



Myrtle Rust Update

November 2018

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Please note our last update for the year will be sent out on 19 December.



Detections in the last month

The total number of infected properties reported since the start of the response is **797**.

New finds since last update by town/city/suburb – 13 new sites:

- **Auckland:** New Lynn (1), Sandringham (1), Point Chevalier (1), Waimauko (1), Glendowie (1), Blockhouse Bay (2), Whangaparoa (1), Remuera (1)
- **Bay of Plenty:** Omokoroa (1), Matua (1)
- **Wellington:** Lower Hutt (1)
- **Nelson:** Richmond (1)

Property type:

Private (639), public land (70), commercial (46), school (16), nursery (13), public conservation land (5), retailer (2), golf course (2), orchard (2), depot (1), cemetery (1).

Myrtle rust resources for schools

The Science Learning Hub Pokapū Akoranga Pūtaiao has developed a selection of educational resources for schools. If you are working with schools and want to share messages about myrtle rust please check out the resources available which include:

- Photographs of myrtle plants that grow in New Zealand - native and exotic (see below)
- Clear descriptions of myrtle rust symptoms, its origins and a summary of the biosecurity response
- A myrtle rust surveillance map
- An interactive timeline of activities since its arrival in New Zealand



Myrtle family species in New Zealand

[Check out the science learning hub here](#)

