

Citrus Greening (or Huanglongbing)

Citrus greening is one of the most serious citrus diseases, and a pest responsible for spreading it has now been found in Louisiana.

Citrus greening is caused by a bacterium that can infect most citrus



Figure 1

varieties and some ornamental plants. It was first detected in the United States in August 2005 in South Florida and was detected in South Louisiana in June 2008. The disease has seriously affected citrus production in India, Asia, Southeast Asia, the Arabian Peninsula and Africa. Transmitted primarily by an insect called the Asian citrus psyllid, the disease could seriously impact the citrus industry and residential and ornamental plantings in Louisiana .

Identification of Citrus Greening and the Asian Citrus Psyllid

1. Foliage: Early symptoms are small, yellowed leaves on one limb or a section of the tree canopy. The most characteristic symptoms of citrus greening are blotchy mottling of the leaves (Fig. 1) and leaf yellowing (Fig. 2). Other symptoms are yellowed shoots, twig dieback, poor flowering and stunting.



Figure 2



Figure 3



2. Fruit: Fruit are small, poorly colored and/or lopsided (Fig. 3). Fruit from trees affected by citrus greening taste bitter, medicinal and sour. Seeds usually abort, and fruit set (formation) is poor. Symptoms vary according to time of infection, stage of the disease, tree species and tree maturity.

3. Insect Vector: The Asian citrus psyllid (*Diaphorina citri*) is the insect most closely associated with the spread of citrus greening. Figure 4 depicts an adult (2-3 mm in length) and Figure 5 shows a nymph (1-2 mm in length). Figure 6 shows an Asian citrus psyllid adult sitting on a metric ruler. The length of the body and wings is about 3 mm.



Figure 4



Figure 5



Figure 6

Photo credits: Figures 1 and 3 were taken by Xiaoan Sun, Ph.D., Florida Department of Agriculture and Consumer Services. Figures 2, 4, 5 and 6 were taken by Natalie Hummel, Ph.D., Department of Entomology, LSU AgCenter. All photos are reproduced by permission.

To learn more about citrus greening, please visit our Web sites
www.lsuagcenter.com
 or
www.ldaf.state.la.us
 or
www.aphis.usda.gov/ppq/ep/citrus_greening/index
 or
www.doacs.state.fl.us/pi/chrp/greening/citrusgreening.html.

Louisiana State University Agricultural Center
 William B. Richardson, Chancellor

Louisiana Agricultural Experiment Station
 David J. Boethel
 Vice Chancellor and Director

Louisiana Cooperative Extension Service
 Paul D. Coreil
 Vice Chancellor and Director

Pub. 3080 (10M) 7/08

The LSU AgCenter provides equal opportunities in programs and employment.

Louisiana Department of Agriculture & Forestry
 Mike Strain DVM, Commissioner

United States Department of Agriculture
 Animal and Plant Health Inspection Service
 Program Aid No. 1850
 July 2008

