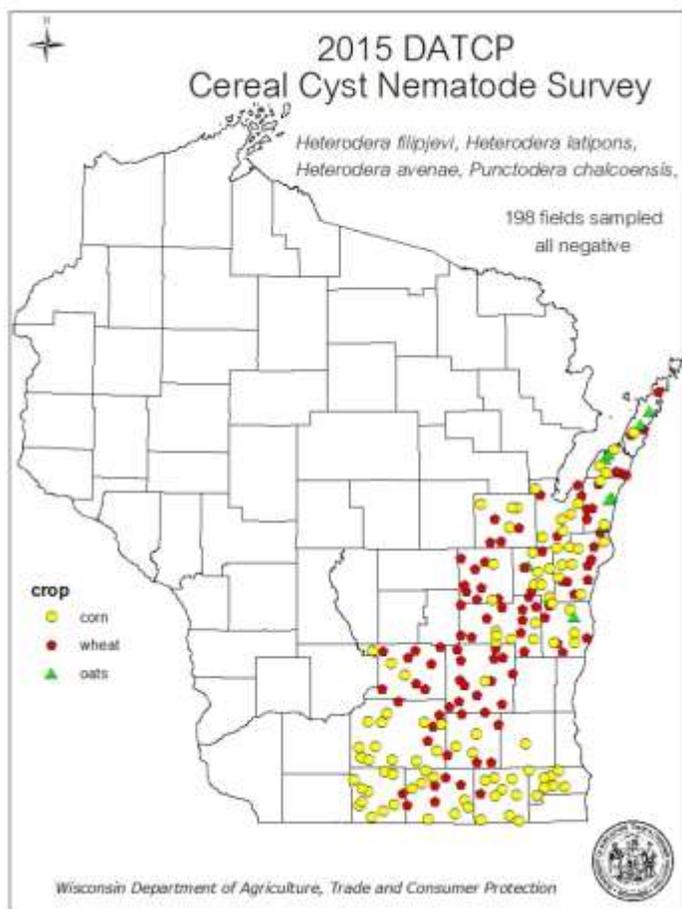


## Wisconsin Pest Survey Report

### 2015 CEREAL CYST NEMATODE SURVEY

This survey was conducted to detect exotic cyst nematodes in cereal and corn producing fields of Wisconsin. The targeted nematodes were *Heterodera filipjevi*, the cereal cyst nematode; *Heterodera latipons*, the Mediterranean cereal cyst nematode; and *Punctodera chalcoensis*, the Mexican corn cyst nematode. Any of these nematodes could potentially impact crop production, management practices and trade if they were accidentally introduced into this state.

Sampling was conducted in counties that contain the majority of the wheat acreage in the state, (Brown, Calumet, Columbia, Dane, Dodge, Door, Fond du Lac, Green, Jefferson, Kewaunee, Manitowoc, Outagamie, Racine, Rock, Sheboygan and Walworth, Winnebago). Wheat is the main host for *H. filipjevi* and *H. latipons*. Corn, the host of *P. chalcoensis* is also grown in these counties.



From April 17 to November 2, 2015, the survey collected 198 soil samples (15-20 cores per field), 98 samples were collected from corn, 91 from wheat and 9 from oat fields. Soil samples were taken to Plant Industry lab for cyst extraction and identification. All soil samples tested negative for the three exotic cyst nematodes. The map shows the surveyed field locations by crop.

28% of soil samples contained cyst nematodes often found in Wisconsin fields. Soybean cyst nematode (*Heterodera glycines*) which is a common pest in soybeans, a frequent rotational crop, was found in 29 fields. Clover cyst nematode (*H. trifolii*) was detected in 5 fields and *Cactodera* spp. in 12 fields. Clover cysts infest clovers and legumes but not corn or cereals. *Cactodera* cysts are usually found on non-crop hosts. One sample was determined to be *Cactodera*

*rosae*. Comparison of partial 28S rDNA sequence showed 100% homology to this species that was first described in 2008 by Cid del Prado on barley roots and soil in Mexico. Morphology was confirmed by the USDA Nematologist. Our knowledge of this species is very limited at this point, including if there is any effect on cereal or corn. This is a first detection of *Cactodera rosae* in Wisconsin and possibly the US.

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