

## Frequently asked questions - Industry

### What is citrus canker?

Citrus canker is a contagious disease of citrus (and some other plant species of the Rutaceae family) caused by the bacteria *Xanthomonas citri* subsp. *citri*. Infected trees display unsightly lesions which can form on leaves, fruit and stems.

All citrus crops can be affected by citrus canker. This includes lime, lemon, citron, mandarin, orange and grapefruit. A full list of plants affected can be found in the [Quarantine Areas Notice](#).

Citrus canker does not affect human health, animals or other plants, and infected fruit remains safe to be consumed.

Trees infected with the disease may suffer from low vigour and a reduction in fruit quality and quantity. Citrus canker is a serious disease impacting on citrus production and is the subject of a number of control and eradication programs around the world.

Citrus canker has previously been found in Australia, however it has been eradicated each time.

### What does citrus canker look like?

Small, round blister-like formations can be found on leaves, branches, stems, new shoots and fruit.

- 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.
- 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.
- On stems and branches, lesions are light to dark brown, raised and corky, that eventually becomes 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.

Young plants and seedlings are more susceptible. The canker lesions can develop within seven days of infection on leaves, up to 90 days on fruit after petal fall.



## **How did citrus canker arrive in Western Australia?**

In Western Australia, citrus canker has been detected on three premises in the State's north. These detections are all linked to plants imported from the Northern Territory.

All available evidence indicates that citrus canker is restricted to potted plants in the home and garden sector. Surveillance of citrus production areas so far, has not detected the disease in any citrus orchards.

A nationally coordinated response to citrus canker is progressing, with on-ground response teams in place in the Northern Territory (NT) and Western Australia (WA).

WA and NT have put movement controls and quarantine measures in place to contain the disease.

## **Does it affect all citrus plants?**

Citrus canker is a contagious disease caused by the bacteria *Xanthomonas citri* subsp. *citri* which can affect all citrus plants including lime, lemon, citron, mandarin, orange and grapefruit.

## **How long do the bacteria survive?**

Inoculum remains in the lesions of host plants from year to year, and are the primary source of new infections. The disease can remain in infected fallen plant material and become active again in periods of high rainfall and warm weather.

Exposed bacteria may survive for a short time in soil. However, it may be able to survive on plant debris that has been incorporated into soil for a few months.

## **How does the disease spread?**

The canker lesions ooze bacteria when wet, which can infect new growth, and be dispersed over short distances through rain splash and overhead irrigation. In rain storms, bacteria can be carried for longer distances between trees by wind-driven rains.

Long distance spread can occur through flooding and cyclones, and human-assisted movement of infected plant material (including budwood, rootstock seedling, budded trees), clothes and equipment.

Plants are infected when bacteria 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.

## **Movement restrictions in Quarantine Areas**

### **What Quarantine area restrictions are in place to stop the spread?**

On 12 June 2018, the department made amendments to the Quarantine Areas Notice that was published on 1 June 2018. These Quarantine Areas were initially declared following the confirmed detection of citrus canker. The aim of declaring these Quarantine Areas is to reduce the risk of the disease spreading. The Quarantine Areas cover a 50km radius from both the Kununurra post office and the Wyndham post office.

Included in the amended Quarantine Areas Notice are Restricted Areas and Control Areas, which clarify restrictions on the movement of citrus canker host plants and fruit. Restricted

Areas have been declared around the three premises which have been found to have infected plants.

### **What restrictions apply to the Restricted Areas?**

If your property is located in a Restricted Area, you can't move citrus plants or fruit into, out of, or within the area. This restriction also applies to machinery, equipment or soil which is used in association with citrus plants.

Propagation and planting of citrus canker host plants within Restricted Areas also is not permitted.

The only exception to this is fruit or juice for human consumption which has been imported from outside a Control Area. In other words, you can still buy citrus fruit and juice from retail outlets and take it into a Restricted Area if it has come from outside a Control Area.

If your property is in a Restricted Area you will receive more information about the restrictions and any additional action the department may take to ensure citrus canker doesn't spread. If you have any questions, you can contact the department's Pest and Disease Information Service on 9368 3080.

### **What restrictions apply to the Control Areas?**

Citrus canker host plants and parts of those plants, including fruit, are permitted to be moved within and into Control Areas, but they can't be moved out of the Control Areas. This restriction also applies to machinery, equipment, soil and potting mix which is used in association with citrus plants.

### **Can I still sell my citrus fruit and juice in the Control Areas?**

You can still sell fruit and juice for human consumption in a Control Area. This fruit and juice can be moved within the Control Areas and into Restricted Areas, provided it has come from outside the Control Areas. However, it can't be moved out of either a Control Area or a Restricted Area.

