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## Check Fields for Soybean Cyst Nematode

ICM News

*March 12, 2008*

**By Greg Tylka, Department of Plant Pathology**

Damage due to the soybean cyst nematode (SCN) can reduce soybean yields in Iowa by 50 percent or more, particularly under very dry conditions. And some believe the **chances of severe drought** conditions occurring in Iowa are greater for 2008 than for any year since 1990.

Most of this yield loss can be prevented by growing SCN-resistant soybean varieties in fields infested with the nematode. The resistant soybean varieties prevent SCN population densities from increasing as well as produce profitable soybean yields, thereby preserving the productivity of fields for future soybean production.

SCN often does not cause obvious symptoms to soybeans for many years after it becomes established in the field. Many infestations may go undiagnosed or the effects of the

nematode on yield are unnoticed, especially in fields with high yield potential and in growing seasons with adequate or excess rainfall.

Results of a 2007 survey of Iowa, funded by the soybean checkoff, revealed the presence of SCN in 71 percent of 205 randomly selected fields in the state. This percentage was very similar to what was found in an identical **random survey** conducted in 1995-96. The survey results indicate that many fields in Iowa in 2008 are infested with SCN.

It is not too late this spring to check fields for SCN. Samples can be collected once the snow and ice have melted and the soil drains.

**Guidelines for collecting a useful soil sample to check for SCN in the spring are as follows:**

- Ideally, the soil samples should be collected using a soil probe.
- Soil cores should be collected to a total depth of 6 to 8 inches.
- Collect soil cores from 15 to 20 places in a zig-zag pattern in a sampling area.
- If the field was last cropped to soybean, there is a greater chance of discovering SCN if soil cores are collected from under the old crop row.
- If corn was grown in the field last season, it doesn't matter if soil cores are collected from under the crop row or between the rows.
- Another good location to check for SCN is areas of the field with high pH (>7.2)
- Collect a separate set of soil cores for each 20 acres or so.
- Combine and mix soil cores, and fill a sample bag with one cup or more of soil.
- Label the outside of each sample bag with a permanent marker.

Numerous private soil testing laboratories in Iowa offer SCN analysis of soil samples.

Additionally, the Iowa State University Plant and Insect Diagnostic Clinic tests soil samples for SCN.

**Mail to:**

Plant & Insect Diagnostic Clinic  
327 Bessey Hall, Department of Plant Pathology,  
Iowa State University,  
Ames, IA 50011-1020.

The current fee for SCN analysis is \$15 per sample for samples from Iowa. Samples sent to the Plant and Insect Diagnostic Clinic should be accompanied by a completed Plant Nematode Sample Submission Form, available at [www.extension.iastate.edu/Publications/PD32.pdf](http://www.extension.iastate.edu/Publications/PD32.pdf).

*Greg Tylka is a professor of plant pathology with extension and research responsibilities in management of plant-parasitic nematodes.*

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