

How does your county compare to others when it comes to soybean cyst nematodes?

By Rhonda Brooks Reprinted with permission from Farm Journal

Red, white and blue are colors of patriotism in the United States, but a new map showing the presence of soybean cyst nematode (SCN) uses those colors in an altogether different way.

Soybean growers can take a quick look at the map provided by the SCN Coalition to tell whether the pest is in their counties, and thus, if they are in areas potentially at risk.

Specifically, red areas on the map indicate counties in each state where SCN has been found. Blue signals the newest counties or areas that the pest has moved into. White indicates counties or areas where SCN has not been confirmed, but they aren't necessarily SCN-free.

Some states have SCN in every county. Consider the top two soybean producing states:

 Illinois has SCN in all (102) of its counties and 88% of all soybean fields. "I tell my farmers there's a three-out-of-four chance that any field they grow soybeans in has SCN."

- Greg Tylka

director of the Iowa Soybean Research Center at Iowa State University

 lowa also has SCN in all 99 of its counties and at least 70% of all soybean fields.

"I tell my farmers there's a three-outof-four chance that any field they grow soybeans in has SCN," says Greg Tylka, director of the Iowa Soybean Research Center at Iowa State University.

He says fields with low levels of infestation might show very few symptoms of damage, but it becomes more pronounced as populations

climb.

"There's stunting and there's yellowing, but it won't be uniform in the field. It'll be patchy," he says.

"Some indirect symptoms include areas of a field with poor weed control," Tylka continues. "The soybeans might not look sick, but

Above: Soybean cyst nematode (SCN) often goes unnoticed in soybean fields until it impacts 30% of yield potential. *Photo by Iowa State University and illustration courtesy of Farm Journal*

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because of poor weed control, they are stunted, and the plants don't close over as quickly."

HOW PREVALENT IS SCN?

In 2021, Pioneer tested 439 soybean fields in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio and Wisconsin to determine SCN pressure. The company reports SCN infestations were found throughout the study area, with over 80% of fields sampled having some level of SCN infestation.

Furthermore, 27% of fields sampled had SCN population levels capable of causing heavy to severe crop damage.

Tylka says many farmers don't even realize they have SCN, which can make it a silent yield robber. "We can have up to 30% yield loss without any loss of color to the plants, height of the plants, or weight of the leaves," he explains.

"When you get into severe situations where you can see even mild stunting, or mild yellowing, it goes up from there," Tylka remarks. "Simple math shows that a 30% loss on 70 bushels of beans equates to 21 bushels. With \$10 soybeans, that equates to \$210 per acre."

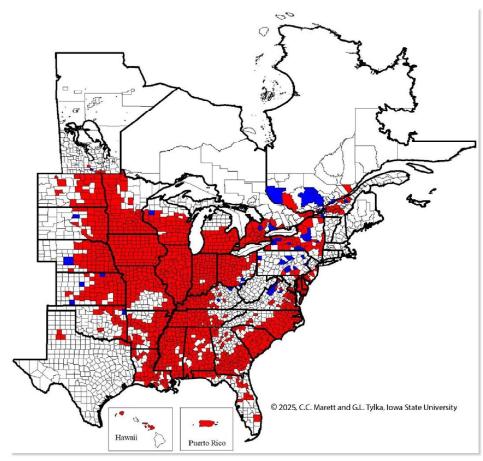
SPRING SOIL TEST

Farmers need to soil sample and have a diagnostic laboratory test done specifically for SCN to determine the population level present in the soil, a practice that can still be done this spring and even during the growing season.

According to the SCN Coalition, some state soybean boards offer free SCN testing. This changes from year to year, but in the past, states offering free SCN testing included Michigan, Nebraska, North Dakota, South Dakota and Wisconsin.

Once SCN is detected, farmers can use an integrated pest management plan, which includes varietal selection, crop rotation and seed treatment, to combat the pest.

"Farmers should rotate to corn because corn is a non-host crop,"



Above: The map illustrates known distribution of SCN in the United States and Canada. Those counties and rural municipalities first reported as infested between 2020 and 2023 are shown in blue, and those known as infested before 2020 are indicated in red. White indicates counties or areas where SCN has not been confirmed, but they are not necessarily SCN-free. Map courtesy of C.C. Marett and G.L. Tylka, Iowa State University

Tylka states. "Any year a farmer grows corn in a field, SCN egg numbers will drop."

"Some of the eggs are going to hatch out, and the little worms are going to starve," he says. "That drop can be as little as 5-10% and on up to 50%, so corn is our best tool to lower numbers."

Tylka explains that an excellent

resource for farmers is the Soybean Cyst Nematode Management Guide originally published by the SCN Coalition and recently updated and reissued by the North Central Soybean Research Program.

The fifth edition is available to read or print in .pdf format by visiting https://scn.plantpath.iastate.edu/files/inline-files/SCN Management.pdf. BCT

