

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, 2003.**

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 5 Nov 02 (80% leaf drop), 23 Dec 02, 16 Jan 03, and 26 Feb 03 (delayed dormant). Glyphos X-TRA (3 qt/A) tank mixed with Surflan AS (3 qt/A) was applied on 15 Apr 03 for weed control. All herbicide rates are based on in the tree row area. The number of shoots out of 100 with shothole twig cankers was determined on 17 Apr 03. Incidence of dead buds per 100 terminals was determined for each tree on 30 Apr 03. Incidence of dead buds per 20 lateral shoots was determined for each tree on 1 May 03. Incidence of peach leaf curl was evaluated on 19 May 03 by examining 200 lateral shoots and 57 to 100 terminal shoots randomly selected from each tree.

The overall dormant season rainfall was 2.53 inches below normal, however, rainfall during December was 4.81 inches above normal. Symptoms of shothole as stem cankers were found starting 3 March. Almost all shoots showed some leaf curl on nontreated trees. The number of curl infected terminal or lateral shoots on trees treated with Cuprofix or Captan was not significantly different than the number found on nontreated trees, however, significantly fewer lateral shoots were infected when using Cuprofix in early Nov and late Feb. Best curl control was found on trees treated with ziram alone or in rotation. All fungicide treated trees had significantly fewer dead terminal or lateral buds than nontreated trees, except when Captan was used only in early Nov and late Feb. All fungicide treated trees had significantly fewer shoots with shothole twig cankers than nontreated trees. Captan treated trees had significantly more shoots with shothole twig cankers than trees treated with other fungicides. It is suspected that both Cuprofix and Kocide did well for shothole control on a leaf curl schedule due to the below normal rainfall.

Treatment & Rate/A	Application Timing**	% Peach Leaf Curl*		% Dead Terminal buds*	% Dead Lateral buds*	Shothole Twig Cankers (%)
		Infected Terminal Shoots	Infected Lateral Shoots			
Nontreated .....	None.....	100 a	99.9 a	33.0 a	50.1 a	63.8 a
Ziram 76 DF 8 lb .....	A and D.....	11.3 c	3.4 d	6.0 c	3.3 c	3.5 c
Ziram 76 DF 8 lb .....	A, B and C...	4.5 c	6.4 d	5.8 c	1.7 c	5.5 c
Kocide 2000 12 lb .....	A and D.....	60.8 b	41.8 c	14.3 bc	13.9 bc	4.0 c
Kocide 2000 12 lb .....	A, B and C...	66.3 b	55.4 bc	8.5 bc	9.3 c	2.5 c
Cuprofix Disperss 20 lb	A and D.....	81.8 ab	50.6 c	10.5 bc	7.5 c	2.0 c
Cuprofix Disperss 20 lb	A, B and C...	83.0 ab	75.6 ab	9.5 bc	9.0 c	2.5 c
Captan 50WP 5 lb	A and D.....	86.5 ab	84.3 a	23.3 ab	32.5 ab	42.0 b
Captan 50WP 5 lb	A, B and C...	84.8 ab	88.4 a	7.3 c	19.5 bc	38.0 b
Ziram 76 DF 8 lb then	A					
Kocide 2000 12 lb then	B					
Lime Sulfur (29%) 20 gal then	D.....	2.3 c	2.0 d	6.0 c	2.2 c	1.5 c
Lime Sulfur (29%) 20 gal then	A					
Kocide 2000 12 lb then	B					
Ziram 76 DF 8 lb .....	then D.....	5.3 c	1.6 d	8.8 bc	5.2 c	4.3 c

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

\*\* A = 5 Nov 02 (80% leaf drop), B = 23 Dec 02, C = 16 Jan 03, and D = 26 Feb 03 (delayed dormant).