

Biosecurity Advice Update

Pest

Xanthomonas citri Citrus Canker

Date

18 July 2018

Location

Northern Territory and Western Australia

Situation overview

- The nationally coordinated response to citrus canker (*Xanthomonas citri* subsp. *citri*) is progressing, with on-ground response teams in place in the Northern Territory and Western Australia.
- There are still a limited number of infected premises, with nine in the Northern Territory and three in northern Western Australia.
- All available evidence indicates that citrus canker is restricted to potted plants in the home and garden sector. Citrus canker has not been detected in any citrus orchards. This has been determined through recent surveillance in citrus production areas.
- All infected premises are linked to a single source premise in Darwin. We have been able to trace plants that have left this source property, which is providing us with some level of confidence in being able to find potentially infected plants.
- Testing for the strain of citrus canker has been undertaken and more investigations are underway.
- Tracing information has been shared with all other jurisdictions, and quick action was taken to follow up on this tracing information, including inspections and thorough diagnostic testing.
- Because of these activities, citrus canker has not been detected in any other mainland states, including the ACT or Tasmania.
- The Northern Territory and Western Australia have put movement controls and quarantine measures in place to contain the disease.
- Other jurisdictions have introduced domestic movement controls to prevent the entry of citrus canker hosts and carriers, plants and plant material, soil, equipment and machinery, from control areas in the NT and WA. However, stringent measures are in place to allow for the safe interstate trade of fruit.
- A nationally agreed response plan is in place. This plan was developed in line with national arrangements, with technical advice provided by the Consultative Committee on Emergency Plant Pests. The plan was endorsed by the National Management Group (NMG) in June. Affected industry groups are represented in both the consultative committee and NMG.
- Two specialist working groups are now in place to assist with the national citrus canker response strategy.

1. A Response Strategy Working Group will provide advice on risk-based response activities which forms the basis of the response plan to eradicate citrus canker from Australia.
 2. A Tracing Working Group is working on harmonising tracing procedures and analysis being undertaken across jurisdictions. This group is critical to targeting the response activities to areas of disease risk and ultimately will provide the confidence to declare that the disease is no longer present in Australia.
- Citrus canker does not affect human health, animals or other plants, and infected fruit remains safe to be consumed.
 - Further information about citrus canker and the national response activities can be accessed through the Outbreak website: outbreak.gov.au.

Citrus bacterial spot disease

- The Northern Territory has developed a report, providing a detailed analysis of citrus bacterial spot disease in Northern Territory.
- The report shows that samples collected between 2005 and 2017 have been confirmed as citrus bacterial spot and not citrus canker.
- Citrus bacterial spot and citrus canker are different diseases.
- Current evidence suggests that citrus bacterial spot is not economically important and poses a negligible risk to Australia's plant health, industries or economy.
- The report has been provided to the Consultative Committee on Emergency Plant Pests (CCEPP), to consider if any further action on citrus bacterial spot is required.
- Australia is currently able to claim the absence of all types of citrus cankers. This is because the current incident in the NT and WA is under an official national eradication program. This is important in terms of maintaining access to export markets for our citrus industry.

Tracing, surveillance and testing

- Most of citrus canker infections have been found on three different varieties of lime.
- Thorough testing has indicated that this is a new incursion. We now know that this current incident is not the re-emergence of citrus canker from a previous outbreak. =
- At 17 July 2018 surveillance has been conducted on 702 premises in the Northern Territory, and 400 in Western Australia. This surveillance has shown infected plants remain limited to those supplied from a single premise in Darwin. There has been no spread from these infected plants to other host plants.
- The other states have also conducted surveillance and testing because of the tracing information they received from the NT. In total around plant 7,000 traces have been investigated across Australia, and no canker has been found.
- The premises that have been surveyed included retail outlets, residential properties, and production nurseries. There are no traces to commercial citrus orchards, however, they have also been inspected as a precaution.
- Between the NT and WA, more than 12,000 plants have been destroyed, and disposed of in accordance with the agreed response strategy for citrus canker.

