Myrtle Rust Update

October 2018

In this monthly update you will find:

- Detections in the last month
- Identifying myrtles and myrtle rust
- Give your plants the best chance against myrtle rust this spring
- How to reduce the risk of spread in your area
- Department of Conservation decision on bee movements
- Managing myrtle rust on your property, information and resources
- Science Spotlight
- Invitation to Biosecurity New Zealand Forum
- Links to further information

Detections in the last month

The total number of infected properties reported since the start of the response is **784**.

New finds since last update by town/city/suburb – 8 new sites:

- **Northland:** Kaiwaka (1)
- **Auckland:** Matakana (1), Sunny Hills (1), Greenlane (1), Onehunga (1), Viaduct Basin (1), Saint Heliers (1)
- **Taranaki:** Oakura (1)

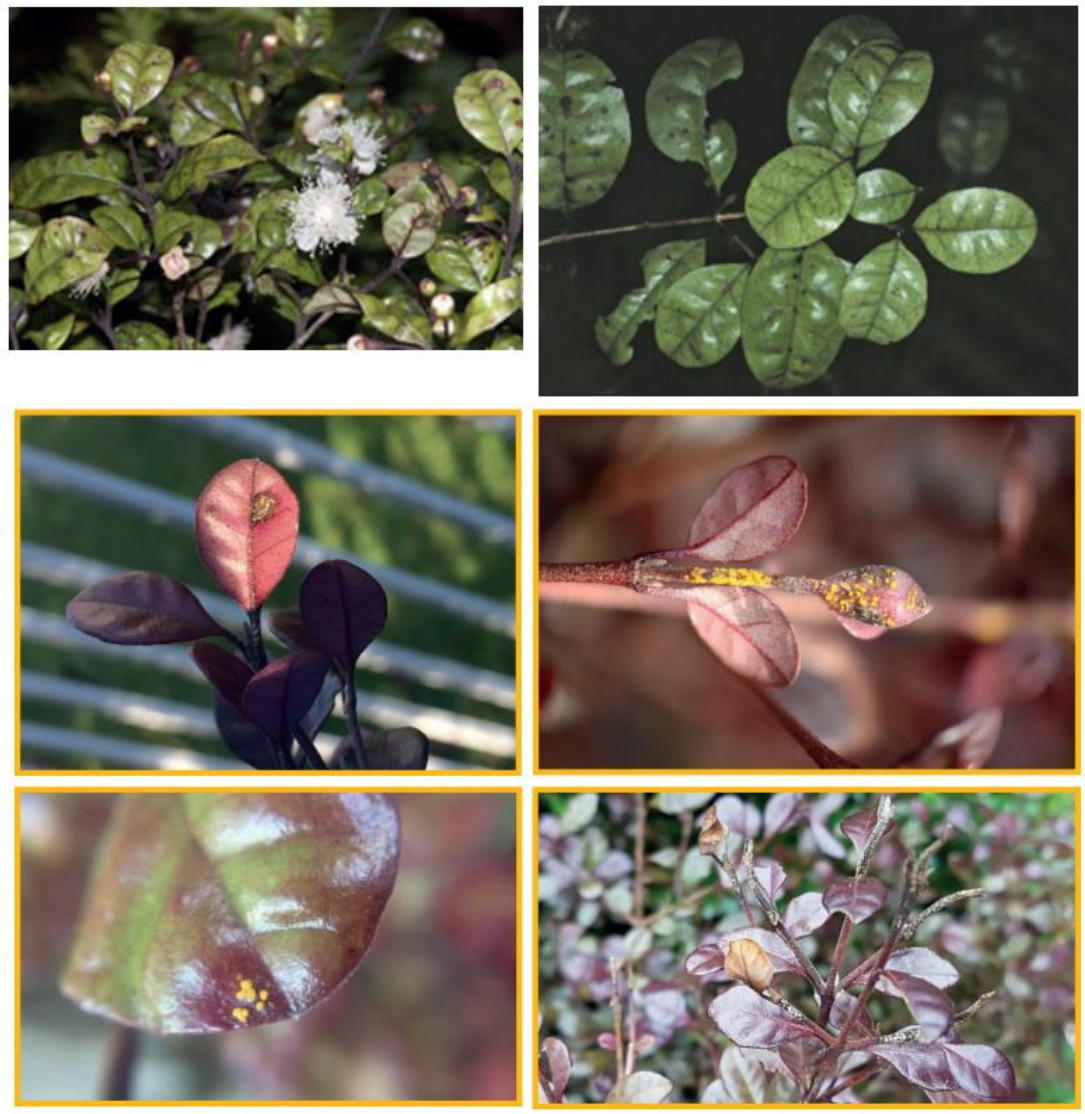
Property type:

Private (629), public land (68), commercial (45), school (16), nursery (13), public conservation land (5), retailer (2), golf course (2), orchard (2), depot (1), cemetery (1).