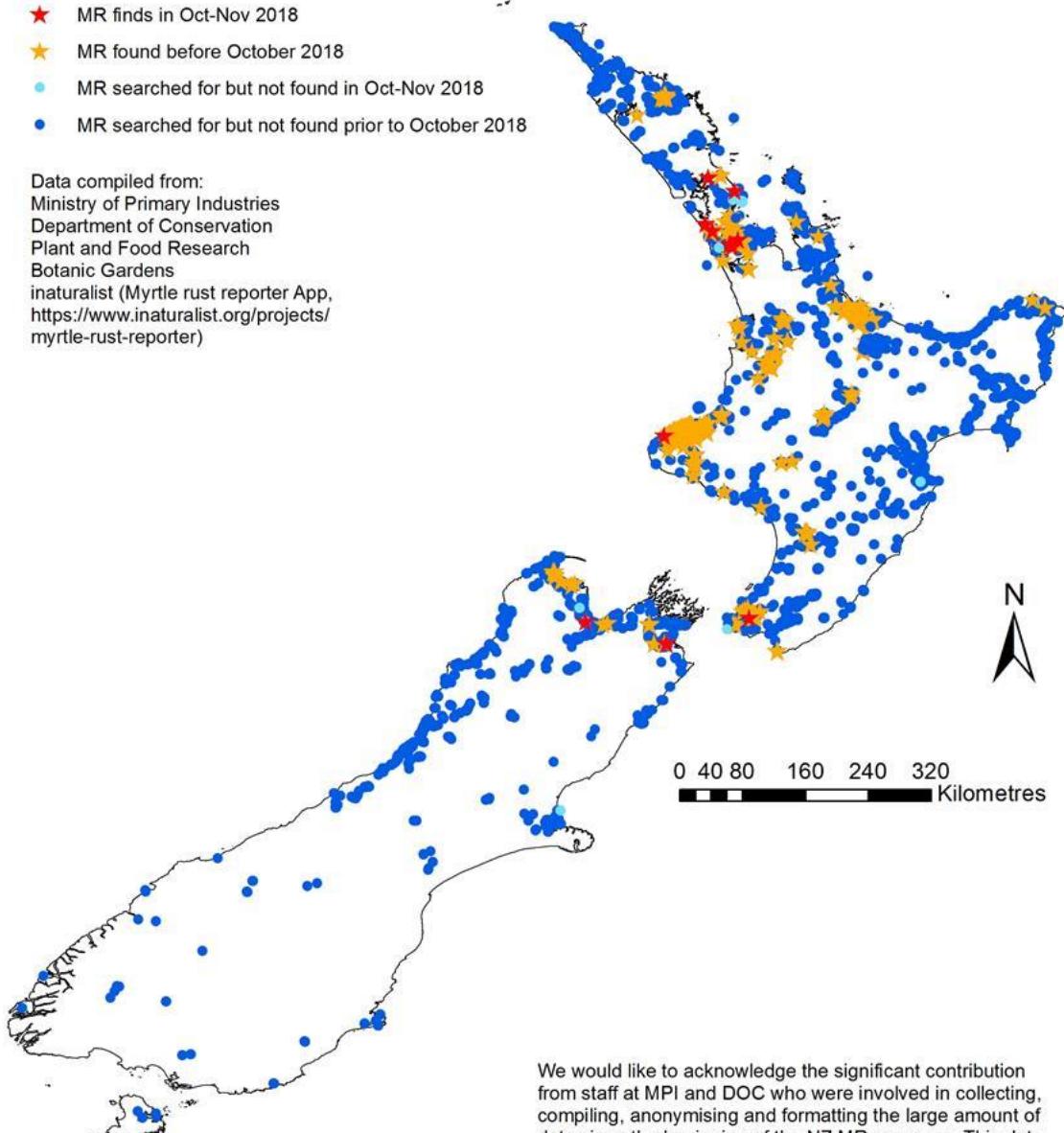
Myrtle rust surveillance map

NZ national Myrtle Rust (MR) surveillance

Data as of 21 November 2018

- ★ MR finds in Oct-Nov 2018
- ★ MR found before October 2018
- MR searched for but not found in Oct-Nov 2018
- MR searched for but not found prior to October 2018

Data compiled from:
Ministry of Primary Industries
Department of Conservation
Plant and Food Research
Botanic Gardens
inaturalist (Myrtle rust reporter App,
<https://www.inaturalist.org/projects/myrtle-rust-reporter>)



We would like to acknowledge the significant contribution from staff at MPI and DOC who were involved in collecting, compiling, anonymising and formatting the large amount of data since the beginning of the NZ MR response. This data was critical to improving the coverage and quality of data. Diagnostic validations were provided by plant pathologists at the Plant Health and Environment Laboratory (PHEL-MPI).

Map by Rebecca Campbell (Plant and Food Research)
Funded by B3





Myrtle rust research to be accelerated

Research, Science and Innovation Minister Megan Woods has announced a funding increase of \$5 million over three years from the Strategic Science Investment Fund (SSIF) for research into myrtle rust.

The research will be under the umbrella of the New Zealand's Biological Heritage National Science Challenge (BioHeritage Challenge).

The new investment will be used to focus and accelerate the work already being done by Government agencies, councils, research providers, Māori and interest groups. A high-level research strategy is currently being developed by the BioHeritage Challenge.

The strategy will align with BioHeritage's three big goals – whakamana, tiaki, whakahou (empower, protect, restore) – and the research priorities already identified by the Myrtle Rust Strategic Science Advisory Group.

[For more information on the funding click here](#)



Give your plants the best chance against myrtle rust

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

Caring for your myrtle plants

It's the new spring flush that is most susceptible to infection. To avoid stimulating new growth in warm weather it's recommended that you avoid heavy pruning during warm weather if possible. 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 to avoid transferring spores.

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 may be available for 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.

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 phosphorous 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.



Resources for landowners

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](#)

What is PCR?

The myrtle rust detection team uses PCR to identify myrtle rust spores.

PCR is shorthand for a simple but very useful procedure in molecular biology called the polymerase chain reaction. It is a technique used to amplify a segment of DNA of interest or produce lots and lots of copies.

PCR contributes to our understanding of many environmental issues, particularly where the detection of microorganisms in the environment is required. PCR allows specific target species to

be identified and quantified, even when very low numbers exist. One common example is searching for pathogens such as myrtle rust.

Watch this video to find out about the PCR process:

[Watch the video to find out more about PCR](#)

Find out more

About myrtle rust:

[Biosecurity New Zealand myrtle rust page](#)

[DOC myrtle rust page](#)

[Myrtle rust research programme webpage](#)

[Myrtle rust fact sheet](#)

[Read more about myrtle rust](#)

Handy information:

[Myrtle rust ID guide](#)

Identification resources

Some other handy resources include:

- [The New Zealand Plant Conservation Network](#)
- [Definition of the myrtle genus from Encyclopedia 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

Radio New Zealand's 'Our Changing World' podcast on myrtle rust research

[Read the story or listen to the full podcast here](#)

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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Ministry for Primary Industries

PO Box 25256, Wellington, New Zealand

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