

Disease Risk Summary for
Rarangi, Marlborough

Welcome to the NZPPI Disease Management updates.

NZPPI is providing weekly up-to-date reports of disease risk in your local area. Reports are generated from the Plant Disease Management Platform and are based on data from your nearest participating weather station. Each update takes into account seasonal growing factors and research-based disease risk models.

The reports include information that will help you to understand the current and forecasted disease risks for myrtle rust, black spot and downy mildew. The aim is to provide guidance to help you make informed decisions on your spray programme or disease management practices.

If you would like to explore all of the NZPPI's Disease Management Platform features including date inputs, national myrtle rust risk maps, myrtle rust spray application effectiveness modelling and more, please log-in on the NZPPI website using the [Weather & Disease] button in the top right corner.

If you would like to change your default weather station for these updates, please do so through accessing the NZPPI weather and disease portal or contact jacinta@nzppi.co.nz

To unsubscribe, reply to this email at reports@metwatch.nz

In this issue:

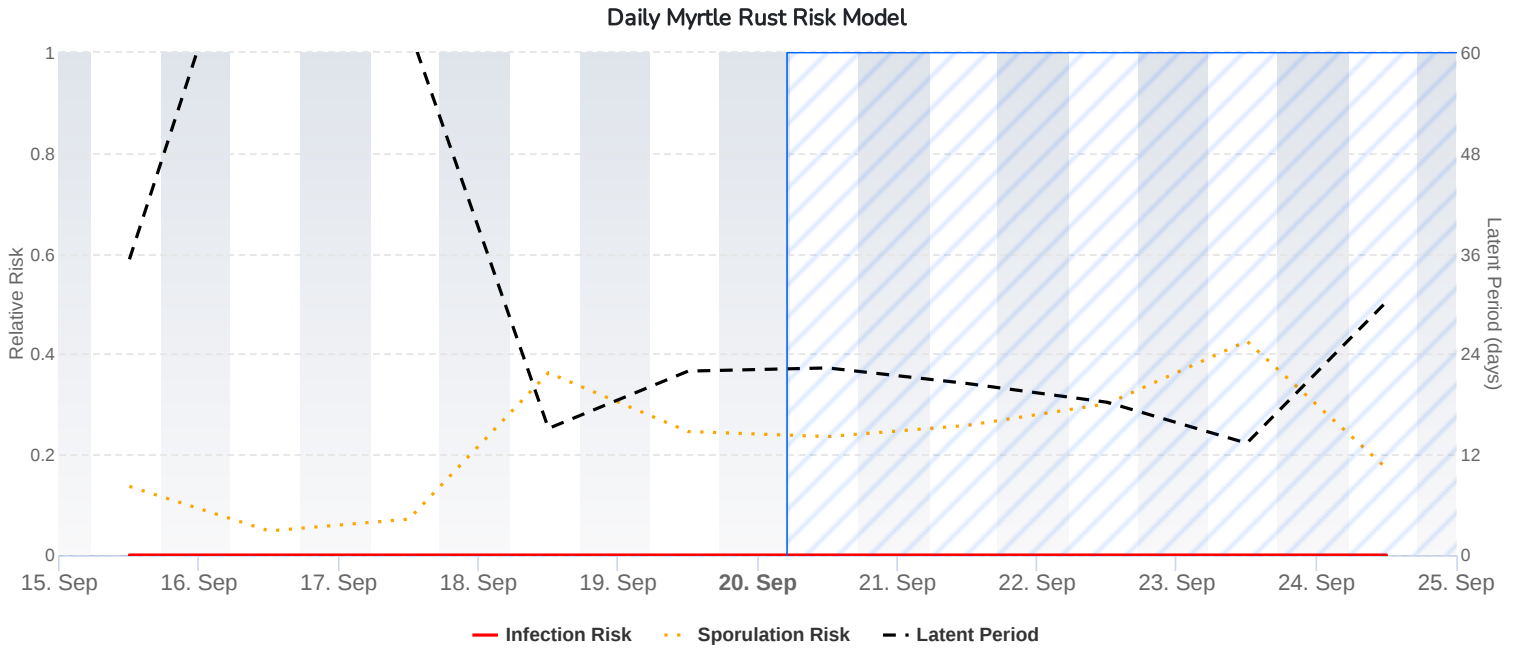
- Myrtle Rust Daily Risk
- Myrtle Rust Risk Interpretation
- Blackspot Daily Risk
- Blackspot Risk Interpretation
- Downy Mildew
- Downy Mildew Risk Interpretation



