

## **TAKE THE TEST, BEAT THE PEST: THE SCN COALITION**

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The soybean cyst nematode is a widespread and serious pest of soybeans throughout Iowa and the other soybean-producing states in the Midwest. Most infestations go unnoticed for many years because soybean cyst nematode usually does not cause obvious symptoms of damage to aboveground plant parts until the nematode population densities increase to high levels. The lack of identification of soybean cyst nematode infestations before obvious symptoms develop is unfortunate because the key to effective management of the nematode is early detection, when the nematode densities are low.

The topics of soybean cyst nematode biology, scouting, and management have been discussed by university faculty and Extension personnel at conferences, grower meetings, field days, and crop clinics in Iowa and other Midwest states for 20 years or more. Nevertheless, most fields in the region have not been tested for soybean cyst nematode. For example, less than 1 in 10 Iowa growers submitted soil samples for testing for soybean cyst nematode to the Iowa State University Plant Disease Clinic in 1997. Clearly, a new and novel means is needed to convince growers and agribusiness personnel to scout for this important soybean pest.

In 1997, a proposal titled "Coordinated, innovative education on soybean cyst nematode in the North Central Region" was developed and submitted to the North Central Soybean Research Program. This proposal sought funding to contract with a public relations firm to assist in organizing state university faculty and staff, state soybean associations and checkoff organizations, and important private soybean industry partners in delivering key messages about scouting for and effectively managing soybean cyst nematode in the Midwest. The proposal was funded in August 1997, and the SCN Coalition was officially launched at Commodity Classic in Long Beach, California, in February 1998.

### **What is the SCN Coalition?**

The Soybean Cyst Nematode (SCN) Coalition is a ground-breaking partnership of state soybean checkoff boards and land grant universities from 11 North Central states, plus selected soybean industry leaders, including seed companies and grower cooperatives. The coalition's goal is to get producers to test their fields for soybean cyst nematode, and, if they find out they have it, to take steps to manage the problem.

### **Who's Involved and Which North Central States Make Up the Coalition?**

The SCN Coalition consists of organizations from 11 states in the Midwest. Additionally, major soybean seed companies and farm cooperatives that operate throughout the region also are members of the coalition. The individual members of the coalition are listed below.

#### **Industry Partners:**

American Soybean Association  
Asgrow Seed Company  
Cargill Seeds  
CENEX / Land O'Lakes  
Countrymark  
DEKALB Genetics

Growmark  
Mycogen Seeds  
Novartis Seeds  
Pioneer Hi-Bred International  
Soybean Digest  
United Soybean Board

**State Soybean Checkoff Boards:**

Illinois Soybean Checkoff Board  
Indiana Soybean Board  
Iowa Soybean Promotion Board  
Michigan Soybean Promotion Committee  
Minnesota Soybean Research and Promotion Council  
Missouri Soybean Merchandising Council  
Nebraska Soybean Board  
North Dakota Soybean Promotion Board  
Ohio Soybean Board  
South Dakota Soybean Research & Promotion Council  
Wisconsin Soybean Marketing Board

**Universities & Extension Services:**

Iowa State University  
Michigan State University  
North Dakota State University  
Ohio State University  
Purdue University  
South Dakota State University  
University of Illinois  
University of Minnesota  
University of Missouri  
University of Nebraska  
University of Wisconsin

**Who Initiated This Effort?**

The SCN Coalition originated from funding provided by the North Central Soybean Research Program, an 11-state alliance of state soybean checkoff boards that finances soybean research projects. The 11-member farmer board designated soybean cyst nematode as a priority and approved the creation of an education and awareness program. The goal is to get producers to test their fields for soybean cyst nematode and, if they have it, to act on managing the pest. The need for delivering these messages is supported by the findings of a recent United Soybean Board survey which revealed that soybean cyst nematode is the most important soybean pest in the region and by market research conducted by the North Central Soybean Research Program in 1997 that indicated that nearly two-thirds of the producers surveyed do NOT test their fields for soybean cyst nematode.

**Why Spend Producers' Checkoff Dollars to Educate Them on SCN? Hasn't That Been Done?**

The monies earmarked for this project - nearly \$1 million annually - represent a fraction of the dollar value lost annually to soybean cyst nematode, by some counts up to 40 percent in lost yields. Most of the funding is earmarked for training industry personnel and developing educational materials to be used and distributed via coalition members, in addition to print and radio advertising - a new approach to communicating the need for soil testing. While numerous articles have appeared in the media and Extension personnel have urged growers to test for soybean cyst nematode for decades, research findings clearly indicate that more needs to be done. A different approach is necessary. With the combined efforts of the coalition members working together, more people can be reached.

**Why Does SCN Warrant an Effort Like This?**

Soybean cyst nematode is a silent thief that often goes unnoticed. Unlike diseases caused by other pathogens, soybean cyst nematode does most of its damage underground. By the time visible symptoms are apparent, the damage to yield and plant health already has been done. A perfectly healthy looking field of soybeans could be performing significantly under its potential, and a grower might never know. The real tragedy is that soybean cyst nematode can be managed and growers wouldn't have to suffer needless losses to yield and profit. And the first step to recovering those yield losses is a simple soil test.

**What are the SCN Coalition's Goals and How Will They be Accomplished?**

Ideally the goal is to have every soybean grower within the region test their fields for soybean cyst nematode. That's a very ambitious goal, but it underscores the importance of taking a simple soil test in detecting and managing soybean cyst nematode. Results of the benchmark market research study



conducted in 1997 indicated that approximately 35% of the growers surveyed had tested for soybean cyst nematode. In December 1998, the study will be repeated, and we would like to see that number increase to 40% or 45%. Within this region, an increase of just 5% represents changing the actions of 10,000 growers - and that's a lot of potential yield which could go in the bin. In the coming months and years, the SCN Coalition will use field demonstrations, strip trials, communications and advertising vehicles, as well as a wide variety of training and educational tools to encourage producers to test for soybean cyst nematode.

#### **What Messages Should Soybean Growers Take Away From the SCN Coalition's Efforts?**

- You can't tell if you have soybean cyst nematode just by looking at your fields. Aboveground symptoms are not a reliable indicator.
- The only reliable way to know if a field is infested with soybean cyst nematode is to either dig roots of soybean plants during the season and look for adult SCN females or to take a soil sample and have it analyzed by a qualified laboratory.
- If you have soybean cyst nematode, there are effective management options available right now to minimize its impact. The key to effective management, though, is early detection.

#### **Literature Cited**

Workneh, F., G.L. Tylka, X.B. Yang, J. Faghihi, and J.M. Ferris. 1998. Assessment of soybean brown stem rot, *Phytophthora sojae*, and *Heterodera glycines* in the northcentral United States using area-frame sampling: prevalence and effects of tillage. *Phytopathology*: (accepted).

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**1-877-SCN-TEST**