Fall Soil Sampling for SCN Can Pay Big Dividends in 2013

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Abstract
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Fall Soil Sampling for SCN Can Pay Big Dividends in 2013

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Now that harvest of this year’s crops is nearly complete in Iowa, it’s time to begin planning for the next growing season. For soybeans, that means taking soil samples to determine SCN population densities. Fall is a perfect time to do this.

Three reasons to sample for SCN in the fall

Fall soil sampling for SCN may reveal that the nematode was responsible for disappointingly low soybean yields in 2012, although it may be difficult to separate this from low yields due to drought conditions and other diseases and insect pests.

Fall soil sampling for SCN in fields in which soybeans will be produced in 2013 (see Figure 1) will reveal if SCN-resistant soybean varieties should be grown. If SCN has not been discovered in a field before, areas where the nematode can be first found in soil samples include near field entryways, in low spots and in high pH areas (see Figure 2).

Figure 1. Sampling a harvested corn field for SCN before soybeans are grown in 2013
Prolonged use of SCN-resistant soybean varieties with the common, PI 88788 source of resistance can lead to unintentional build-up of SCN population densities in the soil, increasing the amount of damage caused by the nematode in future years. It is a good idea to determine the SCN population density in fields where SCN-resistant soybean varieties with the common, PI 88788 source of resistance have been grown for numerous years. In this case, soil sampling for SCN every six to eight years is adequate, depending on how frequently soybeans are grown (sample after every three or four soybean crops).

**How to collect a good sample**

- collect 8-inch-long soil cores
- collect 15 to 20 soil cores per sampling area
- limit the area sampled to 20 acres or so, if possible
- collect numerous multiple-core samples from different areas in large fields
- if grid sampling, collect one or two soil cores from every grid cell and combine cores from the number of cells that represent approximately 20 acres
- collect cores from underneath crop row if soybeans were grown this season
- do not collect samples if the soil is muddy or frozen
- send samples to a private soil-testing laboratory that does SCN testing or to:
  - Plant and Insect Diagnostic Clinic
  - Iowa State University
  - 327 Bessey Hall
  - Ames, IA 50011

**More information on SCN**

For more information about the biology and management of SCN, visit [www.soybeancyst.info](http://www.soybeancyst.info) and [www.planthealth.info/scn_basics.htm](http://www.planthealth.info/scn_basics.htm). Also, copies of the new, 2nd edition of the Soybean Cyst Nematode Field guide are now available for no charge by calling the Iowa Soybean Association at 800-383-1423 or by contacting an ISU Extension field agronomist.
Greg Tylka is a professor with extension and research responsibilities in management of plant-parasitic nematode in the Department of Plant Pathology and Microbiology at Iowa State University. He can be reached at gtylka@iastate.edu or 515-294-3021.

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