KNOW YOUR SCN NUMBERS

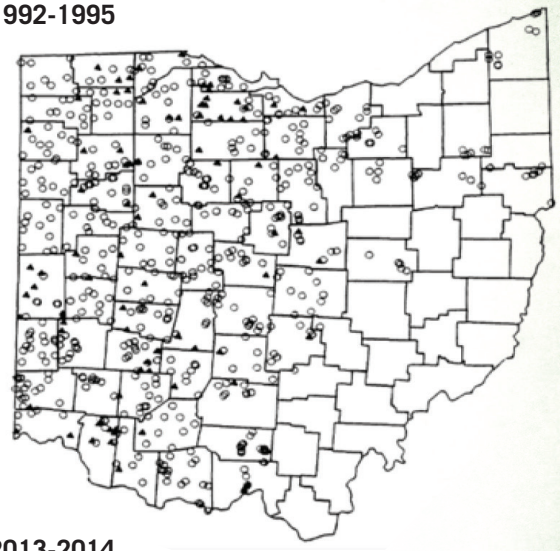
Test your soil regularly to know if your fields are infested with soybean cyst nematode.

Soybean cyst nematode (SCN) is a serious threat to soybean production, capable of causing significant yield losses. Knowing whether SCN infests your fields – and at what level – is the first step in managing the threat and protecting your soybean yields.

FAST FACTS:

- SCN is a parasitic nematode that feeds on soybean roots.
- SCN is the most economically important pest in U.S. soybeans, with yield losses estimated at $1.5 billion annually.
- Most of the time, SCN infection causes no visible symptoms. Stunted, yellow plants may be observed with severe SCN infections, but yield losses begin to occur well before that level of infestation.
- Researchers estimate that over 80 percent of soybean fields in Ohio have detectable levels of SCN.
- In fields where SCN was detected, 75 percent of the farmers were unaware of the problem.
- Selecting varieties with SCN resistance and rotating the types of varieties and seed treatments you use is the best management practice.
- Know your SCN numbers! Test your fields every six years to document whether your SCN numbers are going up, down or remaining the same.

1992-1995



2013-2014

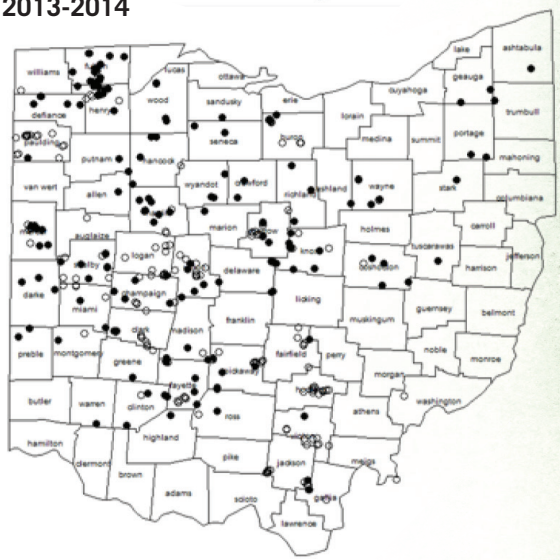


Figure 1. Distribution of SCN in soybean fields sampled from 1992-1995 and 2013-2014. Open circles show areas where SCN was not detected. Filled circles show areas where SCN was detected. (Note: 1992-1995 data originally published in Willson et al., 1996.)

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SAMPLING FOR SCN

The only way to detect SCN in your fields is to take soil samples. SCN levels within a field should be monitored every third soybean crop. Compare with past test results to know whether the SCN population is growing.

This soybean plant is infected with SCN, as indicated by the small, white cysts on the roots. Photo courtesy of G. Tylka, Iowa State University.

When to sample:

Soil samples can be collected any time the soil is not frozen. Try to avoid sampling when soil is very wet or very dry. During the soybean-growing season, the SCN population density fluctuates; therefore, soil samples should be collected around the same time of the year every six years, such as shortly after harvest.

Where to sample:

In fields where SCN has never been reported, sampling should take place in areas where SCN is most likely to have been introduced first. These areas include:

- Areas where soybean yield was lower than in previous years
- Places subject to flooding
- Field entrances and along field borders
- Places where soil pH is greater than 7.0

Horacio Lopez-Nicora, Ohio State University, explains how to properly sample for soybean cyst nematode. Watch the video by scanning the QR code or find it on YouTube at

http://www.youtube.com/watch?v=FQgg-UPQdcs&feature=youtu.be

How to sample:

1. Use a 1-inch-diameter soil probe to collect cores that will make up the sample. Soil cores should be collected at a 6- to 8-inch depth. If a soil probe is unavailable, a shovel may be used, making sure to collect soil samples at the recommended depth of 6 to 8 inches.
2. Collect 20 to 25 soil cores from an area no larger than 20 acres. Place soil cores in a bucket and mix well.
3. Place approximately 2 cups of the mixed soil sample into a plastic bag. Do not use paper bags. Try to keep soil samples cool to avoid destruction of the nematodes by high temperatures and the sun. Keep soil samples in a refrigerator until sending to a nematology laboratory for analysis.

Where to send samples:

There are many laboratories that will analyze soil samples for SCN, such as Ohio State University's C. Wayne Ellett Plant and Pest Diagnostic Clinic. For information about submitting soil samples to this clinic, visit *http://ppdc.osu.edu.*

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