

CHERRY (*Prunus avium* 'Corum')
 Brown Rot Blossom Blight; *Monilinia laxa*
 Brown Rot Fruit rot; *Monilinia fruticola*

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Comparison of Valent numbered fungicides for control of cherry brown rot, 2006.

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 110 gal water/A. Approximately 8 gal of a spray suspension were applied per 4 trees. Fungicide treatments were applied on 4 Apr (popcorn), 9 Apr (full bloom), and 20 Apr (petal fall). Fungal infection periods were monitored using an Adcon A730 weather station equipped with standard sensors. According to a brown rot blossom blight risk model there was only 1 infection risk period detected on 14 Apr which fell between full bloom and petal fall. Dormant oil, (Omni spray oil, 4 gal/A.) was applied to the entire block on 21 Feb, using a Rear's air blast speed sprayer for Aphid control. Round-up Ultramax (2 qt/A) plus Oryzalin 4 A.S. was applied on 13 Mar for weed control. Rejexit (2.5 gal/A) was applied on 6 Jun and again on 13 Jun as a bird repellent. Additionally, electronic bird distress calls, pistol-launched pyrotechnics, scare crows and forcefully propelled metallic pellets were used throughout ripening to deter bird pests. Incidence of brown rot blossom blight was evaluated on 1 May by examining 500 blossoms arbitrarily selected from the lower portion of each tree. Fruit was evaluated for brown rot fruit rot on 26 Jun by examining 200 fruit arbitrarily selected from the lower portion of each tree.

Spring weather conditions in Western Oregon were considered cold and wet. Brown rot blossom blight was first observed on 12 Apr which indicated there must have been infections during wet periods with temperatures near 50 F on 2 and/or 8 Apr. Brown rot fruit rot was first observed on 3 Jun on widely scattered fruit. All fungicide treated trees had significantly less brown rot blossom blight than nontreated trees. There were no significant differences in brown rot blossom blight among the various fungicide treated trees. All fungicide treated trees had significantly less brown rot fruit rot than nontreated trees except for trees treated with the low rate of V-10135. There were no significant differences in disease measures among the rates of V-10135 or among the rates of V-10116 used. No phytotoxicity was observed on any fungicide treated trees.

Treatment & Rate/A	Brown Rot Blossom Blight (%)*		Brown Rot Fruit Rot (%)*	
Nontreated	10.9	a	22.3	a
V-10135 (50 WG) at 6 oz.....	2.2	b	17.8	ab
V-10135 (50 WG) at 8 oz.....	1.6	b	13.5	bc
V-10135 (50 WG) at 10 oz.....	1.2	b	10.6	bc
V-10116 (50 WG) at 1.8 oz.....	2.3	b	10.5	bc
V-10116 (50 WG) at 2.6 oz.....	1.0	b	9.6	c
V-10135 (50 WG) at 6 oz plus V-10116 (50 WG) at 1.8 oz.....	1.4	b	10.6	bc
Pristine 38EG at 15.5oz alone.....	1.3	b	13.0	bc

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