There’s Still Time to Check Fields for SCN Before 2012 Crop

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Abstract
Although the soybean cyst nematode (SCN) is one of the most persistent and destructive pests of soybean in Iowa and the Midwest, the potential to underestimate the nematode's yield-reducing effects is great because damage from SCN is not readily apparent in the field during growing seasons with adequate to excess moisture. The need to take the threat of SCN seriously was recently reviewed in an ICM News article.

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There’s Still Time to Check Fields for SCN Before 2012 Crop

By Greg Tylka, Department of Plant Pathology and Microbiology

Although the soybean cyst nematode (SCN) is one of the most persistent and destructive pests of soybean in Iowa and the Midwest, the potential to underestimate the nematode’s yield-reducing effects is great because damage from SCN is not readily apparent in the field during growing seasons with adequate to excess moisture. The need to take the threat of SCN seriously was recently reviewed in an ICM News article.

Fortunately, fields can be checked for the presence of SCN in the spring through soil sampling.

Guidelines for checking fields for SCN this spring

- Soil cores should be collected from the upper eight inches of soil.
- Do not collect samples if the fields are frozen or wet and muddy.
- The more soil cores collected and the smaller the area sampled, the more accurate the results will be.
- If corn or some other nonhost crop was last grown in the field, it doesn’t matter if soil cores are collected in the previous crop row, and it is better to collect soil cores after the previous nonhost crop rows have been destroyed by tillage.
- If soybeans were last grown in the field, collect soil cores from under the old crop rows.
- If sampling conventionally (not grid sampling), collect 15 to 20 soil cores in a zigzag pattern from no more than 20 acres. The 20-acre parcels of the field do not need to be square or rectangular; samples can be collected from zones according to the agronomic features of the field (figure 1).
- If grid sampling: collect one or two extra soil cores from every grid cell sample and combine these extra cores from the number of cells that represent approximately 20 acres.
- In fields where SCN has not been discovered, high-risk areas where SCN may be first found include high pH spots, low spots, near fence lines and other places where soil from other fields may have been introduced (figure 2).

Getting soil samples tested for SCN

Many private soil laboratories in Iowa and throughout the Midwest can process soil samples to determine SCN egg population densities. Also, samples can be sent to the Iowa State University for testing. Mail samples to:

Plant and Insect Diagnostic Clinic
327 Bessey Hall
The current fee for SCN analysis at the ISU clinic is $15 per sample for samples from Iowa. Call the ISU Clinic at 515-294-0581 to check about processing of soil samples from outside Iowa. Samples sent to the clinic should be accompanied by a completed Plant Nematode Sample Submission Form.

More information about SCN
Additional information about the biology, scouting and management of SCN, including many resources relating to SCN-resistant soybean varieties, can be found at www.soybeancyst.info and the Plant Health Initiative’s website.

Figure 1. Sampling areas can be designated according to agronomic features of the field.

Figure 2. Areas of a field where soybean cyst nematodes are more likely
to be found for the first time.

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