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

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EFFICACY OF FUNGICIDES FOR CONTROL OF GRAPE BUNCH ROT, 2000: The goal of this trial was to determine the potential influence powdery mildew applications have on bunch rot control. Fungicide treatments were arranged in a randomized complete block design in a block of 'White Riesling' planted in 1985 and 1995 on 7 x 10 ft spacing. Vines were trained to a bilateral cordon with spur pruning. The number of buds was adjusted based on pruning weights at the rate of 30 buds/kg canes. Shoot thinning occurred 24-30 May. Each treatment was replicated on 4 sets of 5 vines. Bloom and bunch close treatments were applied using a hydraulic handgun sprayer at 200 psi and at a rate of 100 gal water/A. Verasion and preharvest applications were applied using a hooded boom sprayer at 250 psi at a rate of 100 gal water/A. Approximately 3.5-5 gal of a spray suspension was applied per set of vines depending on growth stage and number of vines per plot. Fungicide treatments were applied on 23 Jun (35% bloom), 21 Jul (bunch closure), 29 Aug (veraison) and 27 Sep (preharvest, Brix at 18.6°). Leaf removal was performed on 7 Jul (shatter) on the east side of the vines. Powdery mildew maintenance sprays were applied at 300 psi and at a rate of 200 gal water/A and approximately 4-7 gal of a spray suspension was applied per set of vines depending on growth stage. Powdery mildew control applications of Thiolux DF (6 lb./A) occurred on 25 May and Rally 40 WP (4 oz/A) was sprayed on 9 and 22 Jun (10% bloom), 6 and 20 Jul, 2 and 16 Aug. Urea fertilizer was spread within vine rows on 14 Apr at 250 lb/A. The herbicide Roundup Original (12 oz/A) plus R-11 (12 oz/A) was applied to control weeds in the vine row on 27 Jun. Nets were placed around vines on 28 Aug to protect fruit from possible bird damage. Incidence of powdery mildew was determined on 8 Aug by examining 50 clusters from the center 3 vines of each set of vines. Incidence and severity of Botrytis bunch rot was determined on 12 Oct (Brix at 19.0^{o}) by harvesting and examining 30 clusters from the center vines of each set of five vines.

There was 1.17 inches rain between the preharvest spray application and harvest. Vines not treated for powdery mildew had poorly developed small clusters and berries, except for vines treated with Flint. Vines treated with Flint had significantly fewer clusters with powdery mildew than nontreated vines. Vines with a high amount of powdery mildew had a correspondingly low amount of bunch rot. Vines treated with Vangard and for powdery mildew had significantly lower bunch rot severity that vines just treated for powdery mildew. Conclusion – you need fruit to do a fruit rot study.

Treatment and Rate/A	% Incidence Powdery Mildew*	% Incidence of Bunch Rot*	% Severity of Bunch Rot*
Nontreated ……..	100 a	1.7 c	0.1 c
Powdery Mildew Control Only ……..	85.5 a	61.7 a	8.3 a
Powdery Mildew Control and Vangard 75 WDG 5 oz ……...	75.5 ab	39.3 ab	2.3 bc
No Powdery Mildew Control but Vangard 75 WDG 5 oz ……...	96.0 a	14.3 bc	0.5 c
No Powdery Mildew Control but Flint 50 WDG 2 oz ……..	54.0 b	54.3 a	6.4 ab

* Means followed by same letter do not differ significantly based on Fisher's protected LSD (P=0.05).

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