

Efficacy of fungicides for management of grape bunch rot, 2020

Fungicide treatments were arranged in a randomized complete block design in a vineyard 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 12 to 20 Feb. Sucker removal and shoot thinning by hand occurred 2 to 6 May. Canes were cut above the top wire on 14 Jun and maintained at this height throughout the growing season. Each treatment was replicated on 4 sets of 5 vines. Fungicides were applied using a hooded boom sprayer at 150` psi resulting in 80 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 19 to 20 Jun. Treatments were applied on 14 Jun (30% bloom, BBCH 63), 9 Jul (bunch close, BBCH 78), 13 Sep (late veraison, BBCH 85), 22 Sep (preharvest). Applications of Torino (3.4 fl oz/A) alternated with Gatten (6.4 fl oz/A) occurred on 16, 28 May, 10, 21 Jun, 8, 21 Jul and 4 Aug for management of powdery mildew. Fungicide applications for powdery mildew control were applied using a hooded boom sprayer at 150 psi. Movento (6 fl oz/A) was applied on 23 May for erineum mite management. Makaze (64 fl oz/A) plus GoalTender (40 fl oz/A) plus Mission (2.5 fl oz/A) were tank mixed and applied on 21 Feb for management of weeds. No fertilizer was applied during the trial. Nets were placed over rows on 20 Sep to prevent bird damage. Incidence of bunch rot was determined on 30 Sep and 6 Oct by examining 50 clusters from the center of each set of vines. Severity of bunch rot was determined on 6 Oct by harvesting 50 clusters (average 18.5° Brix) from the center of each set of vines.

After the first fungicide application there was a total of 0.85 inches rainfall during bloom, another 1.13 in after the veraison application and 0.5 in after the preharvest application. Bunch rot symptoms were first observed sporadically throughout the vineyard on 19 Sep. Incidence and severity of bunch rot was not significant different between any treatments including non-treated vines. Incidence was high at harvest but severity had not increased to a point where differences might have been determined. No phytotoxicity was observed on any vines treated with any material.

Treatment & rate/A or /100 gal as indicated below	Time of application*	% Bunch rot**		
		Incidence (30 Sep)	Incidence (6 Oct)	Severity (6 Oct)
Non-treated but leaves were pulled	None.....	9.5	79.0	13.5
BotryStop at 4 lb then Luna Experience at 8.6 fl oz	A B, C, D...	9.8	78.5	11.2
Stargus at 2 qt	All...	6.0	90.5	10.6
Stargus at 4 qt	All...	8.0	77.0	14.3
Stargus at 2 qt then Luna Experience at 8.6 fl oz	A B, C, D...	10.8	83.5	12.9

* Treatments were applied on A = 14 Jun (30% bloom, BBCH 63), B = 9 Jul (bunch close, BBCH 78), C = 13 Sep (late veraison, BBCH 85), and D = 22 Sep (preharvest).

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

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