Identifying myrtles and myrtle rust

Myrtles, are a type of evergreen tree or shrub common to New Zealand. These include native plants such as pōhutukawa, mānuka, kānuka, ramarama, rātā, and exotic plants like feijoa, eucalypts, bottlebrush, guavas, willow myrtle and lilly pilly (also known as monkey apple). They can be very hard to identify.

We've put together a handy ID guide that shows photos of the most common myrtles in New Zealand. You can use this to identify whether you have a myrtle in your backyard or along your walking track and then monitor the plant for myrtle rust.



Identification images of ramarama from the Myrtle Rust ID Guide

Some other handy resources include:

- The New Zealand Plant Conservation Network
- Definition of the myrtle genus from Encylcopedia Britannica
- Landcare Research Plant Identification and Interactive Keys
- iNaturalist is a place where you can share what you see in nature, set up citizen science and community-based monitoring projects, meet other nature watchers, and learn about New Zealand's natural history

Download the myrtle rust identification guide here

Give your plants the best chance against myrtle rust this spring

There is no confirmed way to stop myrtles from contracting the disease, but there are some ways that you can give your plants the best chance against it.

Caring for your myrtle plants

Avoid heavy pruning during warm weather if possible as this could encourage susceptible new growth. Instead, prune myrtles only in late autumn and early winter. When pruning, use good hygiene practice, sterilise and disinfect tools and equipment with pure alcohol or methylated spirits.

Reduce soil compaction and injury to tree roots

Reduce or avoid applying any herbicides around trees, trunk or root plate areas. Read the product label, as care is needed with some grass care products which can contain selective herbicides that impact on garden plants and their growth patterns. Avoid lawn care or weed control products around the dripline of a tree. Tree roots do not like soil compaction and this can reduce tree health by stopping water absorbing into the soil, reducing oxygen in the soil as well as physically damaging the roots of trees which can allow the entry of diseases. Consider selecting low clumping or bulb type plant varieties if planting under established trees.

Use Mulch

The use of wood chip mulch could help improve the soil around trees as it helps plant establishment and growth. It helps keep water in the soil, keeps soil cooler, and produces a better habitat for soil microorganisms. Wood mulch is often free from arboriculture companies. Keep mulch away from the stem or trunk, but you can pile it up to 20cm deep. Replenish mulch as it breaks down (faster in some seasons than others). Homemade compost is also a good top-dressing for around trees and plants. Practice good hygiene in your garden, and keep tools clean to avoid spread of any pests or diseases.

Apply Fertiliser

Only use fertiliser on garden or plantation trees. Wild natural trees or stands of vegetation should not be fertilised. Natural products such as fish meal, blood and bone or sheep pellets will support soil microorganisms as well as the plants. Seaweed based fertilisers can also be used, and the use of products with humic acid, and trace minerals can help with soil health and root development. Products with phosphorus and potassium can help with root and shoot development.

Find more information for specific groups here

Help limit the spread of myrtle rust in your area

Here's a few handy tips that will help reduce the risk of spreading myrtle rust in your area.

Arrive clean, leave clean

The forest you visit could be infected with myrtle rust without you knowing it. Before entering such areas for work or recreation, you should minimise the risk of spreading the rust by ensuring your equipment, clothing and tools arrives clean and leaves the area clean.

Buy healthy plants

Make sure myrtle plants bought for your garden are free from the symptoms of myrtle rust. Inspect the leaves and stems of plants before you buy them, and avoid purchasing plants that have signs of disease.

Monitor your plants

Regular monitoring of myrtle plants will alert you to signs of myrtle rust, particularly new, young growth, shoots and seedlings. Early detection in your garden will give you time to consider options for myrtle rust control on your property. If myrtle rust does establish on your property, note which plants become the most severely affected.

