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SCN could be responsible for yellow soybean fields

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SCN could be responsible for yellow soybean fields

Abstract

In the next few weeks, areas of many soybean fields throughout Iowa will likely turn yellow. In several of these fields, the yellowing is caused by feeding by the soybean cyst nematode (SCN). SCN usually is present in fields for many years before population densities increase to a level that causes visible stunting or yellowing. When yellowing occurs, it generally appears in late July or early August. The yellowing often fades after rainfall.

Keywords

Plant Pathology

Disciplines

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INTEGRATED CROP MANAGEMENT

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In the next few weeks, areas of many soybean fields throughout Iowa will likely turn yellow. In several of these fields, the yellowing is caused by feeding by the soybean cyst nematode (SCN). SCN usually is present in fields for many years before population densities increase to a level that causes visible stunting or yellowing. When yellowing occurs, it generally appears in late July or early August. The yellowing often fades after rainfall.

There is nothing that can be done to manage an SCN infestation if it is discovered during the growing season. But it is important that fields exhibiting these yellowing symptoms be diagnosed properly this year so that if SCN is discovered, management strategies can be implemented the next time soybeans are grown in the field. The specific management recommendations for infested fields depend on the SCN population density in the field but may include some combination of growing nonhost crops, such as alfalfa and corn, and planting SCN-resistant soybean varieties.

Diagnosing SCN infestations during the growing season can be done by digging roots and looking for the small, white or yellow SCN females on the roots. Roots can be inspected throughout August. But as the season progresses, new, white, adult SCN females form on new roots that are located deeper in the soil as well as farther laterally from the stem of the plant. So be sure to dig deep and farther away from the stem to be sure to obtain some of these newer roots.

Another way to test for the presence of SCN is to collect soil samples from suspect areas of the field.

Send these samples to a qualified laboratory for testing for SCN cysts or eggs. Soil samples can be collected any time between now and the end of the growing season, or even after harvest. The Iowa State University Plant Disease Clinic offers testing of soil samples for the presence of SCN, as do several private soil-testing laboratories throughout Iowa.

For more information about SCN and how to diagnose infestations, contact your county extension office for printed publications on SCN biology, scouting, management, and SCN-resistant soybean varieties or visit soybeancyst.info [1].



[Enlarge](#) [2]

Yellow spots in field infested with soybean cyst nematode. (Greg Tylka)



[3]

Adult soybean cyst nematode females on soybean roots. (Greg Tylka)



[4]

An aerial view of damage to soybeans from soybean cyst nematode. (Greg Tylka)



[5]

When digging up roots to look for SCN females, dig deep and farther away from the stem. Soil samples also can be collected from suspect areas of the field and sent to a qualified lab to check for the presence of SCN. (Greg Tylka)



[6]

A close-up view with arrows pointing to three of the SCN females on the roots. (Greg Tylka)

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<http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2005/7-25/scn.html>

Links:

[1] <http://www.soybeancyst.info>

[2] <http://www.ent.iastate.edu/imagegal/plantpath/soybean/scystnem/julyscnyellowing.html>

[3] <http://www.ipm.iastate.edu/ipm/icm/1997/6-30-1997/isen.html>

[4] <http://www.ipm.iastate.edu/ipm/icm/node/98>

[5] <http://www.ipm.iastate.edu/ipm/icm/node/144>

[6] <http://www.ipm.iastate.edu/ipm/icm/node/145>

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