

Fungicide management of blueberry ripe rot, 2017.

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 110 psi at a rate of 290 gal water/A. Approximately 2 gal of a spray suspension were applied per 6 bushes. Treatments were applied on 14 Apr (5% open blooms), 28 Apr (70% bloom), 12 May (petal fall), 25 May (green fruit), 7 Jun (green fruit), and 22 Jun (pre-harvest). Botector was applied using a Stihl-20 backpack sprayer only used for biological materials. Each fungicide treated bush was flanked on each side by non-treated bushes. Badge X2 (7 lb/A) was applied on 28 Oct 16 (>50% leaf drop) to prevent bacterial blight. Bushes were pruned 5 to 12 Dec 16 by thinning out small, dead and spindly shoots and removing older non-productive stems. A dormant oil spray of Omni supreme-oil (1.5 gal/A) was applied on 13 Feb for scale management. Makaze (generic glyphosate at 2.5 oz/gal) was applied on 8 Mar and Rely 280 (1.7 fl oz/gal) was applied on 8 May to control weeds. Plots were fertilized on 30 May with approximately 150 lb/A (based on in the bush row area) of ammonium sulfate 20-0-0-22. Overhead irrigation was started on 30 May and continued twice per week for 3 hour sets during the growing season. Nets were placed over bushes on 21 Jun to reduce bird damage. On 30 Jun, 100 healthy appearing, ripe berries were arbitrarily harvested from each Bluetta bush. Berries were placed within moist chambers located in Cordley Hall. Berries were incubated at room temperature (72 to 78°F) for 6 days. The number of berries with symptoms of various rots were evaluated and removed each day.

Spring weather conditions for 2017 were considered cool and wet but with more normal plant growth relative to time of year. Fruit rot was not observed in the field during harvest. In addition to ripe rot the following fungi were also observed on rotting fruit post harvest at highly variable frequencies: *Botrytis* sp., *Rhizopus* sp. and *Penicillium* sp. Highest fruit rot was observed on fruit from non-treated bushes, however, rot on bushes treated with Pyraziflumid was not significantly different. Fruit from bushes treated with Pristine plus Captan had significantly lower fruit rot than fruit from bushes in all other treatments. Fruit from bushes treated with Botector had significantly less fruit rot than fruit from non-treated bushes but significantly more fruit rot than fruit from bushes treated with Pristine plus Captan. No phytotoxicity was observed on leaves or fruit from fungicide treated bushes.

Treatment & Rate/A or /100 gal as indicated below	Ripe Rot (Anthracnose)* (%)	All Fruit Rots* (%)
Non-treated	75.8 a	78.3 a
Botector at 10 oz.....	47.2 b	48.2 b
Pyraziflumid 20 SC at 1.54 fl oz plus		
Induce at 16 fl oz/100 gal	59.8 ab	60.5 ab
Pyraziflumid 20 SC at 3.09 fl oz plus		
Induce at 16 fl oz/100 gal	71.3 a	71.8 a
Pristine WDG at 23 oz plus		
Captan 80 WDG at 1.5 lb plus		
Induce at 16 fl oz/100 gal	4.7 c	4.7 c

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