

# Peach Leaf Curl (*Taphrina deformans*)

## Host/Site

Peaches, nectarines, apricots

## Identification/Appearance

Peach leaf curl is easy to identify. Emerging leaves develop a puckered texture with reddish spots. The ruffled texture progresses to thickening and severe, curled distortion. Affected leaves turn yellow or brown, eventually dropping. Symptoms can also be observed on twigs and blossoms, but leaves are the most obviously affected.

## Life Cycle

The two-phased life cycle of this fungal disease determines the opportunities for control. Fungal spores, seen as a white powdery deposit, will be produced on the surface of affected leaves. If the spores land on a suitable host such as a branch, they germinate, dividing rapidly and covering the shoot tips with spores that remain all season and overwinter on the tree. Next season as buds swell, the fungus germinates. Carried by water, it attacks the buds, forming thread-like structures that develop rapidly inside the leaves.

## Natural Enemies

None.

## Monitoring

Look for the distorted, discolored leaves as they emerge in spring. Defoliation will show in summer.

## Action Threshold

Although peach leaf curl rarely kills trees, it can cause a gradual decline in health and reduce yields. Treatment becomes more important if the disease has been increasing. If only a few leaves are affected, they can be removed without spray. Note that fungicide sprays should not be applied while the tree is in leaf, but rather delayed until late fall after dormancy.

## Cultural/Physical Controls

In general, peach and nectarine are difficult to grow productively west of the Cascades (an exception is the 'Frost' peach, which is resistant to peach leaf curl after the first 2 to 3 years). Better choices for fruit production include apple (Liberty, Prima, and Williams Pride), crabapple (Evereste and Red Jewel), Asian pear (Chojuro, Shinseiki,



Tree with leaves exhibiting peach leaf curl.  
Photo courtesy of WSU Cooperative Extension.

Yongi, Shinsui, and Ichiban), European pear, Italian plum, and persimmons. Cherries give minimal production west of the Cascades and have major pest problems.

The damage from Peach Leaf Curl can be minimized by reducing the amount of time the tree gets wet during the winter months. Keeping trees sheltered from rain during winter gives good control. WSU Mt. Vernon has successfully grown peaches under plastic shelters to control curl. Another approach is to grow dwarf peaches or nectarines in containers and move them into shelter, such as under a porch, in December and January. Both of these techniques require frequent monitoring for soil moisture and venting of the cold frames.

If growing peaches, remove affected leaves as soon as possible to avoid spread of spores. Carefully place in sealed bags and discard in garbage. Pruning affected shoots will also provide some control by reducing the total spore load. Peaches produce on new wood and should be heavily pruned each season.

## Biological Controls

None.

## Chemical Controls

Organic controls include copper fungicides (copper sulfate, Bordeaux mixture, or copper soap) and lime sulfur. Copper applications in the fall to early winter are directed at the twigs. Several applications in both December and January may be necessary. Note that even though copper and lime sulfur are organic controls, they are acutely hazardous to the user. Since copper levels can build up in soil under treated trees, the need for repeated treatment may be an indication that the tree should be replaced with a non-susceptible variety. Copper is also extremely toxic to fish.

## References

Smith, Timothy. *Peach Leaf Curl*.  
<http://www.ncw.wsu.edu/peachcurl.htm>

University of California Statewide Integrated Pest Management Project. *Leaf Curl: Home & Landscape*.  
<http://axp.ipm.ucdavis.edu/PMG/PESTNOTES/pn7426.html>



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