

PEACH (*Prunus persica* 'Red Haven')
 Peach Leaf Curl; *Taphrina deformans*
 Shothole; *Wilsonomyces carpophilus*

J. W. Pscheidt and Gordon Kenyon
 Dept. of Botany and Plant Pathology
 Oregon State University
 Corvallis, OR 97331-2903

COMPARISON OF FUNGICIDES FOR CONTROL OF PEACH LEAF CURL AND SHOTHOLE, 2002: Treatments were arranged in a randomized complete block design in a block of 'Red Haven' peaches planted in 1971 on a 20 x 20 ft spacing. Each fungicide treatment consisted of 4, single tree replicates. Fungicides were applied using a hydraulic handgun sprayer at 150-200 psi and at a rate of 200 gal water/A. Approximately 7 to 8 gal of a spray suspension were applied per treatment. Dormant treatments were applied on 6 Nov 01 (50% leaf drop), 12 Dec 01, 4 Jan 02, and 20 Feb 02 (delayed dormant). Glyphos xtra (2 qt/A) tank mixed with Diuron 4 L (1.6 qt/A) was applied on 20 Mar 02 for weed control. All herbicide rates are based on in the tree row area. Success (8 oz/A) was applied on 2 and 19 Apr 02 for control of peach twig borer. The number of shoots out of 50 with shothole twig cankers was determined on 12 Apr 02. Incidence of dead buds per 100 terminals was determined for each tree on 24 Apr 02. Incidence of dead buds per 20 lateral shoots was determined for each tree on 29 Apr 02. Incidence of peach leaf curl was evaluated on 10 May 02 by examining 200 lateral shoots and 100 terminal shoots randomly selected from each tree.

The dormant season rainfall was 4.15 inches above normal, however, rainfall during the growing season was well below normal. Symptoms of shothole as stem cankers were not as plentiful as in past years, however, dead buds were numerous in the spring. Nontreated trees had significantly more peach leaf curl and shothole than treated trees. Trees treated with Ziram Granuflo or Lime Sulfur had significantly less peach leaf curl than trees treated with Kocide 2000. Only trees treated with Echo 720 at the delayed dormant stage had peach leaf curl not significantly different than Ziram or Lime Sulfur treated trees. Trees treated with Echo or Lime Sulfur only at leaf drop and delayed dormant had a statistically similar number of dead terminal or lateral buds when compared with nontreated trees. Best terminal dead bud control was on Ziram treated trees but control on Kocide (any timing) or Echo or Lime Sulfur trees treated during the dormant period were not significantly different. Best lateral dead bud control was on Kocide trees treated during the dormant season but control on Ziram (any timing) or Echo trees treated during the dormant period were not significantly different. Over the last several years it appears Ziram is best on both leaf curl and shothole at just leaf drop and delayed dormant while Lime Sulfur is best on only leaf curl, Kocide is best on only shothole if used during the dormant season, and chlorothalonil products such as Echo are best if used all dormant season long.

Treatment & Rate/A	Application Timing**	% Peach Leaf Curl*			% Dead Lateral buds*	Shothole Twig Cankers (%)
		Infected Terminal Shoots	Infected Lateral Shoots	% Dead Terminal buds*		
Nontreated	None.....	99.3 a	96.5 a	16.0 ab	50.4 a	28.0 a
Ziram Granuflo 8 lb	A and D.....	1.5 e	0.0 e	2.8 d	30.4 de	0.3 c
Ziram Granuflo 8 lb	A, B and C.....	2.3 e	0.5 e	4.0 cd	30.8 de	0.3 c
Echo 720 at 3 pt	A and D.....	10.8 e	6.9 de	11.0 abc	46.2 abc	13.8 b
Echo 720 at 3 pt	A, B and C.....	23.2 d	10.1 d	7.3 cd	30.8 de	4.3 c
Lime Sulfur (29%) 20 gal ..	A and D.....	3.8 e	0.4 e	18.0 a	46.9 ab	3.0 c
Lime Sulfur (29%) 20 gal ..	A, B and C.....	1.5 e	0.8 e	8.8 bcd	36.9 cd	2.3 c
Kocide 2000 12 lb	A and D.....	60.0 c	19.4 c	5.8 cd	37.3 bcd	2.0 c
Kocide 2000 12 lb	A, B and C.....	75.0 b	40.4 b	3.0 cd	26.6 e	1.0 c

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

** A = 6 Nov 01 (50% leaf drop), B = 12 Dec 01, C = 4 Jan 02, and D = 20 Feb 02 (delayed dormant).