Imports/PEQ

- Only budwood material for use as nursery stock can be imported to Australia. This material must go into the Australian government's Post-Entry Quarantine facility for a minimum of 24 months and is subject to screening and testing for plant pathogens.
- Plants are regularly inspected for citrus canker. During growth in quarantine, plants are subject to disease elimination treatments, and only shoot tip grafted plants free of diseases, are released from biosecurity control.
- Since January 2013 there have been 23 permits issued for the import of nursery stock. There were no detections of citrus canker during the disease screening period.

Biosecurity and reporting

- As a precautionary measure, we are asking people with citrus plants to check them for signs of citrus canker. Plants that were purchased within the last 12 months are of concern. Images of citrus canker symptoms and further information can be found at www.outbreak.gov.au .

Advice for growers

- Growers should put on-farm biosecurity measures in place, as a general practice, to reduce the chance of pests and disease getting into their orchards. These include:
 - o using pest-free propagation material and seedlings, sourced from a reputable supplier
 - o putting up farm biosecurity signs on gates and fences to manage visitors coming onto your property
 - o avoid sharing equipment
 - o keep equipment and vehicles clean and free of plant matter
 - o wear clean clothing before visiting other growers' properties
 - o ensure farm workers are aware of on-farm hygiene practices, know what to look for and how to report unusual pests and diseases.
- Production nurseries can put measures in place to reduce the chance of pests and disease getting into their cropping systems. These include:
 - o using pest-free propagation material including seeds and budwood, sourced from a reputable supplier/scheme such as Auscitrus
 - o using pest-free vegetative propagation material sourced from a known and reputable supplier where motherstock is inspected and found free of disease symptoms
 - o implement industry based biosecurity programs across the production system that support procedures for sourcing, inspecting, treating and managing plant material
 - o putting up farm biosecurity signs on gates and fences to manage visitors and vegetative material coming onto your property
 - o avoid sharing equipment
 - o keep equipment and vehicles clean and free of plant matter
 - o wear clean clothing before visiting other growers' properties

- o ensure farm workers are aware of on-farm hygiene practices, know what to look for and how to report unusual pests and diseases.
- You can find out more about on-farm biosecurity and order your signs at www.farmbiosecurity.com.au.

Reporting

- Early detection, reporting and not moving plants suspected of being infected is vital, and will give us the best chance of eradicating this disease.
- Signs of infection can look like other bacterial diseases that are known in northern Australia. All suspect symptoms must be reported.
- If you think you have a plant with citrus canker, or if you have recently sourced citrus plants from the Northern Territory or northern Western Australia, please contact the Exotic Plant Pest Hotline on 1800 084 881. This will put you in touch with the department of primary industries or agriculture in your state or territory.
- You should not collect a sample or move the suspect plant.
- Most states have an app or mechanism for submitting a photo for preliminary diagnosis. The photo should be a clear image of the suspect plant, the disease symptoms and the plant's label, if you still have it.

Interstate travellers

- Interstate travellers also have a role in preventing the spread of pests and diseases. Do not take fruit, whole plants or plant cuttings into another state or territory without checking first. You can do this on the Interstate Quarantine website which is interstatequarantine.org.au.

About the disease

- Citrus canker is a contagious disease caused by the bacteria *Xanthomonas citri* sub species *citri* which can affect all citrus plants including native species. There are also non-citrus hosts for this disease.
- Citrus canker is native to South East Asia. It 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 insect citrus leaf miner, which is the larvae of a small moth widely distributed in Australia.
- The symptoms of citrus canker include blister-like lesions on both sides of the leaves that are raised, tan to brown in colour, and are surrounded by an oily, water-soaked margin and a yellow ring or halo. Large or older lesions may have a crater-like appearance.
- Premature fruit drop can occur, along with defoliation, twig dieback and general tree decline. In severe cases, it can lead to tree death.
- Citrus canker can be spread rapidly over short distances, particularly in tropical and subtropical climates by wind-blown rain. Overhead irrigation systems can also spread the disease. Long

distance spread occurs through, cyclones, or by people moving infected plant material or equipment.

