



# Myrtle Rust Masterclass – Community Awareness

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## 1. Executive Summary

A masterclass on myrtle rust was held at Box Hill Institute's (BHI) Biosecurity Centre of Excellence located at the Lilydale campus on the outer eastern fringe of Melbourne. Dr Louise Shuey, Queensland Department of Agriculture and Fisheries, and David Smith, Senior Forest Biosecurity Officer with the Victorian Biosecurity and Agricultural Services gave a 45-minute presentation on myrtle rust, its biology and impact on native Myrtaceae, the current situation in Victoria, and fielded a wide range of audience questions for a further 15 minutes.

Myrtle rust, an exotic fungus *Austropuccinia psidii* first recorded in Brazil in the late 1800's and then Australia in 2010, has spread length of the eastern seaboard of Australia by natural means (wind, animals and insects) and via the movement of plant materials. It threatens over 2250 species of Australian Myrtaceae including 48 species that are considered highly or extremely susceptible and many important social and commercial plants.

Awareness programs, particularly focused on nursery wholesalers of Myrtaceae have helped minimize the spread of the disease but community awareness, particularly in Victoria, is still low.

The masterclass, targeted at community and businesses, attracted over 80 participants either in person or online through a streaming service that also allowed for questions to be presented to the speakers. The masterclass, including the question and answer session, can be accessed online through the Centre's Biosecurity Hub: <https://studentweb.bhtafe.edu.au/biosecc>.

## 2. Introduction

Myrtle rust (*Austropuccinia psidii*) was first identified in Victoria in Dec 2011 on plants in a retail nursery. Investigation of 300 nurseries, residential properties and public gardens identified a further 80 infected properties including two new cases in 2019. From the Emergency Response phase triggered by the initial identification and ended in March 2012, the Victorian response moved into Active Management (April – July 2012) and then Monitoring (July 2012 – present). Containment programs exist on the 80 infected properties, and monitoring is carried out on over 100 sentinel sites across Victoria.

Ongoing on-ground monitoring surveys are critical in providing consistent data for local governments to make informed decision for better management and containment of the disease. Successful continuous surveillance will be enhanced through partnership with industry, councils, NGOs and citizen-scientists. A common understanding of the disease life cycle, adequate training for symptoms recognition, and suitable reporting mechanism will further support disease reporting.

For non-experts, the presence of yellow pustules on leaves is easily identified as a life stage of the pathogen. However, residual evidence of the infection may be present in the form of varying levels of defoliation, shoots death, and even death of the plant (depends on the plant species) which make them hard to attribute explicitly to myrtle rust. The objective of the Masterclass is to have an interactive forum for community and industry to hear from leading scientists in myrtle rust, to share their experiences and knowledge of symptoms and signs, how to record disease attributes, and the proper handling of disease occurrences.

Box Hill Institute Masterclasses are recorded, and are used as teaching resources in both VET and Higher Education courses. They are also freely available to the public through the BHI website: <https://studentweb.bhtafe.edu.au/biosec>

### 3. Aim

The aim of the Masterclass was to have an interactive forum run at the Lilydale Lakeside Campus of Box Hill Institute for community and industry to hear from leading scientists in myrtle rust, to share their experiences and knowledge of symptoms and signs, how to record disease attributes, and the proper handling of disease occurrences. The Lakeside campus, located on the eastern peri-urban fringe of Melbourne, provided local businesses and community with an awareness of what myrtle rust is, and what someone should do who thinks they have seen myrtle rust.

### 4. Methods/Process

Dr Louise Shuey, Queensland Department of Agriculture and Fisheries, and David Smith, Senior Forest Biosecurity Officer with the Victorian Biosecurity and Agricultural Services were asked to give a 45-minute presentation on myrtle rust in September 2019. They were asked to cover its biology and impact on native Myrtaceae, and on the current situation in Victoria including what to do if someone identifies a potential case of myrtle rust. Louise and David then fielded a wide range of audience questions for a further 15 minutes.

The presentation was promoted electronically to a network of local and extensive contacts of the BHI Biosecurity Centre of Excellence who have an interest in horticulture, conservation and land management, environment, arboriculture, biosecurity, and citizen science.

Ticketing (free of charge) was made available through Eventbrite. Participants were given a choice of participating in person at the Lilydale Lakeside Campus, or online through a link provided to all subscribers. Online participants could watch the masterclass live and could ask questions through a comments box provided in the link.

The event was recorded and an edited version of the event was uploaded onto the BHI Masterclass page and the Biosecurity Center of Excellence Hub. These pages have unrestricted access. A link to the page was sent to all participants and anyone who requested it.

