



It's Time to Prevent Peach Leaf Curl

by Michelle Le Strange, UC Master Gardener Advisor Emeritus

Cold temperatures slow down many garden pest problems, but it is also a key time for gardeners to take action to prevent certain pests from becoming problems next spring. One of the most important of these preventative practices is application of dormant treatments for peach leaf curl. It is particularly important where we live because of the abundance of commercial peach and nectarine orchards in our area.

Peach leaf curl affects the blossoms, fruit, leaves, and shoots of peaches, ornamental flowering peaches, and nectarines, and is one of the most common disease problems for backyard gardeners growing these trees.

Caused by the fungus *Taphrina deformans*, peach leaf curl is a very serious disease. Its most distinctive symptom is distortion, thickening, and reddening of foliage as trees leaf out in the spring. Leaf symptoms appear about 2 weeks after leaves emerge from buds. The fungus grows between leaf cells and stimulates them to divide and grow larger than normal, causing swelling and distortion of the leaf. Red plant pigments accumulate in the distorted cells. Damaged leaves often die and fall off tree but will be replaced with new, usually healthy leaves once the weather turns dry and warmer. A leaf curl infection that continues untreated over several years will contribute to a tree's decline and reduce fruit production substantially.

To prevent peach leaf curl, peach and nectarine trees must be treated with preventive fungicides during the dormant season. The best time is after leaves have fallen, usually in late November or December. During a wet winter, a second application can be made just before buds swell. If the November/December treatment wasn't made, it can be applied in January or February as buds begin to expand.

Although gardeners won't notice the symptoms until spring, there is little that they can do at that time to reduce leaf curl. Treatment applied after trees leaf out or after symptoms appear won't be effective. Removing affected leaves or shoots will not reduce the problem. There are a few peach varieties that are resistant or partially resistant to leaf curl, but they are not commonly planted in the home orchard. These are Frost, Indian Free, Muir, and Q-1-8.



Key Products Discontinued

Two important fungicides traditionally used to treat peach leaf curl were withdrawn from the market on December 31, 2010.

- Lime sulfur (calcium polysulfide) was cancelled for backyard uses by the US EPA
- Tribasic copper sulfate (sold as Microcop by Lilly Miller) was discontinued by the manufacturer, but existing supplies can be sold and used.

As a result, the options for dormant treatments in backyard trees are limited and less than ideal. Copper ammonium complex (LiquiCop or Kop-R-Spray) is still available but is only 8% copper and significantly less effective than Microcop, which contained 50% copper. It becomes more effective if 1% dormant oil is added to the solution.

The fungicide chlorothalonil has been available and used for many years and is still effective. It is sold under several trade names (Daconil, Fung-onil, Ortho Garden Disease Control, etc.). Be sure to follow all safety precautions outlined on the label.

Bordeaux mixture, which gardeners can mix up themselves, is another alternative product to use, but most gardeners are not interested in spending extra time when only treating one or two trees. The ingredients include powdered copper sulfate in “bluestone” form and either hydrated lime (calcium hydroxide) or quick lime (calcium oxide). None of these ingredients are classified as pesticides, yet home gardeners should wear goggles, gloves, and a dust/mist filtering respirator, when they are working with hydrated lime and mixing up the solution.

The above article comes directly from two UC Pest Notes written by JC Broome and Chuck Ingels, Plant Pathology and Fruit Tree Farm Advisors, respectively, in Sacramento County. For more information about Peach Leaf Curl and Bordeaux mixture download the UC IPM Pest Notes on these topics available at: <http://www.ipm.ucdavis.edu/PDF/PESTNOTES/index.html>

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