

LOUISIANA PLANT PATHOLOGY

DISEASE IDENTIFICATION AND MANAGEMENT SERIES



Oleander Leaf Scorch

Xylella fastidiosa Wells et al.

Oleander (*Nerium oleander* L.) is an evergreen shrub native to the Mediterranean region and Southeast Asia. Despite being poisonous, it is a popular ornamental plant for use in landscapes, gardens, parks, roadsides and highway medians. Oleander leaf scorch (OLS) is a deadly disease of oleander that was first reported in California in the early 1990s. Since then, OLS has been found across the southern United States and was recently reported in Louisiana.

OLS is a bacterial disease caused by *Xylella fastidiosa*. Different strains of this bacterium are known to cause several economically important diseases, including Pierce's disease of grapevine, plum leaf scald and leaf scorch of almond, coffee, pear, pecan, oak and several other landscape trees. The bacterium resides in the xylem vessels (water-conducting channels) of the plant, where it multiplies and blocks these channels and eventually obstructs the flow of water and nutrients within the plant. The bacterium is transmitted and spread by xylem-feeding insects, such as sharp shooters, leaf hoppers or spittle bugs.

Symptoms of oleander leaf scorch include chlorotic mottling of the leaves that starts from the tips and margins and progresses toward the midribs (Figure 1). As disease develops, leaf tips and margins become necrotic (Figure 2). Severely infected plants defoliate and die (Figure 3).

No chemicals are currently available to manage oleander leaf scorch. Cultural practices that improve plant vigor, such as proper watering and fertilization, may help infected plants live longer. Pruning symptomatic branches will not save the plant. Detection and removal of infected plants at early stages may help reduce subsequent spread of the pathogen.

Symptoms of OLS are often attributed to other causes, such as salt injury or water and heat stress. Positive diagnosis requires specialized testing of infected plants. The LSU AgCenter Plant Diagnostic Center is equipped to diagnose this disease. Visit our website (www.lsuagcenter.com/plantdiagnostics) to find information on submitting samples.



Figure 1. Chlorotic mottling of leaves.



Figure 2. Necrosis of leaf tips and margins.



Figure 3. Severely infected oleander plant.

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