



Citrus Canker

Canker is a highly contagious, bacterial disease that attacks citrus. Although it is one of citrus' most serious maladies, it doesn't harm people or animals. The three strains of canker are Asian, B and C. The Asian form of canker is the most virulent (infective).

Asian-strain symptoms are brown raised lesions surrounded by an oily, water-soaked margin and a yellow ring or halo. Old lesions on leaves may fall out, creating a shot-hole effect. Twig symptoms show as slightly raised, tan, dead tissue surrounded by dark oil water-soaked margins. Canker can attack any part of the tree including the leaves, fruit, branches or trunk. Infected trees are weakened, causing leaves to drop, the tree to die back and fruit to drop prematurely.

Canker is found in many parts of the world where citrus is grown such as Africa, Asia and South America. **The disease was most likely brought to the U.S. on infected fruit or plant material from an infected area outside the country.**

Growers must abide by the Citrus Health Response Plan. The plan requires that all growers register citrus production sites by signing the *Commercial Citrus Grove and Caretaker Compliance Agreement*. The Agreement specifies the requirements for grove survey, disease management, decontamination and other issues. A key component of any plant pest and disease eradication or control program is surveillance. The growers must survey their grove for canker and other pests. Decontamination is essential to control the spread of citrus canker as well as other citrus pests and diseases. Canker management will be the responsibility of the grower/caretaker based on best management practice guidelines put forth by the appropriate State Extension personnel.

Groves which are affected face serious risks. The growers are faced with potential loss of investment. On average the loss of harvestable oranges due to citrus canker, will equal 335 boxes/acre. The average harvest of healthy trees will equal 389 boxes/ acre. The average price of oranges is \$3.00/ box. The growers are also faced with additional management costs. The average cost of implementing the best management practices outlined in the *Commercial Citrus Grove and Caretaker Compliance Agreement* is \$180/acre.

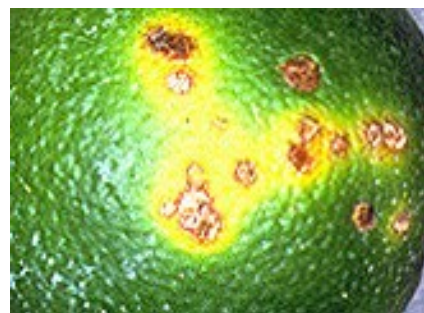
A quarantine zone is established to prevent growers from spreading the disease by moving fruit out of an infected area to other uninfected citrus-producing areas. Because growers must transport their fruit to packing houses and processing plants to sell it, the quarantine essentially prevents them from getting paid.

The diseased fruit could still be used for juice because citrus pulp is too acidic for the bacteria to survive. The appearance alone of canker would prevent the sale of diseased fruit on the fresh market where it's worth more than if it were sold for juice.

If countries, to which Florida exports citrus, ban Florida citrus because of canker, which has happened in the past, growers can lose the market for an entire crop, which means they don't get paid for that season.

For more information on canker visit:

<http://www.freshfromflorida.com/pi/canker/faqs.html>





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Group Members' Names _____

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State and federal agriculture officials have confirmed the Asian strain of citrus canker in a citrus tree located in a 10-acre orange grove. A total of area of 2 acres of citrus is assumed to be exposed and under quarantine due to citrus canker. Based on the information in the handout answer the following questions

How many boxes of oranges will not be harvestable due to Citrus Canker?

How much money would you have made from these boxes?

How many harvestable boxes of oranges will you harvest?

How much money will you make from these boxes?