



Myrtle Rust Update

September 2018

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Detections in the last month

The total number of infected properties reported since the start of the response is **776**.

New finds since last update by town/city/suburb – 7 new sites:

- **Auckland:** Kawau Island (1)
- **Taranaki:** Waitara (1) and New Plymouth (1)
- **Wellington:** Cape Palliser (4)

Property type:

Private (623), public land (68), commercial (43), school (16), nursery (13), public conservation land (5), retailer (2), golf course (2), orchard (2), depot (1), cemetery (1).

Susceptible plants

The plants that appear to be most susceptible to myrtle rust in New Zealand so far include ramarama, pōhutukawa, monkey apple and bottle brush.

MPI surveillance findings

Host	Total	Confirmed
Ramarama: <i>Lophomyrtus</i> spp.	14,220	658
Pōhutukawa, Northern rata, Southern rata: <i>Metrosideros</i> spp.	44,718	418
Monkey apple: <i>Syzygium</i> spp.	10,183	160
Bottle brush: <i>Callistemon</i> spp.	12,232	21
Willow myrtle: <i>Agonis flexuosa</i>	504	7
Feijoa: <i>Acca</i> spp.	18,216	5
Mānuka: <i>Leptospermum scoparium</i>	19,808	3
Chilean Guava: <i>Ugni molinae</i>	1,236	2
Gum: <i>Eucalyptus</i> spp.	6,961	1
Australian Tea Tree: <i>Thryptomene</i> spp.	82	1
Australian Water Gum: <i>Tristanopsis</i> spp.	340	1
Other	16,047	0
Total:	144,547	1,277

Endeavour funding successful

The Government is investing \$249m in ambitious research projects that will improve the lives of New Zealanders and address some of the challenges we face as a country.

The 69 new research projects were awarded funding through the 2018 round of the Endeavour Fund. This is New Zealand's largest and most prestigious research and science contestable fund.

One of those projects is *Beyond myrtle rust: Next-generation tools to 'engineer' forest ecosystem resilience to plant pathogens* led by Landcare Research.

The full list of successful projects is available [here](#)

See MBIE's website for more details



Myrtle rust resources live on Science Learning Hub Pokapū Akoranga Pūtaiao

The Science Learning Hub – Pokapū Akoranga Pūtaiao links New Zealand scientists with school students, teachers and community audiences.

They recently published a series of myrtle rust resources which are now live on their Hub.

[Check out the resources here](#)



Predicting the climatic risk of myrtle rust during its first year in New Zealand

After the first detection of myrtle rust (*Austropuccinia psidii*) on mainland New Zealand in May 2017, the Ministry for Primary Industries sought information about how weather conditions would affect regional and seasonal risk of disease establishment to help plan the incursion response.

Using internationally published information, a pathogen process model was developed to predict infection, latent period and sporulation in relation to weather variables (temperature, relative humidity and solar radiation).

[Read the full journal article here](#)



Photo credit: New Zealand Trumper + contributors 2018

DOC Success on Mount Karioi

DOC staff have treated and removed all myrtle rust infected ramarama (*Lophomyrtus bullata*) and rata (*Metrosideros diffusa*) from the Te Toto Gorge Summit Track on Mt Karioi. The track had been closed to the public since April 2018.

MPI and DOC surveillance data helped to target infected plants for treatment and removal along the track.

DOC is now confident that all reported myrtle rust infections, alongside additional infections found in proximity to infected plants, have been treated and removed which has allowed for the Karioi Summit Track to be reopened to the public.

DOC will continue to monitor the track periodically for myrtle rust infection.



Change in Operational Approach for Biosecurity New Zealand

Given the widespread distribution of the disease, MPI has scaled back its activities. We're focusing on:

- long-term monitoring
- researching the development of new management approaches across New Zealand.

MPI will continue to help collect, analyse, and report myrtle rust data. The data will allow us to build up the picture of the spread and distribution of infection.

But MPI will no longer be doing field work to manage the disease. Activities like surveillance, and spraying or removing infected trees has stopped.

Landowners with myrtle rust infection on their property can decide how to manage their plants themselves. MPI will continue to provide advice and guidance on what people can do to manage myrtle rust on their own properties.

For more information see the Biosecurity New Zealand's myrtle rust webpage by clicking the button below:

[Managing myrtle rust on your property page here](#)



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](#).

[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](#)

Here's what's been happening this month:

- A Science Hui was held on 13th and 14th of September where researchers across the different projects shared their research so far.
- New Zealand Plant Producers Inc. has made further progress in developing a plant production biosecurity scheme for nurseries and garden centres.

Research outputs are expected quarterly and we will ensure the findings are shared with you via this newsletter.

Meet a researcher - Kwasi Adusei-Fosu



Kwasi is originally from Ghana where he completed his Master's Thesis in Plant Biotech. He then went on to complete a PhD in Plant Pathology at the University of Nottingham in the UK (funded through a Commonwealth Scholarship). More recently Kwasi has been working at the Vineland Research and Innovation Centre in Ontario, Canada, where he has been involved in various (biological and chemical) disease control programmes.

Having worked in three different countries Kwasi has broad experience in plant pathology (extension services, pathogen-host interactions, field trial set-up, transcriptomics, QPCR and disease control) as well as working with a wide range of cultures and people.

Symptoms to look out for on myrtle plants



Small bright yellow powdery eruptions first appear on the underside of the leaf



As the infection progresses, bright yellow powdery eruptions of spores appear on both sides of the leaf



Overtime, the damaged leaf darkens and becomes brown and rust pustules turn grey



Some heavily infected leaves may become buckled or twisted and die off

Myrtle rust prefers relatively high humidity and warm temperatures to produce spores from spring to autumn, while plants are actively putting on new growth.

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:



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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