

BLUEBERRY (*Vaccinium corymbosum* ‘Bluetta’)
Ripe Rot (Anthracnose); *Colletotrichum acutatum*

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Fungicide management of blueberry post-harvest fruit rot, 2024.

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 hydraulic handgun sprayer at approximately 100 psi at a rate of 218 gal water/A. Approximately 1.5 gal of a spray suspension were applied per 6 bushes. Treatments were applied on 2 Apr (prebloom), 16 Apr (full bloom), 1 May (late bloom to petal fall), 17 May (fruit set), 29 May (berry sizing), and 17 Jun (pre-harvest, 50% color development). Kocide 3000 (2.5 lb/A) was applied on 8 Nov 2023 for management of bacterial canker. GlyStar Plus was spot sprayed on 29 Jan and 5 Mar for management of perennial weeds. No insecticides were used during the trial. Fertilizer (20-0-0 ammonium sulfate at 142 lb/A) was applied on 5 Mar. Bushes were pruned 20 to 26 Feb by thinning out small, dead and spindly shoots and removing older non-productive stems. Overhead irrigation was started on 14 Jun and continued twice per week for 3 hour sets during the growing season. On 28 Jun 100 healthy appearing, ripe berries were arbitrarily harvested from each bush. Berries were placed within moist chambers located in Cordley Hall. Berries were incubated at room temperature (70°F) for 15 days. The number of berries with symptoms of various rots were evaluated and removed each day.

Rainfall during the dormant season 2023-24 was 4.1 inches above normal, spring weather conditions were close to long term norms while summer was accented by a few high heat events. In addition to fungi listed above the following fungi were also observed on rotting fruit post harvest at highly variable frequencies: *Botrytis cinerea* and *Rhizopus* sp. Highest post harvest Ripe Rot (Anthracnose) or total fruit rot was observed on fruit from non-treated bushes, however, due to high variation, this was not significantly different from any of the fungicide treated bushes. No phytotoxicity was observed on leaves or fruit from fungicide treated bushes.

Treatment & Rate/A or /100 gal as indicated below	Time of application ^x	Ripe Rot (Anthracnose) ^z (%)	All Fruit Rots ^z (%)
Non-treated.....	None.....	19.0	24.0
Pristine DF at 23 oz plus OVS 90 NIS at 8 fl oz/100 gal Alternate with Switch 62.5 WG at 14 oz plus OVS 90 NIS at 8 fl oz/100 gal	A, C and E B, D, and F	2.2	4.2
BAS 752 at 10 fl oz	All.....	1.2	2.7
BAS 752 at 10 fl oz plus OVS 90 NIS at 8 fl oz/100 gal.....	All.....	12.5	16.8
BAS 752 at 20 fl oz	All.....	0.5	1.2
BAS 752 at 20 fl oz plus OVS 90 NIS at 8 fl oz/100 gal.....	All.....	3.5	5.2

^x Treatments were applied on A = 2 Apr (prebloom), B = 16 Apr (full bloom), C = 1 May (late bloom to petal fall), D = 17 May (fruit set), E = 29 May (berry sizing), and F = 17 Jun (pre-harvest, 50% color development).

^z Means followed by same letter do not differ significantly based on Fisher’s protected LSD ($P=0.05$). Means without letters are not significantly different.