SOYBEAN FACTS

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Sampling for Soybean Cyst Nematodes

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Soybean Cyst Nematodes (SCN) are microscopic roundworms that cause more economic losses that any other soybean pest. Soybean yield losses in fields severely infested by SCN can reach 100%. Yield losses as high as 10 to 15 bushels per acre can occur before symptoms such as yellowing or stunting are visible. Research has shown that yield losses due to SCN can be significantly reduced or avoided with careful management.

The first step to reducing soybean losses is to determine the severity of the infestation. The best way to do this is to collect soil samples in the fall and submit them to Diagnostic Services at Michigan State University. The costs of the laboratory analysis and management recommendations provided by Diagnostic Services are covered by the Michigan Soybean Checkoff. Your management strategies and tactics should be based on the SCN population densities found in each field. Proper sampling and handling of samples is critical to the success of your SCN management efforts. Because of this, sampling and handling instructions are listed below:

- Pick up free SCN soil sampling packets from your local MSU Extension office. The Michigan Soybean Checkoff will cover the cost of the first 20 samples per farm per year.
- Use a soil probe to collect soil samples from a depth of 6 to 8 inches.
- Collect about 50 soil cores from each field or uniform area up to 20 acres within a field. Follow a "Z" or a "W" pattern to ensure that the cores are collected randomly.
- Growers that produce soybeans and sugar beets should submit soybean root samples along with the soil sample when possible.
- If the field is being tested for SCN for the first time, sample areas where SCN is most likely to establish. These include areas where equipment enters the field, coarse-textured soils, areas having soil pH levels greater than 7 and areas where yields have been lower than expected.
- Place all the samples in a bucket and mix them together thoroughly. Place about 1 quart of soil in the plastic bag provided in the SCN sampling packet.
- Keep the samples out of the sun and cool until you can send them to Diagnostic Services or deliver them to your local MSU Extension office.
- Complete the "Grower Information" section of the SCN submittal form and include this with your soil sample.
- The results of the SCN analysis and management recommendations will be sent directly to you. Information on interpreting the results and implementing the lab's recommendations and selecting SCN resistant varieties are covered in another fact sheet.

This fact sheet was produced by the Soybean 2010 project. Soybean 2010 was developed to help Michigan growers increase soybean yields and farm profitability. Funding for Soybean 2010 is provided by MSU Extension and the Michigan Soybean Promotion Committee. Additional information about increasing soybean yields and profitability can be found online at http://web1.msue.msu.edu/soybean2010/.

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