

Fact Sheet:

Ceratocystis fimbriata

Ceratocystis fimbriata is a fungal pathogen that is causing significant damage to kiwifruit orchards in Brazil, with some growers reporting 50 % vine loss over the past five years. Vine death can occur extremely rapidly following infection, with Hayward on Bruno rootstock appearing to be the most affected cultivar.

Identification

Wilting is the first symptom, with complete vine collapse occurring as quickly as three days after infection. Dead vines are often adjacent to each other creating a circle of dead vines as the disease moves through soil and root systems. Browning of the xylem can be seen in infected vines moving from canes to leaders, trunks and even down to roots. Some Psa-like leaf spotting can be present.



Figures 1 & 2: Xylem browning (top) and leaf wilting (below) caused by *Ceratocystis fimbriata* on Brazilian kiwifruit orchards.

Distribution and climate range

Ceratocystis fimbriata has world-wide distribution, including New Zealand where it was first identified in 1907 causing black rot on kumara. The New Zealand strain is not pathogenic to kiwifruit, pathogenicity to kiwifruit has only been reported in Brazil.

The Farroupilha region in Brazil (where infection on kiwifruit has been observed), is 700m above sea level, has 1500mm rainfall, reaches temperatures of 30 °C in summer and 0 °C in winter, although in general there is very little winter chilling.

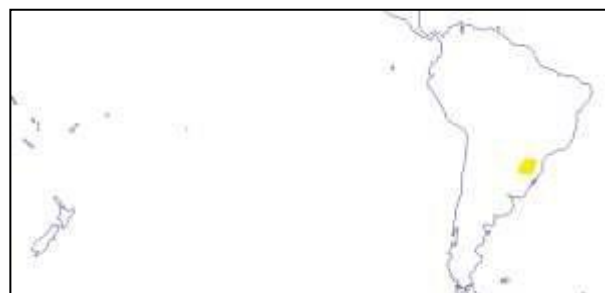


Figure 3. The Farroupilha region in Brazil, marked in yellow, where *Ceratocystis fimbriata* is causing damage on kiwifruit.

Control

Spread of the disease is through movement of infected plant material, and contaminated orchard equipment; therefore, hygiene and sourcing clean plant material are the best preventative measures.

No treatments have been effective to date with fungicides and phosphoric acids being trialled by many growers.

KVH, Zespri and Plant and Food staff have made several visits to Brazil to observe the effects of this pathogen first hand. KVH and Zespri are commissioning further research and a full literature review by an international expert to better understand the potential impacts of this pathogen on the New Zealand kiwifruit industry.

What should you do if you think you have seen this pest?

Phone MPI on 0800 80 99 66 or KVH on 0800 665 825.