

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

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COMPARISON OF FUNGICIDES FOR CONTROL OF CHERRY BROWN ROT, 2001: Treatments were arranged in a randomized complete block design in a 'Royal Anne' 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 5 single tree replicates. Fungicides were applied using a hydraulic handgun sprayer at 200 to 300 psi and at a rate of 275 to 325 gal water/A. Approximately 25 to 30 gal of a spray suspension were applied per 5 trees. Bloom treatments were applied on 5 Apr (59% popcorn), 16 Apr (77% bloom), 2 May (90% petal fall and some at shuck split) and 21 Jun (8 days preharvest). Paraquat (2 qt/A) tank mixed with R-11 (1/2%) was applied to the tree row floor for weed control on 10 May. Urea fertilizer was broadcast around each tree on 15 Mar at 102 lb/tree. Dimethoate 267 (1 gal/A) was applied for control of cherry fruit fly on 4 Jun. Rejex-it (2.5 gal/A) was applied on 13 Jun in an unsuccessful attempt to discourage bird feeding. Incidence of brown rot blossom blight was evaluated on 4 May by examining 500 blossoms randomly selected from the lower portion of each tree. Incidence of brown rot fruit rot was evaluated on 28 Jun (7 days following the preharvest fungicide application) by examining 500 fruit randomly selected from the lower portion of each tree. After nearly three weeks of bird razing (popguns and fireworks) fruit was harvested on 29 Jun by hand picking 100 healthy-appearing fruit per tree. Fruit were placed into plastic boxes lined with moist paper towels and incubated in the laboratory at ambient temperature (67° - 82° F). Incidence of fruit with brown rot, *Rhizopus* sp. and other rots were monitored daily for a total of 8 days (7 Jul). Incidence of brown rot fruit rot was evaluated on the trees after harvest on 6 Jul by randomly examining 500 fruit that remained on each tree.

Spring weather conditions in Western Oregon were considered dry with 50% below normal rainfall. Blossom blight pressure was light but a 1.14 in rainstorm just before harvest increased rain cracking and fruit rot pressure. Only trees treated with Trilogy alone did not have significantly less brown rot blossom blight than nontreated trees. Lowest amount of brown rot blossom blight was detected on trees treated with BAS 516, however, the amount of brown rot blossom blight detected on other fungicide treated trees was not significantly different (except for those treated alone with Trilogy). There were no significant differences in brown rot fruit rot on the trees at harvest among the various treatments. On trees one week after harvest, there was no brown rot fruit rot found on Indar or BAS 516 treated trees but the amount of brown rot that was found on other fungicide treated trees was not significantly different (except for those treated with Trilogy alone). Lowest amount of brown rot fruit rot during the post-harvest fruit rot test was on fruit from trees treated with BAS 516. However, the amount of brown rot that developed on fruit from trees treated with Trilogy alternated with Abound, Indar, Vanguard (4 times), or the Rovral/Indar/Bravo/Orbit alternation was not significantly different. There were no significant differences in post-harvest *Rhizopus* fruit rot among the various treatments (data not shown). There were no significant differences in any measure of brown rot on trees treated with Vanguard once at 10 oz/A compared with trees treated 4 times at 5 oz/A. No phytotoxicity was observed on any trees treated with any fungicide.

Treatment & Rate/A	Time of Application**				Brown Rot Blossom Blight (%)*	Brown Rot Fruit Rot at Harvest (%)*		Post-harvest Brown Rot (%)*
	P	FB	PF	PH		28 Jun	6 Jul	
Nontreated .....	--	--	--	--	7.2 a	1.3	10.9 a	55.8 a
Trilogy 70 EC 3 gal.....	X	X	X	X	4.5 ab	1.4	10.0 ab	53.0 a
Trilogy 70 EC 3 gal Abound 2.08 F 12 fl oz .....	X		X		0.8 c	0.4	0.5 c	4.4 c
Indar 75 W 2 oz + Latron B-1956 at 9 oz.....	X	X	X	X	0.7 c	0.5	0.0 c	7.6 c
BAS 516 (38 WG) 14.7 oz.....	X	X	X	X	0.4 c	0.2	0.0 c	3.2 c
Rovral 50 WP 2 lb then Indar 75 W 2 oz + Latron B-1956 at 9 oz then Bravo Weather Stik 5.5 pt then Orbit EC 4 oz.....	X							
Vanguard 75 WG 5 oz.....	X	X	X	X	0.6 c	0.3	0.6 b	16.0 bc
Vanguard 75 WG 10 oz.....	X	--	--	--	1.8 bc	0.3	4.6 bc	31.2 b

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

\*\* Treatments were applied on P = Popcorn (5 Apr), FB = Full Bloom (16 Apr), PF = Petal Fall (2 May), and/or PH = 8 days preharvest (21 Jun).