

Red stele rot

What is it?

Red stele rot is a fungus-like disease of strawberries that is not present in Australia. The disease is caused by the pathogen *Phytophthora fragariae* var. *fragariae*.

This is one of the most important diseases of strawberry worldwide, and has caused significant losses in the USA and Europe in recent years. The disease can spread rapidly and cause significant yield loss, and requires several often expensive control strategies.

What to look for?

The clearest symptoms of this disease are underground. Root systems are usually poorly developed and rotted, with lateral roots usually rotting first. This leaves the main roots intact resulting in a rat-tail appearance to the root system.

Root tips are often rotted and grey or brown in colour. Cutting the apparently healthy white upper part of affected roots reveals red discolouration in the stele (vascular tissue), which sometimes extends up into the crown of the plant.

Aboveground, areas of infected plants may be found spreading down drainage lines or in poorly drained parts of the field. Severely affected plants may be stunted and wilt under stress. Young leaves may appear blue-green while old leaves may prematurely die. Severely infected plants may eventually die. Plants that are only slightly infected may show few or no above ground symptoms.



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Strawberry plants infected by *Phytophthora fragariae* var. *fragariae*, showing poor growth and wilting

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Strawberry runner root system infected by *Phytophthora fragariae* var. *fragariae*, showing typical rat's tail appearance



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Root symptoms of red stele rot – the red stele is visible in the cut open (longitudinally) sections of the root

Where is it found?

Red stele rot is found in most countries where strawberries are grown, although many countries report only limited distribution. It is most prevalent in cool, moist production areas. The disease is reported in many European countries, in parts of North and South America, several Middle Eastern countries, and in Asia including New Zealand.

How can I protect my farm from red stele rot?

Check your farm frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common strawberry pests so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline on 1800 084 881.

**EXOTIC PLANT PEST HOTLINE
1800 084 881**

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Want more info?

If you would like more information, or to download a copy of the Industry Biosecurity Plan for the Strawberry Industry, visit www.planthealthaustralia.com.au, email admin@phau.com.au or phone (02) 6215 7700.