CHERRY ((Prunus avium 'Black Republican') Brown Rot Blossom Blight; Monilinia laxa Cherry Leaf Spot; Blumeriella jaapii J. W. Pscheidt and L. D. Wallace Dept. of Botany and Plant Pathology Oregon State University Corvallis, OR 97331-2903

COMPARISON OF FUNGICIDES FOR CONTROL OF CHERRY DISEASES, 2000: Treatments were arranged in a randomized complete block design in a 'Black Republican' sweet cherry orchard on Mazzard F-12-1 rootstock planted on a 20 x 20 ft spacing in 1961. Each treatment consisted of 4 double tree replicates (8 trees/trt). Fungicides were applied using a hydraulic handgun sprayer at 300 psi and at a rate of 300 gal water/A. Approximately 23 gal of a spray suspension were applied per 8 trees. Bloom treatments were applied on 5 Apr (20% Popcorn and 40% Full Bloom), 12 Apr (90% Full Bloom), 21 Apr (70 % Petal Fall), and 1 May (Shuck Split). Urea fertilizer was broadcast around each tree on 3 Apr at 120 lb/A. A total of 6 cherry leaf spot infection periods were detected from Apr through May: 1 high infection period (9 May); 1 moderate infection period (14 Apr); and 4 light infection periods (12 and 21 Apr, 7 and 27 May). Incidence of brown rot blossom blight was evaluated on 24 Apr (petal fall) by examining 500 blossoms randomly selected from the lower portion of each set of trees. Leaf spot was evaluated on 20 Jun by examining all the leaves on 25 current year terminal shoots (189-255 leaves per tree) randomly selected form the lower portion of each tree. Insufficient fruit developed for evaluation of fruit rot.

The spring growing season was characterized as dry which resulted in low brown rot pressure. All trees treated with fungicide had significantly fewer blighted blossoms than nontreated trees. No significant differences in brown rot blossom blight were detected among the various fungicide treatments including a single application of Vangard at 10 oz/A applied at popcorn. All trees treated with fungicide had significantly fewer leaves with cherry leaf spot than nontreated trees. All trees treated with fungicide at shuck split had significantly fewer leaves with cherry leaf spot when compared with trees not treated at that time. No phytotoxicity was observed on any trees treated with any fungicide or fungicide combination.

	Time of				Brown Rot	Leaf Spot
	Application**				Blossom Blight	
Treatment & Rate/A	Р	FB	PF	SS	(%)*	(%)*
Nontreated					11.0 a	36.4 a
Abound 2.08 F 12.3 fl oz Alternate	Х		Х			
Bravo WeatherStik 5 pt		Х		Х	1.5 b	1.0 c
Indar 75 WP 2 oz +						
Latron B-1956 12 fl oz	Х	Х	Х	Х	1.0 b	1.3 c
Vangard 75 WP 5 oz then	Х	Х	Х			
Flint 50 WG 2 oz				Х	0.0 b	3.0 c
Flint 50 WG 2 oz	Х	Х	Х	Х	1.0 b	2.0 c
Vangard 75 WP 10 oz	Х				1.3 b	22.1 b

\* Means followed by the same letter do not differ significantly based on Fishers Protected LSD (P=0.05)

\*\* Treatments were applied on P = Popcorn (5 Apr), FB = Full Bloom (12 Apr), PF = Petal Fall (21 Apr), and SS = Shuck Split (1 May).