

Stem nematode

What is Stem nematode?

Stem nematode (*Ditylenchus dipsaci*) is a soilborne pest of oat, pulse and some pasture crops. The oat, lucerne and clover races of this nematode occur in South Australia and Victoria. The oat race infects oat, faba bean, field pea and wild oat, and has also been recorded on canola, lentil and chickpea seedlings. Stem nematode can also be highly damaging to some horticultural, ornamental and nursery plants.

Crop damage from Stem nematode has not been recorded in Western Australia.

Access to some international and domestic markets requires produce (including seed) to be tested and found free of stem nematode.

What can it be confused with?

Stem nematode damage can be similar to the effects of some herbicides.

What should I look for?

Poor emergence and establishment, stunting and distortion of plants, swollen stem bases, premature plant death, lodging and fewer seed heads. Lucerne can exhibit 'white flagging' of leaves. Symptoms usually occur in patches, but the entire crop can be affected in severe cases.

Symptoms in faba bean, canola, pea, chickpea and lentil are only seen in seedlings. Symptoms in oats can persist throughout the season. The nematodes multiply rapidly on susceptible plants under cold, wet conditions.

How does it spread?

Stem nematode is spread by infested hay, straw, weeds and other plant material, and as a contaminant of seed. It is transferred in soil by machinery, humans and stock. Stem nematode is highly resistant to desiccation, and can survive in a dehydrated state for many years.



S. Taylor, PHA

Oat plants affected by Stem nematode are stunted and distorted with swollen stem bases (plants on right)



S. Taylor, PHA

Stem nematode can cause stunting, distortion of leaves and poor establishment of canola seedlings (left) and lentil seedlings (right). Plants on the right in both images show symptoms of Stem nematode



Stem nematode tolerant oat cultivars (right) produce strong growth when Stem nematode is present, in contrast to intolerant cultivars (left)

P. Zwer, SARFI



Patchy and stunted growth in a Stem nematode infected crop

S. Taylor, PHA

Where is it now?

The oat, lucerne and clover races are present in South Australia and Victoria. The nematode usually occurs in high rainfall areas on clay soils.

In addition to the three races that occur in Australia, there are up to 30 worldwide that can attack at least 450 different plant species and many weeds.

Stem nematode is widely distributed around the world, including in Europe, Asia, Africa, North and South America, Central America and the Caribbean.

How can I protect my farm from Stem nematode?

Ensure that potentially infected material is not allowed to enter the property.

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

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



Further contact

Vivien Vanstone, Senior Nematologist, DAFWA:

Phone: 08 9368 3141
Email: vivien.vanstone@agric.wa.gov.au
AgWest Plant Labs: 08 9368 3721

Jeff Russell, WA Grains Biosecurity Officer, DAFWA, PHA:

Phone: 08 9690 2000
Email: jeff.russell@agric.wa.gov.au



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