In the days following the event an anonymous survey was sent to all participants asking:

- Q1: How likely is it that you would recommend a Biosecurity CoE masterclass to a colleague?
- Q2: Overall, how would you rate the Myrtle Rust Masterclass?
- Q3: How well did the event meet your expectations?
- Q4: Do you think the masterclass was too long, too short, or about right?
- Q5: How helpful was the content presented at the Myrtle Rust Masterclass?
- Q6: How engaging were the speakers at the Myrtle Rust Masterclass?

## 5. Achievements, Impacts and Outcomes

Responses to the masterclass-feedback survey were positive (see appendix) with 28 responses (33%), 96% of which rated the event either Very Good or Excellent. None rated the event less than good. The event was given a Net Promotor Score 56.

Overall, the masterclass achieve the stated aim of raising awareness of myrtle rust with 89% of responding participants to the event rating the event either very helpful or extremely helpful.

Participant feedback is detailed in the attached appendix.

## 6. Discussion and Conclusion

Eighty-five tickets were ordered for the event with a mix of online and in-person attendees. Attendees were largely from community, industry and BHI Staff with a small BHI student cohort (the event was run during the mid-semester break when many students are working or are unavailable which will have reduced the student participation). Further opportunities to extend the reach of the event will occur through the distribution of the online version of the masterclass and through using the masterclass as a teaching resource in the BHI Land Science and Biosecurity courses.

Louise Shuey spoke on the history of myrtle rust including the emergence of the Pandemic strain detected in Australia in 2010 and subsequently spread up and down the eastern seaboard. Dr Shuey covered the range of species susceptible to myrtle rust and talked about the biology of the rust and the impact on forests in NSW and Queensland.

David Smith focused on the Victorian response program, the disease's early detection, the emergency response phase and the active management and monitoring program that has gone on since early 2012. David concluded with advice on what to do if someone suspects they have identified myrtle rust, how to avoid spreading the disease and where to email images of the potential infection.

Question time covered a broad range of questions from participants about the biology of myrtle rust, the host range, involvement of honeybees in the spread of myrtle rust.

The edited version of the Myrtle Rust Masterclass is available on the Box Hill Institute's masterclass website and on the Biosecurity Centre of Excellence masterclass hub. Both sites have unrestricted access. A link to the Masterclass video has been distributed to all participants and people who expressed an interest in the event and will be used for training purposes through the BHI horticulture, conservation land management and biosecurity courses.

To access the Myrtle Rust Masterclass go to:

- Biosecurity Hub: <https://studentweb.bhtafe.edu.au/biosec>
- Box Hill Institute Masterclasses: <https://studentweb.bhtafe.edu.au/mod/data/view.php?id=302797>

## **7. Recommendations**

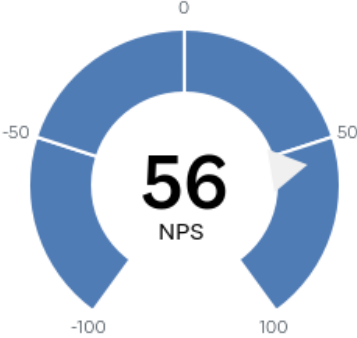
Box Hill Institute has found the masterclass format to be an excellent way of engaging with community and local businesses. In addition, the on-line participation is a good option to engage with people who cannot attend in person either because of other commitments or because of distance.

Recommendation: to continue to use the Masterclass format to promote the Foundation's key messages through regional education institutions to help engage with community and regional businesses.

## 9. Appendices

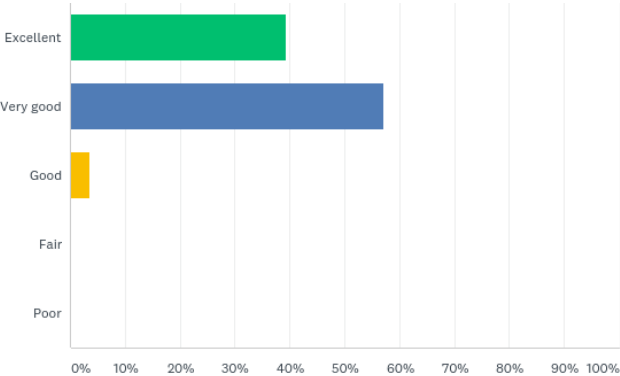
Responses from 28 (33%) of the Myrtle Rust Masterclass participants via an anonymous survey sent to all participants in the week following the masterclass event using the registration email provided upon enrolment. Where multiple tickets were booked using a single email only one survey link was provided (accounting for 11 participants).

