunches than nontreated vines on 11 or 27 Oct. Lowest bunch rot severity was found on vines treated with Elevate alternate Switch, however, vines treated with Biotector or Serenade were not significantly different. Vines where only leaves were removed had bunch rot that was not significantly different than vines where no leaves were pulled. Vines treated with Elevate alternated with 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 (11 Oct)	Incidence (27 Oct)	Severity (27 Oct)
Nontreated and no leaves pulled.....	None.....	20.0 ab	61.0 a	12.7 a
Only leaves pulled.....	None.....	24.5 a	64.0 a	8.8 ab
Biotector WP at 162 grams *.....	All.....	7.5 c	41.0 b	2.8 bc
Serenade Max at 3 lb.....	All.....	8.0 bc	48.0 ab	4.5 bc
Elevate 50 WDG at 1 lb alternate	B and V			
Switch at 14 oz.....	BC and PH..	1.0 c	13.5 c	0.8 c

\* B = Bloom (14 Jul), BC = Bunch Close (4 Aug), V = Veraison (15 Sep), and PH = PreHarvest (13 Oct).  
 Biotector was applied an additional time on 29 Sep for a total of 5 applications.

\*\* 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.