Citrus leprosis virus (leprosis) is an exotic plant pest
This disease is a serious threat to Australia’s citrus industry
Please report suspect symptoms promptly to the Exotic Plant Pest Hotline 1800 084 881

Leprosis

Leprosis is a disease of citrus plants. Leprosis is caused by the citrus leprosis virus and is vectored by false spider mites.

Leprosis is characterised by localised lesions in leaves, twigs and fruit. The lesions do not expand in size or spread as each lesion is the plant’s response to the insect vector feeding on it.

Leprosis is a plant disease of citrus and is not harmful to people or animals.

Description

Localised leprosis lesions are found on fruits, leaves and twigs. The severity of symptoms varies with the type of citrus.

Leaf lesions are usually round, dark brown in colour, 2 to 3 mm in diameter and surrounded by a chlorotic halo in which one or two brownish rings may appear (Figure 1). The overall lesion size varies from 10 to 20 mm.

Fruit lesions are round, dark brown dead spots 10 to 20 mm in diameter on the skin (Figure 2). Gum exudation is occasionally seen on the lesion.

On green unripe fruit the lesions are initially yellow, but become more brown or black over time. Green fruit lesions may appear sunken.
Stem lesions are grey or brown in colour and may be raised above the surface of the stem (Figure 3). Stem lesions may appear to be joined together when vectors are present in large numbers. Death of the twig may occur. In extreme cases severe defoliation and fruit fall may occur.

Leprosis leaf symptoms may be confused with pesticide injury or insect damage. Fruit symptoms may be confused with citrus canker (*Xanthomonas citri* subps. *citi*). Both citrus leprosis virus and citrus canker are exotic plant pests not present in Australia.

On the trunk on an infected citrus tree, leprosis bark scaling symptoms may appear similar to citrus psorosis virus (bark scaling) which is present in Australia. The psorosis virus causes wood staining while leprosis does not.

**Actions to minimise risks**

Put in place biosecurity best practice actions to prevent entry, establishment and spread of pests and diseases:

- practice “Come clean, Go clean”
- ensure all staff and visitors are instructed in and adhere to your business management hygiene requirements
- source propagation material of a known high health status from reputable suppliers
- monitor your plants and fruit regularly
- keep records

**Reporting**

If you suspect leprosis:

Call the Exotic Plant Pest Hotline on 1800 084 881

Take photos not samples to report and minimise the risk of spreading this disease

Email clear photos with a brief explanation and contact details to biosecurity@dpi.nsw.gov.au

**An exotic plant pest** is a disease causing organism or an invertebrate not present in Australia and which threatens agricultural production, forestry or native and amenity plants.

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**Damage**

Fruit with leprosis lesions has low commercial value especially for fresh consumption.

**Host range**

Leprosis is primarily found on sweet oranges (*Citrus sinensis*).

Lemons (*C. lemon*), grapefruit (*C. paradisi*) mandarins (*C. reticulata, C. reshni, C. deliciosa*) and citrus hybrids are susceptible to leprosis.

**Spread**

Citrus leprosis virus is vectored by false spider mites in the genus *Brevipalpus*.

False spider mites are found throughout the world including Australia.

All life stages of the mite are able to transmit citrus leprosis virus. Newly hatched mites must feed on an infected plant in order to acquire the virus.

Citrus leprosis virus does not move systemically within the host plant. Each lesion is associated with the vector mite feeding on the host plant.

**Distribution**

Leprosis is reported from the Central and South American countries of Argentina, Brazil, Colombia, Uruguay, Panama, Honduras, Guatemala, Costa Rica, Nicaragua, El Salvador and Mexico.

Leprosis was eradicated from Florida and is considered an exotic disease throughout the United States.