



## Myrtle Rust (*Austropuccinia psidii*)

# Survey Protocol

Symptoms on ramarama (*Lophomyrtus bullata*). Credit: Department of Conservation, Te Papa Atawhai.

This protocol describes the procedure for the survey of nursery site and plants for the presence of myrtle rust symptoms. Use of these standardised methods facilitates detection of the disease if it is present and provides 'evidence of absence' of the disease at the time of inspection.

This procedure is to be undertaken by either the person responsible for the nursery, or by individuals who have been trained in identification of myrtle rust and use of this protocol. Internal training should be recorded for nurseries certified with Plant Pass.

Surveys may be undertaken as part of other pest and disease monitoring activities, however the plant inspection procedure and the number of plants inspected must be met when inspecting Myrtaceae plants.

## Planning and Preparation



1 Carry a camera and mobile phone



2 Wear disposable gloves



3 Prepare recording sheets, etc.



4 Identify all of the areas in the nursery and surroundings where myrtaceae species are present, noting recent plant movements and including plants in the inwards and dispatch areas



## Property survey

Periodically, through the high-risk period, survey planted myrtaceous species in the surrounding areas along property boundaries, roads etc. Find out which species are considered susceptible at [myrtlerust.org.nz](http://myrtlerust.org.nz).

Pay attention to plants located upwind based on the most common prevailing wind direction of the season.

## Crop inspection schedule

1. The timing and frequency of plant surveys will differ depending on region and climatic factors. Check the NZPPI Plant Disease Management Platform ([www.nzppi.co.nz/Resources](http://www.nzppi.co.nz/Resources)) for the disease risk in your local area.
2. Walk at random through each block or bench area containing susceptible Myrtaceae plants\* in a zigzag pattern. Refer to the Plant Production Management Protocol and [myrtlerust.org.nz](http://myrtlerust.org.nz) for details on susceptible species.
3. Visually scan the plants in the block (or bench) for signs of disease, or infection.
4. For production and display blocks and benches **less** than 100m<sup>2</sup>, randomly select 10 plants and inspect the tops and bottoms of leaves (particularly the bottoms), stems, buds and fruit looking for any evidence of the disease.
5. With larger plants, select 10 leaves from all parts of the plant (upper, middle, lower) and examine them individually.

\* Myrtle rust only infects young, actively growing leaves, shoot tips, flowers and stems, but older yellow pustules may also be seen on mature leaves of highly susceptible host species, such as *Lophomyrtus* spp.

## Recording results

**Records are to be kept for all myrtle rust surveys, including:**

- i. Date and time of survey
- ii. Name(s) of individual(s) completing the survey
- iii. References for each area of the nursery surveyed (e.g. block name / reference)
- iv. Record the absence, or presence of myrtle rust in each area (block, or bench)
- v. Records may be collected in an electronic or written form, including in a diary, recording sheet, app or site map
- vi. Records are to be reviewed by management and kept for a minimum of 12 months
- vii. It is recommended that surveys also include the area of each block (m<sup>3</sup>) with the number of plants inspected

## Taking Action

**If myrtle rust is detected, we recommend you:**

Isolate affected plants from healthy plants.

If possible, remove affected plants. If not possible due to volume trim off the affected areas - bag, leave for a few weeks then destroy via bulk waste, composting or deep burial.

And/ or use a curative fungicide (see Prevention with Fungicides Protocol for details).





Symptoms on *Syzygium australe* leaves and stem. Credit: Department of Conservation, Te Papa Atawhai.

## IF YOU FIND ANYTHING UNUSUAL



If there is doubt as to whether symptoms are myrtle rust, in a myrtle rust prone area, then monitor frequently to see if characteristic symptoms develop.



If you see myrtle rust symptoms on an unusual myrtle species, or it is in a non-myrtle rust area (see [myrtlerust.org.nz](http://myrtlerust.org.nz)) then report it to MPI and consider taking a sample.



Take clear, well focused photos of the suspected myrtle rust and the whole plants and report the find on [iNaturalist.nz](http://iNaturalist.nz).



Don't leave infected myrtaceae plants on the site. Remove infected plant material and bag for disposal.

## DECONTAMINATION

If you are aware (or suspect) that you have been in contact with infected plants, follow the decontamination steps below.



Remove outer clothing and place the garments in a plastic bag and wash them using a hot wash cycle.



Wash down footwear with a disinfectant.