

Entomology and Plant Pathology, Oklahoma State University 127 Noble Research Center, Stillwater, OK74078 405.744.5527

Vol. 14, No. 16

http://entoplp.okstate.edu/Pddl/

Apr 21, 2015

Leaf Blister Diseases

Jen Olson, Plant Disease Diagnostician

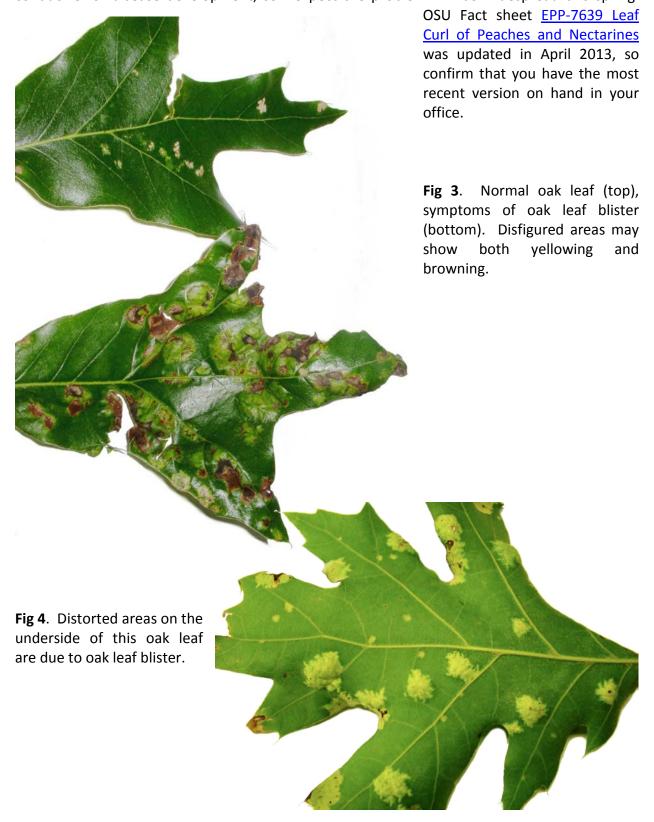
This spring, we've had several reports of leaf blister diseases caused by fungi in the genus *Taphrina*. The disease is called leaf curl or pockets on some hosts. As these fungi produce spore structures, they cause the leaves to pinch, deform, and blister (Fig 1). Usually, the affected area is a different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



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

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

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.



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.

Dr. Richard Grantham - Director, Plant Disease and Insect Diagnostic Laboratory

The pesticide information presented in this publication was current with federal and state regulations at the time of printing. The user is responsible for determining that the intended use is consistent with the label of the product being used. Use pesticides safely. Read and follow label directions. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, and Title IX of the Education Amendments of 1972 (Higher Education Act), the Americans with Disabilities Act of 1990, and other federal and state laws and regulations, does not discriminate on the basis of race, color, national origin, genetic information, sex, age, sexual orientation, gender identity, religion, disability, or status as a veteran, in any of its policies, practices or procedures. This provision includes, but is not limited to admissions, employment, financial aid, and educational services. The Director of Equal Opportunity, 408 Whitehurst, OSU, Stillwater, OK 74078-1035; Phone 405-744-5371; email: eeo@okstate.edu has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity. Any person (student, faculty, or staff) who believes that discriminatory practices have been engaged in based on gender may discuss his or her concerns and file informal or formal complaints of possible violations of Title IX with OSU's Title IX Coordinator 405-744-9154.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources.