

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

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Comparison of fungicides for control of peach leaf curl and shothole, 2007.

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 110 psi and at a rate of 135 to 162 gal water/A depending on amount of foliage present. Approximately 5 to 6 gal of a spray suspension were applied per treatment. Dormant treatments were applied on 27 Oct 06 (50% leaf drop), 7 Dec 06, 18 Jan 07, and 8 Feb 07 (delayed dormant). Buccaneer (1 pt/A) plus Diuron 4L (3 qt/A) was applied on 16 Mar 07 to control in-row weeds. Trees were pruned from 15 to 30 Dec 06. Dormant oil (Omni spray oil at 4 gal/A) was applied to the entire block on 4 Mar 07, using a Rear's air blast speed sprayer for Aphid control. The number of stems with shothole twig cankers, was determined on 20 Mar 07 by examining 50 arbitrarily selected shoots from each tree. Incidence of terminal bud death was determined on 4 Apr 07 by examining the terminal bud from 75 arbitrarily selected terminal shoots from each tree. Incidence of lateral bud death was determined for each tree on 5 Apr 07 by examining all lateral buds (284 to 419) from 20 arbitrarily selected shoots. Incidence of peach leaf curl was evaluated on 9 and 10 May 07 by examining all lateral buds (67 to 282) from 20 arbitrarily selected shoots and examining terminal buds from 50 arbitrarily selected terminal shoots from each tree.

The overall dormant season rainfall was 5.17 in above normal. Symptoms of shothole as stem cankers were first noted on 2 Feb 07 and were very obvious by 5 Mar 07. Symptoms of leaf curl were first noted on 16 Apr 07. Trees treated with Kocide 3000 did not have significantly less peach leaf curl than nontreated trees. Lowest amount of leaf curl on terminal or lateral shoots was on trees treated with Ziram. The amount of leaf curl on lateral shoots from trees treated with Nu-Cop was not significantly different than on trees treated with Ziram. All fungicide treated trees had significantly less bud death than nontreated trees. Trees treated with Kocide products had similar bud death but significantly more bud death than trees treated with either Nu-Cop or Ziram. All fungicide treated trees had significantly less shothole twig cankers than nontreated trees. Lowest amount of shothole twig cankers was on trees treated with Ziram. The addition of Regard with Kocide 3000 did not seem to benefit disease control except for shothole twig cankers which were significantly lower. The freezing point of Regard at 40°F is problematic during our cool dormant seasons. Based on the performance of Nu-Cop it would be recommended to use higher rates of Kocide, if possible, in the Willamette Valley of Oregon than those used in this trial.

Treatment & Rate/A	% Peach Leaf Curl*		% Dead Terminal buds*	% Dead Lateral buds*	Shothole Twig Cankers (%)*
	Infected Terminal Shoots	Infected Lateral Shoots			
Nontreated	97.3 a	96.0 a	63.3 a	71.9 a	98.5 a
Kocide 2000 DF at 12lb.....	79.4 b	87.0 a	36.7 b	44.8 b	61.0 c
Kocide 3000 DF at 7lb plus					
Regard at 16 fl oz/100 gal ..	92.6 ab	85.8 a	40.0 b	50.1 b	56.5 c
Kocide 3000 DF at 7 lb	88.3 ab	85.8 a	44.3 b	54.2 b	79.5 b
Nu-Cop 50 DF at 16 lb	30.5 c	24.3 b	12.0 c	19.8 c	59.5 c
Ziram 76 DF at 6 lb	16.0 d	17.0 b	10.7 c	13.7 c	24.5 d

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