### **What can I do to stop the spread of citrus canker?**

Growers can help stop the spread of citrus canker by following the movement restrictions in the Restricted Areas and the Control Areas.

Citrus canker is declared a prohibited organism under section 12 of the Biosecurity and Agriculture Management Act 2007. Any suspect detection must be reported.

For growers, some simple on-farm biosecurity measures to reduce the risk of spread include:

- **Monitoring your orchard regularly** and keep written and photographic records of any unusual observations. Be aware of the serious exotic pests of citrus and the symptoms they cause.
- **Report anything unusual** to DPIRD's Pest and Disease Information Service.
- **Use pest-free propagation material** from reputable sources that are fully tested and pest-free. Keep good records that allow full traceability of propagation material.

- **Manage produce carefully.** Maintain good hygiene when dealing with fruit and fruit by-products and dispose of waste fruit and plant material carefully. Ensure that Quality Assurance schemes and orchard records allow full traceability of produce.
- **Manage people movements.** Use orchard biosecurity signs to direct all visitors to notify you of their presence, record visits and make sure visitors have clean footwear and clothing.
- **Reduce risks posed by vehicles and equipment** Direct all visitors to park in a designated parking area. Ensure that all machinery and vehicles that enter and exit production areas are clean. A wash-down facility provides good protection.

### **Will my orchard be inspected?**

DPIRD will be conducting surveillance of all commercial citrus orchards in the Control Areas for citrus canker symptoms. All host plants will be examined visually and samples collected from any plants displaying suspect symptoms.

### **What happens if citrus canker is found in my orchard? Will my orchard be destroyed?**

Pest Control Notices (PCN) requiring movement controls and other measures for host plants or potential carriers may be issued in relation to a place found to be infected or suspected to be infected. These measures are intended to control the spread of Citrus canker.

Infected properties will have citrus canker host plants destroyed and be subject to other measures as outlined in the Pest Control Notice.

### **Will I be reimbursed?**

Actions taken on premises for the purposes of eradication or prevention of spread of citrus canker during the Response may be eligible for Owner Reimbursement Costs (ORC) where the relevant provisions of the Emergency Plant Pest Response Deed (EPPRD) are met. A copy of the EPPRD can be found at <http://www.planthealthaustralia.com.au/wp-content/uploads/2018/04/EPPRD-6-April-2018.pdf>

The Department of Primary Industries and Regional Development and the Northern Territory Department of Primary Industry and Resources are working towards appointing an independent assessor to validate any ORC claims that are made. Assessment will be subject to providing supporting evidence of costs and losses claimed to have been incurred by an owner of an eligible business. Evidence frameworks have been nationally agreed for particular industries under the EPPRD and will be used by the assessor to determine applications for ORCs. The evidence frameworks can be found at <http://www.planthealthaustralia.com.au/biosecurity/incursion-management/owner-reimbursement-costs/>

DPIRD is working with growers to assist with preliminary data collection that may be relevant for the assessor. Data collected by DPIRD or the independent ORC assessor will be kept confidential and not used for other purposes outside of this response.

Owners of eligible businesses are those represented by an industry organisation that is a signatory to the EPPRD. In the context of the citrus canker response, this means commercial producers represented by Citrus Australia Ltd and Nursery and Garden Industry Association Ltd (NGIA). Citrus Australia represents producers of crops listed in Schedule 7 of the EPPRD and NGIA represents production nurseries only.

## **Are there any trade implications?**

### **Within the QA:**

Movement restrictions within the QA are outlined above.

Protocols have now been agreed upon at a national level that will allow for the movement of commercially produced citrus fruit within the Control Area to outside the Quarantine Area while preventing the spread of citrus canker. Fruit from within the Restricted Area is not permitted to move.

### **Outside the QA:**

There are no international trade implications at this time but the Australian Department of Agriculture and Water Resources will work with trading partners should any issues arise.

## **How do I report Citrus Canker?**

You can report via app, phone or email to the Department of Primary Industries and Regional Development:

- Download the [MyPestGuide Reporter app](#) available from the Google Play or the App Store or MyPestGuide [online report](#).
- Email photos with your name, address and mobile number to [padis@dpiird.wa.gov.au](mailto:padis@dpiird.wa.gov.au)
- Alternatively, call the Pest and Disease Information Service on 08 9368 3080

## **Where can I get further information?**

For the latest information on citrus canker visit [agric.wa.gov.au/citruscanker2018](http://agric.wa.gov.au/citruscanker2018)