DOC to restrict beehive movement on public conservation land

DOC is putting immediate restrictions on all beehive movements in specific areas on Public Conservation Land (PCL) in a bid to contain the spread of the fungal disease myrtle rust. The decision comes after research from Plant and Food indicates bees may be a vector for the spread of myrtle rust, which can damage and kill some plants in the myrtle family.

DOC's Director for Permissions Planning and Land, Marie Long, says DOC is concerned about the potential for honeybees to spread myrtle rust to unaffected areas of conservation land, so has restricted the movement of beehives.

"Myrtle rust is a threat to plants such as mānuka, kānuka, rātā and pōhutukawa. These plants are vital for healthy ecosystems, but also the beekeeping industry."

Beehive concessionaires have been informed that:

- Beehives cannot be moved from the North Island and placed on PCL sites in the South Island.
- Beehives cannot be moved from the Operational Districts of New Plymouth, King Country, Waikato, Hauraki, Tauranga and Auckland and placed on PCL sites in the Operational Region of Northern North Island.
- Beehives cannot be moved from the Operational Districts of Golden Bay, Motueka, Sounds and Marlborough South and placed on PCL sites in other Operational Districts in the North Island or South Island.
- Beehives cannot be moved from outside the Te Paki Ecological District and placed on PCL sites in the Te Paki Ecological District.

DOC is also advocating for more research into myrtle rust and bees to increase the knowledge around the role honeybees play in transferring the fungal disease.

See DOC's media release for more information

Managing myrtle rust on your property

If you own or manage land with plants that are infected with myrtle rust, you can either:

- care for the plants and monitor the impact of the disease
- remove or prune the infected plants and securely dispose of the waste

If you're transporting, and disposing of, infected plant material, you must comply with the general permission conditions issued by the Ministry for Primary Industries (MPI).

If you choose to remove or prune infected plants, you may require specialist equipment and technical skills. We recommend you consider hiring an arborist or contractor to remove infected plants on your property, especially if you have large trees.

A step-by-step guide is also available to help you.

For more information on managing myrtle rust on your property go to Biosecurity New Zealand's myrtle rust webpage.

Managing myrtle rust on your property page here

Download How to remove infected myrtle plants

Science Spotlight

For a full list of current and completed research projects check out the link below:

Myrtle rust research programme webpage

Hear about research to manage the impact of myrtle rust in New Zealand

When it comes to myrtle rust, researchers are looking at anything and everything that might help in the fight to keep New Zealand plants and ecosystems healthy.

Listen to the full podcast to hear about the impact of myrtle rust in New Caledonia, and to hear about exciting new genetic research being used in the search for genes that influence resistance.

You can also check out Radio New Zealand, Our Changing World's feature on myrtle rust to learn about the disease, and hear about its impacts in Hawaii, Australia and on New Zealand's Raoul Island.

Read the story or listen to the full podcast here

Meet a researcher - Jules Freeman

Jules Freeman is post Doc working on resistance breeding and genetic markers for resistance. Jules completed his PhD at the University of Tasmania (UTAS) in molecular biology. He has 11 years postdoc experience, specialising in eucalypt genetics and the combination of molecular and quantitative genetic approaches, with a special interest in the genetics of host resistance.

Predominantly based in Tasmania, Jules has also spent time working in Bordeaux, France and for the University of the Sunshine Coast (Queensland Australia). He began working on myrtle rust resistance seven years ago, soon after the Australian incursion, and has strong collaborative links with leading international experts in plant pathology, forest genetics and tree breeding.

Invitation to Biosecurity New Zealand Forum

Join Biosecurity New Zealand and its forum partners, the Government Industry Agreement and the Department of Conservation, at biosecurity's premier event – the **Biosecurity New Zealand Forum.**

This year's forum theme is *'Biosecurity: Partnering to Protect',* exploring the many different approaches to, and motivations for biosecurity. A draft programme is also available. **Check it out here**. Don't miss out, **register now.**

Find out more

About myrtle rust:

Biosecurity New Zealand myrtle rust page

DOC myrtle rust page

Myrtle rust ID guide

Myrtle rust fact sheet

Read more about myrtle rust

Video on Youtube featuring ‘Bug Man’ Rudd Kleinpaste:

Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

Department of Conservation
Te Papa Atawhai

This information is compiled by the Ministry for Primary Industries (MPI) and the Department of Conservation (DOC).

For information about this update, contact MyrtlerustNZ@mpi.govt.nz

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