For more questions, reach out to:
Jacinta@nzppi.co.nz

Myrtle Rust Daily Risk for
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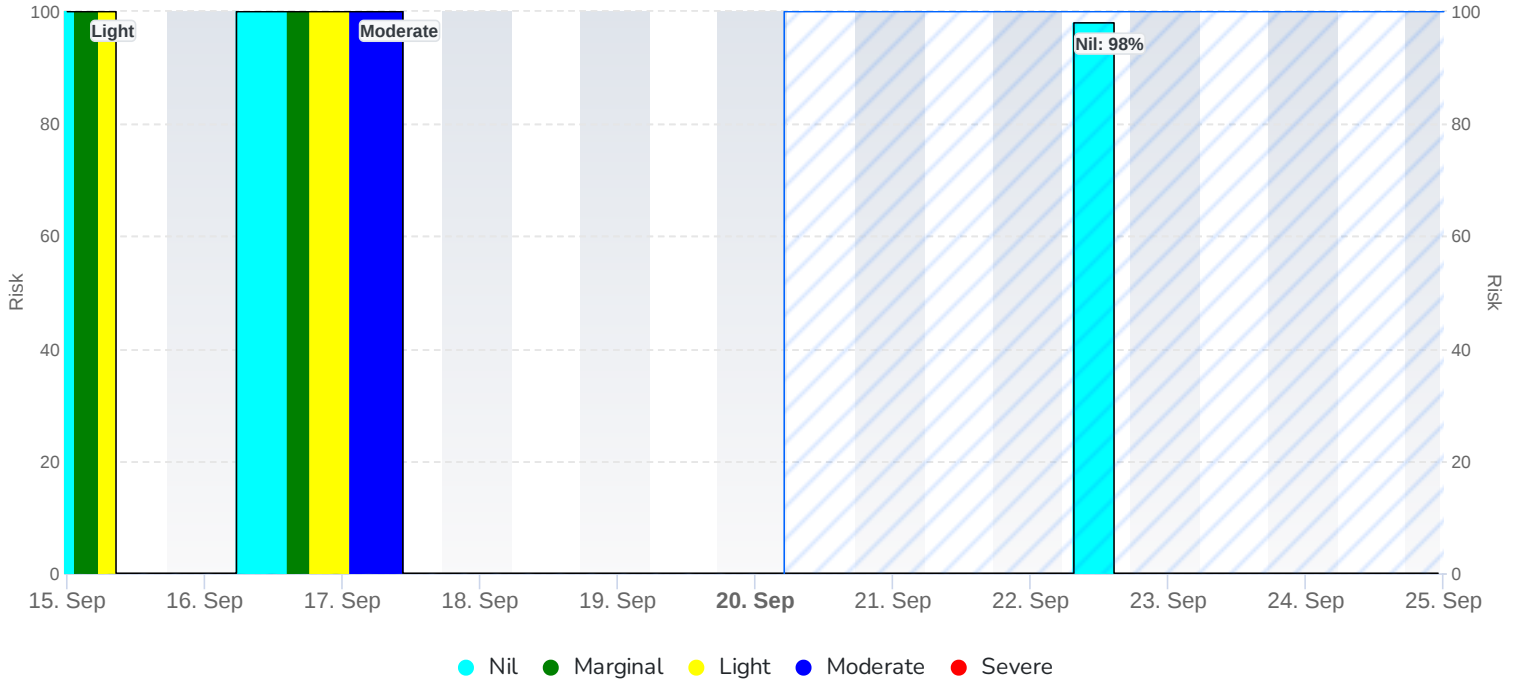
Myrtle rust, *Austropuccinia psidii*, is sensitive to seasonal weather variations. The high-risk period occurs during warmer weather with high humidity, typically in late spring to early autumn. The processes and environmental parameters that drive myrtle rust risk are represented by three risk indices: infection, latent period and sporulation. It may be necessary to apply disease management practises including fungicide treatments to protect new growth of susceptible species during high-risk periods. Alternatively, these models may indicate lower-risk periods in your area, where fungicide treatment frequency can be reduced with extended cycles. Management information can be found in the Myrtle Rust Protocols on the NZPPI website.

Process	Risk definition	Weather dependence
Infection	<ul style="list-style-type: none"> Likelihood that live spores deposited on a vulnerable host plant will germinate and infect 	<ul style="list-style-type: none"> Hourly air temperature Hours of high relative humidity per day Hourly solar radiation (small influence)
Latent period	<ul style="list-style-type: none"> Time from infection by spores to new spore-producing pustules Risk output is an instantaneous daily value of number of days at the current temperature 	<ul style="list-style-type: none"> Daily mean air temperature Decreases with increasing temperature Minimum is about 6 days at 18-27°C
Sporulation	<ul style="list-style-type: none"> Likelihood that new spores from erupted pustules are available to spread to new infection sites 	<ul style="list-style-type: none"> Daily mean air temperature

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Apple black spot/scab and rose black spot



These black spot models cover apples and roses only. This disease can infect the aerial parts of the plant, including leaves, petioles, flowers, pedicels, young shoots and bud scales. It is favoured by rainy and humid, spring and summer conditions. This model shows black spot risk on a scale from nil to severe, when disease management should be considered.

