Peach Leaf Curl

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Plant Disease Control

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Peach leaf curl is one of the most common and widespread diseases affecting peach plantings in the United States. Recognized as a common peach trouble since 1821, it occurs in almost every region where peaches are grown. It has been known by names such as, curly leaf, curly blight and leaf blister.

Although peach leaf curl is primarily a foliage disease, it also may affect blossoms, young twigs and fruit. The disease causes loss of foliage early in the summer. This stimulates the affected tree to produce another crop of leaves, resulting in decreased tree vigor. Lowered tree vigor usually increases the danger of winter injury.

Symptoms: Peach leaf curl is first noticed early in the spring when leaves start to unfold. Diseased leaves are noticeably red and soon become distorted, thickened and greatly curled as they develop. When diseased leaves are fully developed, they are lighter colored than normal, frequently flushed with red, and greatly curled, puckered and distorted (Figure 1).

Leaves infected with leaf curl are also thicker than normal leaves and have a firm and leathery consistency. The entire leaf or

Figure 1. Leaf symptoms of peach leaf curl. Notice the curling and puckering.
any portion of it may become infected. A few or nearly all of the leaves on a tree may fall, depending upon the severity of the attack. As the growing season advances, the upper surface of diseased leaves turns gray and develops a powdery appearance. Dry weather soon withers the leaves causing them to fall early. However, cool weather delays defoliation.

Young infected peach fruits become distorted and seldom remain on the tree very long. Infected fruits show irregular, swollen, colored areas on their surfaces. These areas are usually wrinkled, without the normal peach fuzz, and look like they have been polished.

Cause: Peach leaf curl is caused by the fungus *Taphrina deformans*. Spores of the fungus are produced on the surface of diseased leaves in midsummer and give the leaf the powdery appearance previously described. These spores are spread to all parts of the tree by winds and rains, becoming lodged under bud scales and rough bark, and here they remain throughout the summer and winter months. In the spring, when the young peach buds begin to swell, germinating spores of the fungus penetrate the young leaves, causing leaf curl infection.

Control: Peach leaf curl can be prevented by a single spray application made in late fall, after leaf drop, or in early spring, BEFORE bud swell. One of the following materials may be used; be sure to follow all label instructions.

A. Bordeaux mixture

Most commercial peach growers prefer to combine leaf curl control with the measures recommended for the prevention of scale insects. For this reason, a 6-6-100 Bordeaux mixture (6 pounds of copper sulphate, 6 pounds of spray lime in 100 gallons of water) combined with 3 gallons of dormant oil should be applied when the trees are strictly dormant. This practice will eliminate both the leaf curl fungus and scale insects.

When scale is not a problem, a dormant spray of 6-6-100 Bordeaux mixture combined with 2 quarts of dormant oil may be used. The addition of this small amount of dormant oil to the Bordeaux mixture acts as a spreader resulting in better coverage and more effective control.

Home fruit growers should substitute ready-prepared Bordeaux mixture, used at dormant strength, in place of the above.

B. Lime-sulfur

Liquid lime-sulfur, applied as a dormant spray, may be substituted for 6-6-100 Bordeaux mixture. It should be used at a strength of 5 gallons per 100 gallons of water. (This is the equivalent of 3/4 cupful in 1 gallon of water.) Use in spring only.

C. Ferbam

Ferbam may be substituted for the above materials at the rate of 2 pounds per 100 gallons (2 tablespoons per gallon of water) applied in the spring BEFORE buds swell.