



## **Australian cereal cyst nematode (*Heterodera australis*): taxonomic woes and biosecurity implications.**

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A species of cyst nematode of the genus *Heterodera* has been known to parasitise cereals in Australia since the 1930s. It caused significant yield losses across Australia until resistance breeding brought it largely under control. Australian cereal cyst nematode has long been considered to represent *Heterodera avenae*. However, in 2002 the name *Heterodera australis* was proposed for this nematode, along with speculation that both *H. avenae* and *H. australis* might occur in Australia, and that *H. australis* might represent a native species. The name *H. australis* has generally not been accepted by Australian scientists, nor the notion that it is native. There remains some uncertainty as to the validity of *H. australis* and whether more than one species of cereal cyst nematode occur in Australia. Using a molecular approach, we examined cyst nematodes present in soil samples collected between 1989–2023 from Australian cereal growing regions. We find only one species of *Heterodera* parasitising cereals and, based on phylogenetic analyses, accept the validity of *H. australis* as the name best representative of this species. Most official biosecurity policy related to this nematode still used the name *H. avenae*, and the biosecurity implications of this are briefly discussed.

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