



Citrus canker

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ABOUT THE STUDY

Citrus canker, a contagious plant disease caused by the bacterium *Xanthomonas citri* subsp. *citri* (syn. *X. axonopodis* subsp. *citri*), can cause severe damage to all citrus cultivars and some citrus relatives. The disease is not a risk to human or animal health but makes fruit unsightly and unmarketable.

SYMPTOMS

The bacterium grows and multiplies in diseased plant parts all aboveground parts of the citrus tree are susceptible. Citrus canker causes premature leaf and fruit drop, twig dieback, general decline, and blemished fruit. Blister-like lesions on leaves and fruit start small and expand as the disease progresses. These lesions may darken to tan or black and develop a water-soaked margin with a yellow halo surrounding it. The center of the lesion on leaves as well as on stems and twigs can appear raised and corky or scabby, surrounded by a water-soaked margin. Mature lesions on older symptomatic leaves may have a shot-hole look and these lesions eventually die and fall out.

CONTROL

Since there is no cure for the bacterium, prevention is the best approach to managing citrus canker. Exclude the pathogen from areas it is not known to exist by buying plants, bud wood, and seedlings only from TDA-certified citrus nurseries. Implement TDA regulations before moving citrus materials (including budwood, seedlings, and fruit) within or outside of the state. Use good sanitation practices to reduce potential disease spread. Practice general cleanliness and use alcohol-based sanitizers, bleach solution, and antibacterial soap solutions to decontaminate equipment and tools and reduce the risks associated with human and mechanical transmission of the disease.

Remove and destroy diseased plants to eliminate potential bacteria for future infections. Monitor nearby citrus plants. If new infections appear, take action swiftly. TDA regulations require disposal of infected tree and plant material by burning or bagging and burying it at least 2 feet deep at a municipal landfill.

However, we have observed the first symptoms as late as August and September. Infection of leaves by conidia takes place most frequently at 68-77°F, and symptoms are present within 8 days of inoculation. Defoliation begins about 2 weeks after the symptoms appear.

PREVENTION

Plant protection chemicals that contain copper can help prevent infection. These products reduce risks but do not stop the disease from occurring or cure affected trees. Application timing is critical to provide protection. New, growing tissues are the most susceptible to infection. Multiple applications may be needed to ensure proper coverage on the plant. Proper chemical use and rates are available on the product label. Always read all directions and labels before using any chemical control agent.

MANAGEMENT

Streptomycin sulphate 500-1000 ppm; or Phytomycin 2500 ppm or Copper oxychloride 0.2% at fortnight intervals. Control leaf miner when young flush is produced. Prune badly infected twigs before the onset of monsoon.