

Texas root rot

Compiled by Chris Anderson (NSW DPI)

What is Texas root rot?

Texas root rot, caused by the fungus *Phymatotrichopsis omnivora*, is one of the most destructive fungal plant diseases. It is a soil-borne fungus that attacks the roots of susceptible plants. It causes sudden wilt and death of affected plants, usually during the warmer months.

Texas root rot affects over 2000 species of plants. It is an important disease of cotton as well as alfalfa, grapes, fruit trees, and many ornamentals.

What does it look like?

Plants initially wilt during hot weather as the rotted roots are unable to take up enough water and the stem may become girdled at soil level. Soon after this the plant will die. The dead leaves usually remain attached to the plant. At this stage, the roots are dead and their surface is covered with a network of white to tan fungal strands. Affected areas expand to form circular patches of dead plants.

What can it be confused with?

Sudden wilt, Fusarium wilt and lightning strike.

What should I look for?

In the field, look for patches of dead and dying plants (often with the dead leaves still attached). Patches may expand in a circular pattern during warm weather as the fungus spreads through the soil from plant to plant.

Dead plants should be pulled up and examined for the presence of white to tan fungal strands on the roots and girdling of the stem at ground level.



Cotton plants infected with Texas root rot fungus, which have developed yellow, wilting leaves

Chris Anderson, I&I NSW



Tractor driver's view of severely damaged cotton field

Chris Anderson, I&I NSW



Fungal strands on cotton root

S.D. Lyda, Bugwood.org



How does it spread?

Locally, the disease spreads from infected to healthy roots via fungal strands which grow through the soil. Long-distance spread most often occurs through the movement of soil or roots of infected host plants. The fungus does not spread readily from one location to another.

Where is it now?

Texas root rot is found in the southwest USA, Mexico, Brazil and Venezuela and has recently been reported in Libya, North Africa.

How can I protect my farm from Texas root rot?

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

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**

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Cotton crop severely damaged by Texas root rot

Chris Anderson, I&I NSW



Spore mat produced from Texas root rot infected lucerne roots

S.D. Lyda, Bugwood.org



Yellowing and wilting leaves on infected cotton plants

C.M. Kennerly

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