Now’s the time to scout for SCN

Greg Tylka
Iowa State University, gltylka@iastate.edu

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Abstract
Soybean cyst nematode (SCN) is an important, widespread soybean pest in Iowa that often goes undetected. To date, the nematode has been discovered in all but Adams, Allamakee, Ida, and Lyon counties in Iowa. The only consistent and reliable sign of an SCN infestation in the field during the growing season is the presence of adult SCN females and cysts (dead females) on the roots of infected soybean plants. Adult SCN females and cysts are small, round, and white to yellow, each approximately the size of a period at the end of a sentence.

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Plant Diseases

Now’s the time to scout for SCN

by Greg Tylka, Department of Plant Pathology

Soybean cyst nematode (SCN) is an important, widespread soybean pest in Iowa that often goes undetected. To date, the nematode has been discovered in all but Adams, Allamakee, Ida, and Lyon counties in Iowa. The only consistent and reliable sign of an SCN infestation in the field during the growing season is the presence of adult SCN females and cysts (dead females) on the roots of infected soybean plants. Adult SCN females and cysts are small, round, and white to yellow, each approximately the size of a period at the end of a sentence.

SCN females have begun to be observed on the roots of soybean this season. Consequently, now is the time to begin scouting fields for SCN by checking soybean roots for females and cysts. These females and cysts will be apparent on roots of infected plants until late summer or early fall, when the plants begin to mature. However, it is much easier to observe the nematodes on soybean roots in the first half of the season because they form on new roots that can be easily dug from the soil surrounding the base of the stem of the plant. Later in the season, adult SCN females and cysts occur on new roots that form deeper in the soil as well as farther laterally from the stem of the plant.

To scout for SCN in fields where the nematode has not yet been found, you may target fields in which soybean has been grown frequently in the past and fields where soybean yields have declined over time for no apparent reason. SCN is more prevalent in greater numbers in areas of fields with high pH (greater than 7.5). Because SCN is spread by the movement of infested soil, checking roots of plants near the entrance of fields where farm equipment enters and along fence lines where windblown soil accumulates also may increase the likelihood of finding SCN-infected plants.
Collecting soil samples from fields suspected of being infested with SCN is an alternative to digging soybean roots and looking for adult females and cysts. Soil sampling can be done at any time during the growing season. Soil samples should be submitted to a private soil testing laboratory that offers nematode testing or to the Iowa State University (ISU) Plant Disease Clinic for extraction and counting of SCN eggs. Samples sent to the ISU Plant Disease Clinic should be accompanied by a completed Plant Nematode Sample Submission Form, ISU Extension publication PD 32, available at www.extension.iastate.edu/Publications/PD32.pdf or by calling (515) 294-5247. There is a $15 charge for processing each sample. Detailed instructions on how to collect a representative soil sample for detection of SCN can be found on the back of PD 32 (also see general tips on page 133).

ISU Extension publication IPM 47s, Scouting for Soybean Cyst Nematode, illustrates the recommended procedures for scouting for SCN. Single copies of this publication are available free of charge from county extension offices or from the Extension Distribution Center by calling (515) 294-5247. Additional information about SCN can be found on the Web at www.soybeancyst.info.

Greg Tylka is a professor of plant pathology with extension and research responsibilities in management of plant-parasitic nematodes.

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**Insects and Mites**

**Aphid numbers up, but less than during 2003**

by Marlin E. Rice, Department of Entomology

Brian Lang, extension field specialist, Decorah, has been collecting weekly data on soybean aphids from northeastern Iowa during the past four years. The two tables show the percent of soybean plants with aphids and the average number of aphids per plant. Both of these categories show an aphid population that is slightly larger and occurring on more plants than at this same time last year. However, the population does appear to be much smaller than the outbreak population that we experienced during 2003.

Brian also has seen some soybeans with about 1,000 aphids per plant collected near Fort Atkinson, Winneshiek County. The co-op agronomist who found the infestation reported that only part of the field had significant activity, and the population was estimated to average 400 aphids per plant. Field conditions were very dry in this part of the state, which adds to the concern of early season soybean stress and a good environment for aphid buildup.

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Marlin E. Rice is a professor of entomology with extension and research responsibilities in field and forage crops.