

CHERRY (*Prunus avium* ‘Corum’)
Brown Rot; *Monilinia* spp.

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Comparison of fungicides for management of cherry brown rot blossom blight, 2017.

Treatments were arranged in a randomized complete block design in a ‘Corum’ sweet cherry orchard on Mazzard F 12-1 rootstock planted in 1964 on 20 x 40 ft spacing and grafted in 1967. Each treatment consisted of 4 single tree replicates. Fungicides were applied using a hydraulic handgun sprayer at 110 psi and at a rate of 82 gal water/A. Approximately 6 gal of a spray suspension were applied per 4 trees. Fungicide treatments were applied on 4 Apr (popcorn), 11 Apr (full bloom), and 21 Apr (petal fall). Fungal infection periods were monitored using an Adcon weather station equipped with standard sensors. According to a brown rot blossom blight risk model there were 5 infection risk periods detected on 28 Mar and 6, 16, 19 and 23 Apr. Plots were heavily pruned 18 to 30 Nov 16 to reduce height. Omni Supreme oil (1.5 gal/A) was applied to the entire block on 14 Feb, for Aphid management. Assail 70 WP (4 oz/A) was applied on 26 May to manage western cherry fruit fly and aphids. Insecticides were applied using a Rear’s air blast speed sprayer. No herbicide or fertilizer was applied during the fruiting season. Incidence of brown rot blossom blight was evaluated on 27 to 28 Apr by examining 250 blossoms on the east and west side of trees for a total of 500 blossoms arbitrarily selected from the lower portion of each tree. Due to extremely poor fruit set from heavy pruning and rain during bloom and rain cracking near harvest, brown rot fruit rot was not evaluated on fruit.

Spring weather conditions for 2017 were considered cool and wet but with more normal plant growth relative to time of year. Brown rot blossom blight was first observed on 9 Apr. All treated trees had significantly fewer blossoms with brown rot than on non-treated trees. Lowest brown rot blossom blight was on trees treated with Luna Sensation but the amount found on trees treated with any of the GWN materials was not significantly different. No phytotoxicity was observed in trees treated with any of the various materials used.

Treatment & Rate/A or /100 gal as indicated below	Brown Rot Blossom Blight (%)*	
Non-treated	4.4	a
Luna Sensation at 7.6 fl oz plus Induce at 16 fl oz/100 gal	0.2	b
GWN 10411 SC at 3 fl oz plus Induce at 16 fl oz/100 gal	1.5	b
GWN 10411 SC at 4 fl oz plus Induce at 16 fl oz/100 gal	1.2	b
GWN 10411 SC at 5 fl oz plus Induce at 16 fl oz/100 gal	1.3	b
GWN 10570 15SC at 6.8 fl oz plus Induce at 16 fl oz/100 gal	0.5	b
GWN 10570 15SC at 10.3 fl oz plus Induce at 16 fl oz/100 gal	0.3	b
GWN 10570 15SC at 13.7 fl oz plus Induce at 16 fl oz/100 gal	1.4	b

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