

Citrus canker is a highly damaging plant disease of citrus crops caused by the bacterium *Xanthomonas citri* subsp. *citri*.

<p>Impact</p>	<p>Infection decreases fruit quality and yield. Leads to defoliation, twig dieback, blemished fruit and premature fruit drop. In severe cases, can cause tree death.</p>
<p>Symptoms</p> <p>Young plants and seedlings are more susceptible.</p> <p>The canker lesions can develop within seven days of infection on leaves, up to 90 days on fruit after petal fall.</p>	<p>Small, round blister-like formations on leaves, branches, stems, new shoots and fruit.</p> <p>On leaves, bright yellow spots on the underside of the leaf occur first followed by raised brownish lesions on both sides of the leaves. These then become rough, cracked and corky. The canker may be surrounded by a water-soaked yellow or chlorotic halo.</p> <p>On fruit, crater like lesions form on the surface surrounded by oily, water soaked margin or yellow halo, which can expand to 10mm. They may be scattered or several lesions can occur together in an irregular pattern. In young fruit an ooze of a resinous substance may be observed.</p> <p>On stems and branches, lesions are light to dark brown, raised and corky, that eventually become dry and scabby. They can vary in size from 5 to 10mm. The appearance of symptoms on stems often indicates infection for a long time.</p> <div data-bbox="328 1104 707 1355">  </div> <div data-bbox="722 1104 1101 1355">  </div> <div data-bbox="1117 1104 1500 1355">  </div>
<p>Spread</p>	<p>The canker lesions ooze bacteria when wet, which can infect new growth, and be dispersed over short distances through wind, rain splash and overhead irrigation.</p> <p>Long distance spread can occur through flooding and cyloes, and human assisted movement of clothes, equipment and infected plant material (including budwood, rootstock seedling, budded trees).</p> <p>Plants are infected when bacteria or bacteria spores enter wounds and natural openings on leaves, growing shoots and fruit. The disease can be spread by birds, insects and humans, particularly when trees are wet.</p> <p>The bacteria can survive in diseased plant tissue as well as in soil. It can over-winter in angular shoots, and then become active again the following season.</p>
<p>Hosts</p>	<p>Affects some Rutaceous plant species, particularly citrus such as lime, lemon, mandarin, orange, grapefruit, tangerine and their hybrids as well as some non citrus plants.</p>
<p>Distribution</p>	<p>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).</p> <p>There have been several outbreaks in Australia: in the Northern Territory in 1912, 1991 and 1993 and Queensland in 2004. All were successfully eradicated.</p>