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Check SCN Resistant Soybean Roots for SCN Females

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Abstract
There is some concern in Iowa these days about how well SCN-resistant soybean varieties are controlling the nematode. Reports of soybean cyst nematode reproduction on resistant soybean varieties with the common source of SCN resistance, PI 88788, have increased in recent years.

Keywords
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Check SCN Resistant Soybean Roots for SCN Females

By Greg Tylka, Department of Plant Pathology

There is some concern in Iowa these days about how well SCN-resistant soybean varieties are controlling the nematode. Reports of soybean cyst nematode reproduction on resistant soybean varieties with the common source of SCN resistance, PI 88788, have increased in recent years.

How would you know if your SCN-resistant soybean varieties are not effectively controlling the SCN populations in your fields? You can’t necessarily tell if plants are infected with SCN by looking at the crop. Up to 40 percent yield loss can occur on susceptible varieties with no visible symptoms above ground.

The SCN females are easily observed on soybean roots with the unaided eye. A crude yet somewhat effective way to check the effectiveness to resistant soybean varieties in SCN-infested fields is to look for SCN females on the roots of resistant plants. The SCN females are small, round, white objects on the roots and are about the size of a period at the end of a sentence. (See image below.)

This is the time to check

Now would be a great time to check the roots of SCN-resistant soybean varieties. Checking a few times through August would be better than just a one-time assessment.

If numerous SCN females are observed on roots of resistant soybean varieties, having an HG ("HG" for Heterodera glycines, the scientific name for SCN) type test performed on the SCN population in the field may be warranted. The HG type test is a greenhouse test that assesses SCN reproduction on the different sources of resistance used in breeding SCN-resistant soybean varieties. Detailed information about HG type tests can be found in the Integrated Crop Management Newsletter article titled What's your type?: An HG type test for SCN populations, Nov. 13, 2006.

Additional information about the biology, sampling and management of SCN can be found on the Web at www.soyscystinfo.info.

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Adult SCN females on root of an SCN-resistant soybean variety in central Iowa.