

BLUEBERRY (*Vaccinium corymbosum* 'Berkley')  
Mummyberry; *Monilinia vaccinii-corymbosi*

J. W. Pscheidt and John P. Bassinette  
Dept. of Botany and Plant Pathology  
Oregon State University  
Corvallis, OR 97331-2903

### **Fungicide control of mummyberry, 2007.**

Fungicide treatments were arranged in a randomized complete block design in a block of 'Berkley' blueberries planted in 1999 on 5 x 10 ft spacing. Each treatment consisted of 6 single bush replicates. Fungicide treatments were applied using a hydraulic handgun sprayer at approximately 110 psi at a rate of 145 to 290 gal water/A, depending on the amount of foliage present on bushes at time of application. Approximately 1.0 to 2.0 gal of a spray suspension were applied per 6 bushes. Treatments were applied on 16 Mar (100% floral bud break, minor vegetative bud break), 29 Mar, 13 Apr (early bloom), 27 Apr (full bloom), and 12 May (post bloom). Each fungicide treated bush was flanked on each side by nontreated bushes. Nu-Cop (6 lb/A) was applied on 26 Oct 06 (50% leaf drop) to help prevent bacterial blight. Bushes were pruned the 2nd week of January by thinning out small and spindly shoots and removing older non-productive stems. Plots were fertilized on 20 Apr and again on 1 Jun with approximately 200 lb/A (based on in the bush row area) of 21-0-0-24. Due to dry spring weather, overhead irrigation was started on 11 May and continued 2 times per week during the growing season. The number per bush of floral clusters and vegetative shoots with symptoms of primary mummyberry was evaluated on 9 May. On 20 Jun, approximately 300 green, healthy appearing berries were harvested arbitrarily from each Berkley plant and placed in a refrigerator. Over the next few weeks 200 berries were arbitrarily selected, cut in half and evaluated for symptoms of secondary mummyberry (white mycelial mats within the carpels of the berry).

Apothecia started to emerge and open on 26 Mar and continued until the last one was observed on 9 Apr. Weather was dry during that period until a few storms significantly wetted plants on 7, 8 and 11 Apr. Primary mummyberry symptoms were first observed on both flower clusters and shoots starting 23 Apr but were more obvious by 7 May. The amount of flower cluster blight on bushes treated with Indar plus Latron or two different rates of Serenade was not significantly different than that found on nontreated bushes. Lowest amount of flower cluster blight was on bushes treated alternately with Indar or Pristine although bushes treated with just Indar, Topsin and 2 rates of Serenade were not significantly different. Bushes treated with the lowest rate of Serenade had significantly more symptoms of primary mummyberry on vegetative shoots than on nontreated bushes. The number of vegetative shoots with symptoms of primary mummyberry on bushes treated with either Indar alone or Indar alternated with Pristine was significantly lower than on nontreated bushes. Bushes treated with the highest rate of Serenade had significantly more green fruit with mummyberry than on nontreated bushes. The amount of green fruit with mummyberry on all other fungicide treated bushes was not significantly different than nontreated bushes. No phytotoxicity was observed on any fungicide treated trees. Regression of Serenade rates against floral cluster and green fruit data did not result in significant ANOVAs. Although the ANOVA for a regression of shoot data was significant, there was no consistent relationship between disease and rate of Serenade. Thus it seems that Serenade is ineffective on this disease when used at 2 week intervals. Tighter intervals between fungicide applications may help make any fungicide program more effective but will raise the costs associated with disease control.

Treatment & Rate/A	Application Date <sup>x</sup>	Primary Mummyberry Floral Clusters <sup>y</sup> (%)	Primary Mummyberry Shoots/plant <sup>y</sup>	Green Fruit with Mummyberry <sup>y</sup> (%)
Nontreated .....	None.....	15.2 ab	3.8 bc	8.8 bcd
Indar 75 WSP at 2 oz plus				
Latron B1956 at 1 fl oz/100 gal.....	All.....	7.2 bcd	0.3 d	4.0 cd
Indar 75 WSP at 2 oz plus				
Latron B1956 at 1 fl oz/100 gal alternate with	A, C, E			
Pristine 38 WDG at 18.5 oz plus				
Break-Thru at 4 fl oz/100 gal.....	B, D.....	2.5 d	0.3 d	3.4 d
Topsin 4.5 FL at 20 fl oz .....	All.....	5.8 cd	6.2 ab	13.3 ab
Serenade ASO EC at 64 fl oz .....	All.....	6.5 cd	7.2 a	14.0 ab
Serenade ASO EC at 128 fl oz.....	All.....	15.5 a	1.7 cd	9.9 abcd
Serenade ASO EC at 192 fl oz .....	All.....	7.0 bcd	4.5 abc	10.8 abc
Serenade ASO EC at 256 fl oz .....	All.....	11.0 abc	3.5 bcd	16.0 a

<sup>x</sup> Treatments were applied on A = 16 Mar (100% floral bud break, minor vegetative bud break), B = 29 Mar, C = 13 Apr (early bloom), D = 27 Apr (full bloom), and E = 12 May (post bloom).

<sup>y</sup> Means followed by same letter do not differ significantly based on Fisher's protected LSD (P=0.05).