



Pest e-alerts



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Leaf Blister Diseases

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This spring, we've had several reports of leaf blister diseases caused by fungi in the genus *Taphrina*. The disease is called leaf curl or pockets on some hosts. As these fungi produce spore structures, they cause the leaves to pinch, deform, and blister (Fig 1). Usually, the affected area is a different color than the normal leaf color (Fig 2).



Fig 1. Two of the leaves on this flowering peach shoot show discoloration and deformation caused by peach leaf curl disease.



Fig 2. Several of the leaves on this peach shoot are damaged and discolored by peach leaf curl. Severe infections may result in premature defoliation.

The most common trees affected in Oklahoma are oak, peach and nectarine (Fig 3-4). It is possible that this problem could also occur on elm and plum leaves. Cool, wet weather is highly conducive for disease development, so I expect the problem will be widespread this spring.

OSU Fact sheet [EPP-7639 Leaf Curl of Peaches and Nectarines](#) was updated in April 2013, so confirm that you have the most recent version on hand in your office.



Fig 3. Normal oak leaf (top), symptoms of oak leaf blister (bottom). Disfigured areas may show both yellowing and browning.

Fig 4. Distorted areas on the underside of this oak leaf are due to oak leaf blister.



Ornamental trees seldom need treatment other than sanitation (rake up and discard fallen leaves). For fruit trees, the disease causes premature defoliation of affected leaves, and reduced yield. Therefore, fruit tree growers are encouraged to treat for leaf curl of peaches and nectarines. However, it is too late to treat the problem for the 2015 growing season. It may be helpful to treat with fungicides at leaf fall (Oct-Nov), for next season (2016). The primary time to treat is in early spring, from dormancy to bud swell.

This is a monocyclic disease which means the pathogen only causes one infection per year. Leaves are infected only during bud swell and opening. Registered fungicides are listed in the E-832 Extension Agents' Handbook of Insect, Plant Disease and Weed Control, but generally contain copper hydroxide or sulfur. If fungicides are used after bud swell, they will be ineffective to control this disease. However, fungicide applications are recommended for control of other diseases such as brown rot and bacterial spot. Growers that desire high quality fruits should review the Home or Commercial Fruit Spray guide in the Extension Agent's Handbook for recommendations throughout the growing season.

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