Peach Leaf Curl

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Peach Leaf Curl is caused is by a fungus called *Taphrina deformans*. It infects both peach and nectarine trees. When you saw the curled deformed leaves on your peach or nectarine tree last spring, it was too late to treat the tree for the fungus. However, it will soon be the time to help prevent Peach Leaf Curl from infecting your tree this coming spring.

The Peach Leaf Curl fungus spores infect the trees through the bud scales, that's the protective sheath around a plant bud and it's fuzzy in texture. The spores also infect the shoots and leaves. In spring, when peach and nectarine buds open, the fungus spores produce germ tubes that penetrate the young leaves. The fungus develops thick walls as they grow in leaf cells and ultimately break through leaf tissue. Peach Leaf Curl appears two weeks after leaves emerge from their buds. Leaves become yellow, warty and curled. They swell and pucker, and the twigs become distorted. Fruit production is reduced and the surface of the skin on the fruit may develop cracks and cork-like bumps.

Peach Leaf Curl thrives between November and March when low temperatures are at about 48 degrees F and the highs are between 79 to 87 degrees F. Peach Leaf Curl prefers cool, wet weather. Optimum relative humidity for the fungus is 95 percent, very damp. The fungus specially thrives when the temperature is below 61 degrees Fahrenheit for 12 ½ hours for more than two days. Infection stops when young tissue is no longer developing or the weather becomes warmer and dryer.

There are no chemical or physical controls once the disease symptoms are evident. Diseased leaves will fall and be replaced by new healthy ones that will remain uninfected unless the weather continues to be cold and rainy. Nevertheless, rake up and dispose of all old and dropped leaves. If the tree is severely infected, consider thinning the fruit later in the season to give the tree a chance to recover. Also, plan to prune the tree in the fall to reduce the number of spores that will over winter and to use less fungicide when dormant spraying. Avoid overhead irrigation as this washes the fungi onto buds and new leaves and from leaf to leaf. Peach Leaf Curl can over winter in infected old leaves, bark and twigs.

Consider resistant peach varieties such as Indian Free, a cream-colored flesh freestone variety, Q 1-8, a white fleshed semi-freestone variety, or Muir, a yellow flesh freestone variety. Frost is another yellow freestone variety, but it must be sprayed with fungicide for the first 2 to 3 years. Kreibich is the only nectarine cultivar that is known to have shown resistance to Peach Leaf Curl.

Treating the trees with a fungicide remains the most effective method of controlling Peach Leaf Curl. Spray to kill the spores after there is at least 80% leaf drop, when the tree is dormant and again before the buds open. Spray only when no rain is in the forecast for at least 24 hours. Use

mixtures with liquid copper or liquid lime sulfur specifically formulated to treat Peach Leaf Curl. Be sure to carefully read and follow all label instructions.

Spray annually. Repeated infections of Peach Leaf Curl will cause defoliation and could cause the death of your tree. Leaves are very valuable to the life of your tree. They perform photosynthesis; this process turns sunlight, water and carbon dioxide into food energy for your tree.

For a more in depth discussion of Peach Leaf Curl, please see UC Pest Notes for Home and Landscape, # 7426. This publication and others like it can be downloaded at no charge from the University of California Statewide Integrated Pest Management Program (IPM) website at www.ipm.ucdavis.edu in the homes, gardens, landscapes and turfs section.

Next week, the Master Gardener article will focus on **Dormant Spraying**, with helpful tips on spraying techniques, equipment to use and fungicide solution preparation.

Tomorrow, Saturday, November 6, UCCE Master Gardeners will present a free class on "Bonsai". The class will cover basic and advanced bonsai techniques as well as a quick history of the roots of bonsai in the ancient Chinese art of penjing. The class starts at 9 a.m. and will be held in the Veterans Memorial Building at 130 Placerville Drive in Placerville.

Master Gardeners are available to answer home gardening questions Tuesday through Friday, 9 a.m. to noon, by calling (530) 621-5512. Walk-ins are welcome. The office is located at 311 Fair Lane in Placerville. For more information about our public education classes and activities, go to our Master Gardener website at http://ceeldorado.ucdavis.edu/Master_Gardener/.