Citrus canker

Plant Health AUSTRALIA

What is citrus canker?

Citrus canker is a serious disease of citrus and is caused by the bacterium *Xanthomonas citri* subsp. *citri* (also known as *X. axonopodis* pv. *citri*, and *X. campestris* pv. *citri*). Citrus canker infects a plant through wounds and natural openings on leaves, stems, thorns and fruit. The disease presents as lesions or cankers at infection sites and severely impacts fruit quality and yield. Symptoms are exacerbated by injury caused by feeding activity of the citrus leaf miner (*Phyllocnitis citrella*), the larvae of a small moth widely distributed in Australia.

What should I look for?

The characteristic symptom of citrus canker is the formation of lesions on above-ground parts of citrus such as the leaves, stems, thorns and fruit. The lesions are initially tiny pin-point blemishes that are tan in colour and transition to brown or grey. Lesions expand over time to a maximum size of approximately 2-10 mm in diameter and become thick and spongy. Lesion margins have a watery or oily appearance, and on leaves and fruit, are surrounded by a yellow halo. Premature fruit drop can also occur, along with defoliation, twig dieback and general tree decline. In severe cases citrus canker can lead to tree death. The disease is more obvious and severe in tropical and subtropical areas or in the presence of the citrus leaf miner.

What can it be confused with?

Citrus canker could be confused with the disease lemon scab (*Elsinoe fawcettii*) which occurs in coastal areas of Australia, however, lesions of lemon scab are drier than those of citrus canker and lack the characteristic yellow halo. Citrus bacterial spot (*Xanthomonas alfalfae* subsp. *citrumelonis*), which is currently present in the USA (Florida), also has similar leaf symptoms to citrus canker; however, the lesions are flat and rarely form on citrus fruit.

Cankers on citrus fruit surrounded by yellow halo

Florida Department of Agriculture and Consumer Services, Division of Plant Industry Archive, Bugwood.org

Citrus canker infected fruit, stems and leaves

Timothy Schubert, Florida Department of Agriculture and Consumer Services, Bugwood.org

Thick and spongy lesions of citrus canker

Jeffrey W. Lotz, Florida Department of Agriculture and Consumer Services, Bugwood.org

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Tree stem infected by citrus canker

M. Goto, Bugwood.org

Citrus canker lesions on a leaf

Florida Department of Agriculture and Consumer Services, Division of Plant Industry Archive, Bugwood.org

How does it spread?

Citrus canker can be spread rapidly over short distances, particularly in tropical and subtropical climates, through water splash caused by wind-blown rain or even by overhead irrigation systems. Long distance spread occurs through flooding, cyclones, or through human assisted movement of infected plant material or equipment. While citrus canker is exacerbated by leaf miners, the leaf miner is not a vector of the disease.

Where is it now?

Citrus canker is present throughout Asia and South America, on some islands in the Pacific and Indian Oceans, as well as some parts of the Middle East and in the USA (Florida).

How can I protect my orchard from citrus canker?

Ensure propagation material is purchased from suppliers that source their budwood from Auscitrus. Check your orchard frequently for the presence of new pests and investigate any sick plants for unusual symptoms. Make sure you are familiar with common citrus pests so you can tell if you see something different. Keep records of anything unusual and ensure that all staff and visitors adhere to orchard biosecurity and hygiene practices.

IF YOU SEE ANYTHING UNUSUAL, CALL THE EXOTIC PLANT PEST HOTLINE

1800 084 881

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