

Transcript

3 Baron-Hay Court, South Perth Western Australia 6151  
Telephone: +61 (0)8 9368 3333 Fax: +61 (0)8 9474 2405  
Email: [enquiries@agric.wa.gov.au](mailto:enquiries@agric.wa.gov.au)

# In the video/audio are:

**Sarah Collins,** Research Officer DAFWA

# Transcript

# Understanding how to gather information in a paddock is essential to diagnosing problems as Doctor Sarah Collins, Research Officer Nematologist with the Department of Agriculture & Food WA explains. Well here we are looking at root lesion nematode and it’s really common in Western Australia. They are in about 60 percent of paddocks in WA and it is causing crop damage yield losses in about 40 per cent of paddocks in WA, so it's a really significant issue. Because nematodes are pests of the roots and they actually prune and eat the root system away it means that the plant has much less root system to deal with the stresses. So it's less able to take up water and nutrients so that's why often nematodes systems on top of the plant look a lot like nutrient, well they are nutrient deficiencies because the plant isn't getting what it requires from soil.

# Nematodes often look like as this paddock does in a lot of places a general patchiness. Nematode patches aren't very well-defined it can just look like waviness in the crop or when it's at a much higher level it can look like a distinct area of bad growth or patches like we have in this paddock. It's really not enough to walk through a paddock and just have a look around what you can see. Because we're talking about a root disease issue, you really need to dig up the roots, have a look at some healthy roots, have a look at some bad root systems and get an idea of what might be going on below the ground.

# Doctor Collins says given the impact nematodes can have on a crop identifying and managing this damaging root disease is important for growers to maximize yield potential. Nematodes actually feed on the roots, this particular nematode will actually either feed from the outside the root or they will actually travel inside the root and eat on the inside of the root system. So what you often find is a lack of lateral roots like this one here.

# And you'll find root pruning which is that lack of lateral roots. Sometimes you get some regrowth as we have here where the conditions and gotten better and the plants tried to grow back away from the issue. Often rhizoctonia and nematode are found in the same areas. So but their symptoms quite similar, there are some differences. With rhizoctonia you will often get spear tipping which is browning and tipping of the ends of the roots whereas nematodes you get that general thickening and thinning of the roots and that lack of lateral roots and really a complete lack of root system.

# Often farmers don't get a professional diagnosis done and that means that they might say, might decide that they have rhizoctonia or they may think they've got root lesion nematode but they don't know specifically what they dealing with. They need to know specifically what nematode they are dealing with if they have nematodes and distinguish if they have to deal with rhizoctonia and nematodes or just one or the other.

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