Trade

- The Department of Agriculture and Water Resources has notified the International Plant Protection Convention. This is in line with our international reporting requirements when an emergency plant pest or disease is confirmed.
- The department works with overseas trading partners when market access issues arise due to an outbreak.
- The Australian Government is committed to maintaining Australia's favourable pest and disease status which includes internationally recognised country freedom from citrus canker.
- Domestic movement restrictions are in place to prevent the entry of citrus canker hosts and carriers, plants and plant material, soil, equipment and machinery, from affected jurisdictions. This is to minimise any risk of the disease spreading.

History of citrus canker in Australia

- Citrus canker has previously been detected in Australia but has been eradicated in each instance.
- The first recorded outbreak of citrus canker was in the Northern Territory in 1912.
- In 1984, a program was initiated to eradicate citrus canker from Thursday Island. Over a two-year period a total of 10 citrus trees were found to have canker symptoms and were destroyed. No symptoms of citrus canker have been observed on Thursday Island since February 1986, and the disease was declared eradicated in September 1988.
- Citrus canker was detected in the Northern Territory again in 1991 at Lambell's Lagoon, about 50 kilometres from Darwin, and affected a small number of pomelo citrus trees.
- All affected trees were destroyed, and the area was intensively monitored for two years. Citrus canker was officially declared eradicated in the Northern Territory in 1995. The Department of Primary Industry and Resources has continued to undertake regular surveillance and testing since then to help ensure the Territory remained citrus canker free.
- The disease was also detected on several commercial citrus orchards in Emerald, Queensland, in 2004. Eradication of the outbreak and restoration of country freedom for the disease was declared in January 2009.

Comparisons to Emerald incident

- We acknowledge some growers' concerns about the 600-metre destruction zone for citrus trees in the affected areas in the NT and WA.
- The 600-metre destruction zone is designed to manage the potential natural spread from any infected plants, and is based on the scientific evidence we have available from previous outbreaks in Australia, and from overseas.
- This current incursion is different to the incident that occurred in Emerald in 2004. The source of the outbreak in Emerald was in an orchard in a commercial citrus area. What we have in the NT and WA, are citrus plants that are intended to be in a pot on someone's veranda or in a residential backyard.

- The agreed response plan is constantly being reviewed and adjusted as the incident changes or when new information becomes available.

Background to the incident

- Citrus canker was detected in early April 2018 at two retail outlets in Darwin and Palmerston. The disease was found on West Indian and Tahitian limes.
- Citrus plants propagated on an infected premise are understood to have been sold from the Darwin and Palmerston retailer before the symptoms were noticed.
- All citrus products have been removed from the affected retail outlets and have been disposed of under strict biosecurity procedures.
- The source of the disease is not known at this stage.
- Following tracing and testing of nursery plants from Darwin, there are confirmed and linked cases to seven locations within the Greater Darwin area and one in Katherine in the NT. In WA there are links to three premises in the north of the state. Two are at Kununurra and the other is in Wyndham. Host material traced to these locations has been destroyed.

Response arrangements

- The incident is being managed under the Emergency plant Pest Response Deed. The deed is a formal legally binding agreement between Plant Health Australia, the Australian, state and territory governments, and national plant industry bodies representing specific cropping sectors. The deed covers the management and funding of nationally agreed responses to emergency plant pests.
- The Consultative Committee on Emergency Plant Pests provides technical and scientific advice in response to exotic plant pest and disease outbreaks. The Committee is chaired by Australia's Chief Plant Protection Officer and comprises the Chief Plant Health Managers from each state and territory, other specialists from government, Plant Health Australia, and representatives from affected industries that are signatories to the Emergency Plant Pest Response Deed. In this instance, this includes Citrus Australia and Nursery and Garden Industry Australia.
- The National Management Group (NMG) consists of Chief Executive Officers from government agencies responsible for agriculture and affected industry organisations that are signatories to the Emergency Plant Pest Response Deed. It is chaired by the Secretary of the Australian Government Department of Agriculture and Water Resources. Plant Health Australia is a non-voting member.
- NMG makes decisions on whether to support national eradication programs for emergency plant pest outbreaks under the deed. NMG considers recommendations provided by the consultative committee before making decisions on whether an emergency plant pest is feasible to eradicate.

