

Blitzing blueberry rust



Why is blueberry rust such a menace?

Blueberry rust is a plant disease caused by a fungus called *Thekopsora minima*.

This disease of blueberries is not found in Western Australia and will be a nuisance for home gardeners and farmers if it is introduced.

The fungus destroys blueberry leaves, reducing photosynthesis which is necessary for

plant growth and development. A bald plant will produce fewer blueberries!

Blueberry rust can be present all year round and spreads quickly in spring, attacking not only blueberries but also cranberries, huckleberries, rhododendrons and azaleas.



Blueberry rust is established in NSW and Queensland.

It is not found in Western Australia.

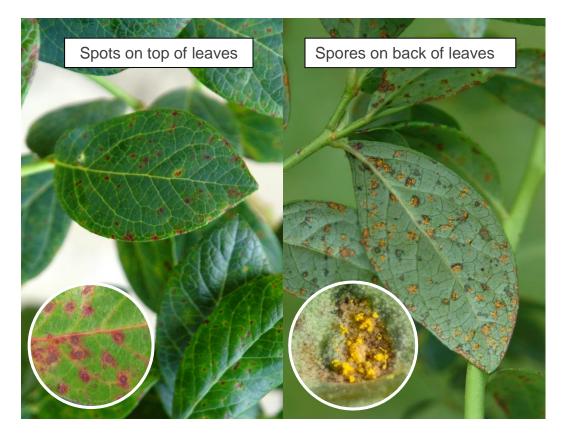
Let's keep it out Western Australia.

Rusty facts

- "Rust" diseases are named after the colour of the spores produced by the fungus.
- There are approximately 7,000 species of rust fungi. They are highly specialized plant pathogens with several unique features.
- Rust fungi are obligate parasites, which means they can only grow on a living host.
- Rust species have up to five spore stages and each stage lives on a different host, so the fungus has to move from host to host to fully complete its life cycle. Rusts can usually complete a mini-lifecycle if only one host is available.
- Infected leaves release millions of spores and it takes only one spore to infect a healthy plant.

What does it look like?

- Look for small dark reddish spots on the upper surfaces of blueberry leaves. The spots might have a yellow halo.
- Yellow pustules develop on the undersides of the leaves.
 (Each pustule releases thousands of yellow spores which spread the disease).
- Brown, curled up leaves may also be present.
- Yellow spores might also be found on fruit.



Activity goal

The goal of this activity is to **look** for, **photograph** and **report** any damage observed on blueberry leaves so we can check blueberry rust has not spread to Western Australia.

Materials required

- 1. A mobile device (phone or tablet) with <u>MyPestGuide™ Reporter</u> downloaded onto it.
- 2. A macro lens for your camera would be ideal, but is not essential.
- 3. Sheet of white paper.
- 4. Instructions on how to make a report.





What to do

- 1. **Find a blueberry plant** Hint: if you don't have a blueberry growing in the garden check to see if your neighbours, family or friends do.
- 2. **Survey the plant** look carefully at the leaves to see if you can see any dark spots on the upper surface, and any yellow spores forming on the underside.
- 3. **Pick** 5 leaves to photograph. If any leaves on your plant have suspicious spots choose those first. After that, choose fully formed leaves at random
- 4. Arrange the leaves on a sheet of white paper in a brightly lit spot.
- 5. **Send a report** using the MyPestGuide[™] Reporter Photograph the whole plant, then take a photo of the 5 leaves you picked from the top, then turn them over and photograph the backs of all the leaves.
- 6. **Take a close up photo** of the back of one leaf that resembles the photos of blueberry rust. (Don't worry if there aren't any leaves that look exactly the same as the photos we are hoping nobody will find blueberry rust!).
- 7. If you found any spots on the leaves, put the leaves in a sealed plastic bag and **dispose** of them in your household waste (not green waste).



Example photos (left to right): Blueberry bush, top of leaves, bottom of leaves, close up

If the symptoms in your photos look suspicious to our experts, we will be in touch quickly to let you know what to do

IMPORTANT - Blueberry rust spreads very easily!

- ✓ If you find something that looks like blueberry rust, help us stop the spread – Snap it, Send it, Share it.
- ✓ Use MyPestGuide[™] Reporter to report it straight away.
- ✓ Wait until we advise you
- Avoid touching the diseased plant. This could dislodge the spores and accelerate the local spread of blueberry rust

- X Do not touch the plant
- X Do not spray it with a fungicide
- X Do not cut off any affected branches
- X Do not move the plant to a new location
- X Do not send a sample unless advised

Protect your garden

- Don't throw any store-bought fruit away in your garden. Blueberry rust spores might come into your garden on infected plants or on blueberry fruit and packaging.
- Always wash your hands and equipment like secateurs thoroughly and make sure your clothes and shoes are clean before you start work in the garden.

More information

- Blueberry rust: declared pest
- Blueberry Rust Fact Sheet

Acknowledgements

Photos of blueberry fruit: "Fresh blueberries on white background" by Marco Verch on Flickr is licensed under Creative Commons 2.0

Spots/Spores on leaves: "Blueberry rust" by Scot Nelson on Flickr. Public Domain

Spots/Spores on leaves insets: "Blueberry leaf rust" by Bruce Watt, University of Maine on Bugwood.org are licensed under Creative Commons BY-NC 3.0

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