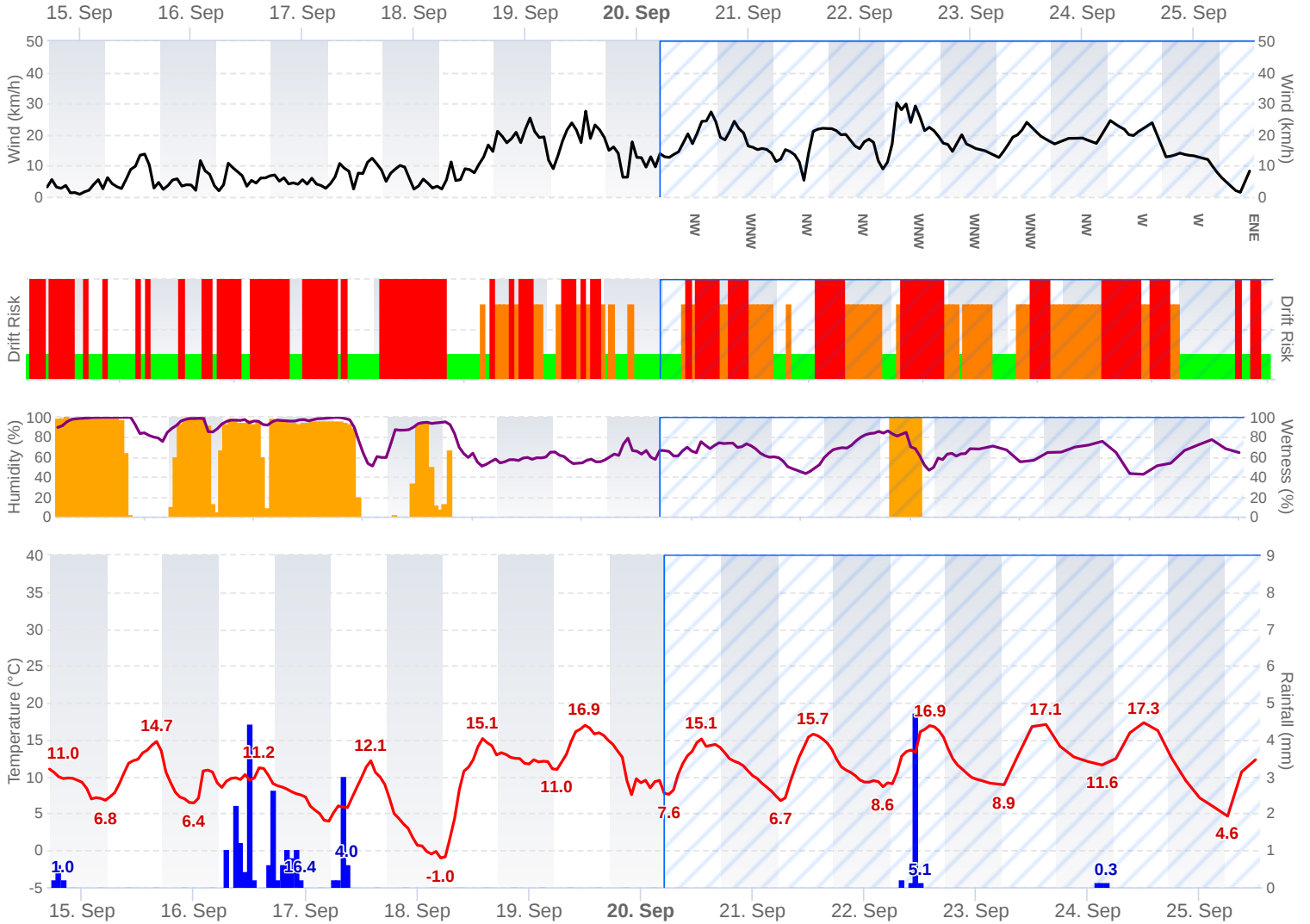
Downy Mildew Risk

- Favourable Sporulation
- Optimum Sporulation
- Favourable Germination
- Optimum Germination

Various downy mildew pathogens cause disease on a variety of plants. They are spread by wind and water. An overnight dew period provides favourable conditions for spore production followed by germination and infection. Downy mildews typically develop in cool wet weather (excluding rainfall), especially in late spring and early summer. This model shows downy mildew risk on a scale from light to severe, when disease management should be considered.

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Forecast Graphs



Wind Speed and Wind Direction

Wind speed in km/h is indicated by the line (average for the hour). Average wind direction is aggregated below.

Drift Risk

Drift Risk gives an indication of the suitability of spraying based on the other weather variables. The suitability is shown as both colour and bar height with. The options are:

- Red - Not Recommended
- Orange - Extreme Caution
- Yellow - Suitable with Caution
- Green - Best Conditions

Relative Humidity and Leaf Wetness

Relative humidity is displayed as a dark purple line. Wetness is displayed as orange bars.

Temperature and Rainfall

Average Air Temperature is shown as a red line, with daily high and low indicated in numbers. Rainfall is shown as blue bars with the total for grouped periods of connected rainfall events shown as a number.