

BLUEBERRY (*Vaccinium corymbosum* 'Bluetta')
Ripe Rot (Anthracnose); *Colletotrichum* sp.

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Fungicide control of blueberry Ripe Rot (Anthracnose), 2006.

Fungicide treatments were arranged in a randomized complete block design in a block of 'Bluetta' blueberries planted in 1999 on 5 x 10 ft spacing. Each treatment consisted of 6 single bush replicates. Fungicide treatments were applied using a Solo backpack pump style sprayer at a rate of 75 to 145 gal water/A, depending on the amount of foliage present on bushes at time of application. Approximately 0.5 to 1.0 gal of a spray suspension were applied per 6 bushes. Treatments were applied on 23 Mar (floral bud break), 6 Apr (early bloom), 19 Apr (full bloom), 4 May (late bloom), 19 May (post bloom), 31 May (green berry), 14 Jun and 28 Jun. Each fungicide treated bush was flanked on each side by nontreated bushes. Nu-Cop (6 lb/A) was applied on 9 Nov 05 (50% leaf drop) to help prevent bacterial blight. Bushes were pruned the first week of Feb by thinning out small and spindly shoots and removing older non-productive stems. Plots were fertilized on 12 Apr and again on 15 May with approximately 200 lb/A (based on in the bush row area) of 16-16-16-8. Due to dry spring weather, overhead irrigation was applied on 13, 15 and 18 May for 4 hours each day. Summer irrigation began on 20 Jun and was applied 2 times per week during the growing season. Nets were placed over bushes on 6 Jun to reduce bird damage. On 6 Jun, whole plants were rated for marginal leaf burn on a 0 to 5 scale where 0 = no marginal burn, 1 = only a few leaves per plant, 2 = up to 25% of the leaves with marginal burn (obvious), 3 = up to 50 % burn, 4 = up to 75% burn, and 5 = all leaves with marginal burn. On 3 Jul, 100 healthy appearing berries were arbitrarily harvested from each Bluetta plant. Berries were weighed and placed on wire racks within moist chambers located in Cordley Hall. Each moist chamber contained two arbitrarily selected treatments, (200 berries or 100 berries per treatment), separated by a wire mesh. Berries were incubated at room temperature (68 to 83 F) for 14 days. The number of berries with symptoms of ripe rot were evaluated and removed each day. Berries rotting from other causes were noted and also removed from the moist chambers daily.

Marginal leaf burn on the high rate of V-10116 was first observed on 31 May two weeks after an unusual heat wave of 90°F weather from 14 to 18 May. Bushes treated with any rate of V-10116 seemed to have significantly more marginal leaf burn than nontreated bushes. Bushes treated with the high rate of V-10116 had significantly more marginal leaf burn than bushes treated with the low rate. At harvest, there were no significant differences among any treatments with respect to berry weight. After harvest, berries from nontreated bushes developed ripe rot rapidly. Berries from any fungicide treated bushes developed significantly less ripe rot or any rot than fruit from nontreated bushes. There were no significant differences among fungicides with respect to any measure of fruit rot.

Note: Blueberry Shock Virus was confirmed in 2004 on one bush. All bushes were sampled this year at bud break for the virus. Many bushes were confirmed positive for the virus. This will continue to be a problem for the next few growing seasons as the virus spreads to other plants.

Treatment & Rate/A	Time of Application ^x	Phytotoxicity rating (0-5 scale) ^z	Ripe Rot (Anthracnose) ^y (%)	All Fruit Rot ^y (%)	Berry Weight 100 Fruit (Grams)
Nontreated	None.....	0.0 c	66.8 a	80.0 a	135.9
Indar 75 WSP at 2 oz plus Latron B1956 at 1 fl oz then	A, B				
CaptEbate 68WDG at 3.5 lb alternate Pristine 38EG at 18.5 oz/plus Break Thru at 4 fl oz	C, E, G D, F, H.....	0.2 c	1.7 b	4.0 b	124.8
Pristine 38EG at 18.5 oz/plus Break Thru at 4 fl oz	All.....	0.2 c	1.3 b	5.2 b	128.9
V-10116 at 4 oz	All.....	1.2 b	1.8 b	11.0 b	123.9
V-10116 at 8 oz	All.....	1.8 a	0.2 b	4.8 b	128.7
V-10116 at 12 oz	All.....	2.2 a	0.0 b	1.5 b	121.4

^x A= 23 Mar (floral bud break), B = 6 Apr (early bloom), C = 19 Apr (full bloom), D = 4 May (late bloom), E = 19 May (post bloom), F = 31 May (green berry), G = 14 Jun and H = 28 Jun.

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

^z Whole plants were rated for marginal leaf burn on a 0 to 5 scale where 0 = no marginal burn, 1 = only a few leaves per plant, 2 = up to 25% of the leaves with marginal burn (obvious), 3 = up to 50 % burn, 4 = up to 75% burn, and 5 = all leaves with marginal burn.