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Fall Is Great Time to Sample For SCN, But Not Corn Nematodes

By Greg Tylka, Department of Plant Pathology

There is a chill in the air and thoughts are focused on harvesting corn and soybeans. Another annual fall ritual is to collect soil samples, it is important to keep a few things in mind when considering collecting soil samples for nematode testing in the fall.

Fall is NOT a good time to collect soil samples to check for corn nematodes. Corn nematode population densities (numbers) typically decrease in the latter part of the growing season. And it is not possible to calculate back in time to determine what the numbers were in the earlier part of the growing season. Therefore, low corn nematode numbers obtained from fall soil samples are not very informative. Of course, if population densities of corn nematodes are high in soil samples collected in the fall, it is reasonable to assume that the numbers were high earlier in the season as well.

The exception in this situation is with the **needle and sting nematodes**. These two nematode species occur only in soils that are at least 70 percent sand and they migrate down into the soil profile during the heat of summer. So needle and sting nematodes are best detected in soil samples collected in the spring or in the fall.

Fall is ideal time to collect soil samples to test for SCN, in contrast to the situation with corn nematode soil sampling described immediately above. Fields in which corn or soybeans were grown in 2009 can be sampled for SCN. Sample results will indicate if fields are infested with SCN or if SCN population densities are being kept in check in SCN-infested fields that have had SCN-resistant varieties grown in the past.

Guidelines for collecting soil samples to test for SCN in the fall

- · 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 zigzag pattern in a sampling area.
- 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.
- A soil sample can be used to test for SCN and for nutrient analysis.

Numerous private soil testing laboratories in lowa can test soil samples for SCN. The lowa State University Plant and Insect Diagnostic Clinic also analyzes soil samples for SCN. The mailing address of the Diagnostic Clinic is 327 Bessey Hall, Department of Plant Pathology, Iowa State University, Ames, IA 50011-1020. The Diagnostic Clinic's current fee for SCN analysis is \$15 per sample and the Plant Nematode Sample Submission form should be





Fields in which corn or soybeans were grown in 2009 can be sampled for SCN after harvest.

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