**Q1: How likely is it that you would recommend a Biosecurity CoE masterclass to a colleague?**



DETRACTORS (0-6)	PASSIVES (7-8)	PROMOTERS (9-10)	NET PROMOTER® SCORE
7% 2	30% 8	63% 17	56

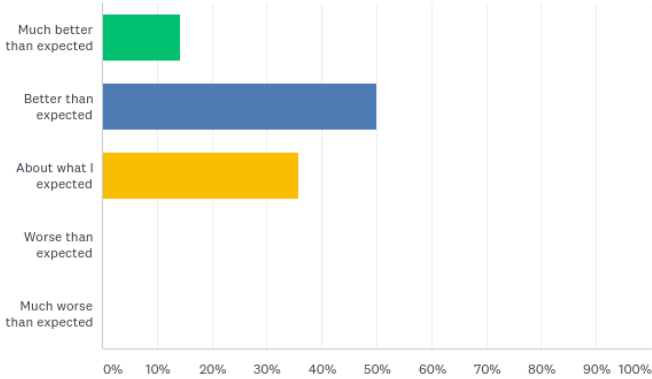
**Q2: Overall, how would you rate the Myrtle Rust Masterclass?**



ANSWER CHOICES	RESPONSES	
Excellent	39.29%	11
Very good	57.14%	16
Good	3.57%	1
Fair	0.00%	0
Poor	0.00%	0
<b>TOTAL</b>		<b>28</b>

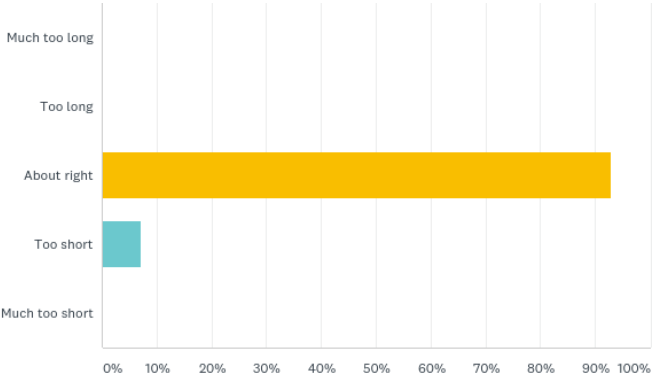


**Q3: How well did the event meet your expectations?**



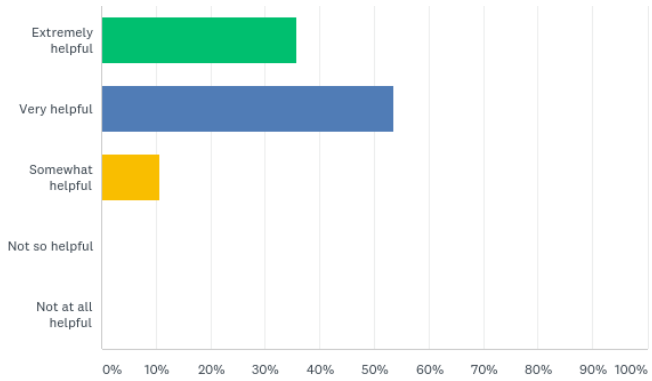
ANSWER CHOICES	RESPONSES	
Much better than expected	14.29%	4
Better than expected	50.00%	14
About what I expected	35.71%	10
Worse than expected	0.00%	0
Much worse than expected	0.00%	0
<b>TOTAL</b>		<b>28</b>

**Q4: Do you think the masterclass was too long, too short, or about right?**



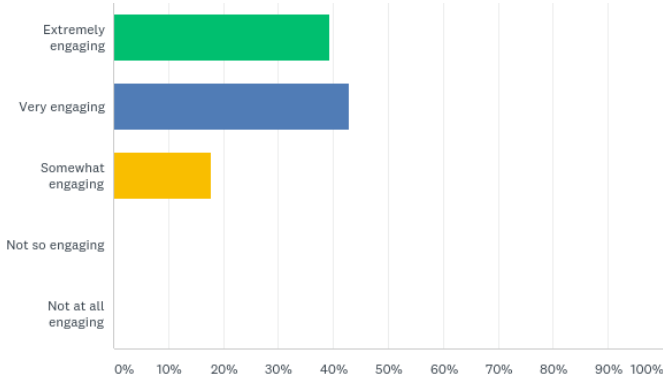
ANSWER CHOICES	RESPONSES	
Much too long	0.00%	0
Too long	0.00%	0
About right	92.86%	26
Too short	7.14%	2
Much too short	0.00%	0
<b>TOTAL</b>		<b>28</b>

**Q5: How helpful was the content presented at the Myrtle Rust Masterclass?**



ANSWER CHOICES	RESPONSES	
Extremely helpful	35.71%	10
Very helpful	53.57%	15
Somewhat helpful	10.71%	3
Not so helpful	0.00%	0
Not at all helpful	0.00%	0
<b>TOTAL</b>		<b>28</b>

**Q6: How engaging were the speakers at the Myrtle Rust Masterclass?**



ANSWER CHOICES	RESPONSES	
Extremely engaging	39.29%	11
Very engaging	42.86%	12
Somewhat engaging	17.86%	5
Not so engaging	0.00%	0
Not at all engaging	0.00%	0
<b>TOTAL</b>		<b>28</b>



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