Sample for the soybean cyst nematode

Source: Carl Bradley, extension plant pathologist

The soybean cyst nematode, a microscopic roundworm that feeds on soybean roots, is responsible for more yield and monetary losses each year than any other pathogen in Kentucky. It is also a pathogen that hides in fields, with growers possibly never seeing the signs of its existence.

Preliminary findings from an ongoing survey that began in 2019 show that the soybean cyst nematode is present in 84% of Kentucky soybean fields. While some producers will see signs of yellowing or stunted growth in their soybeans, most do not. Soybeans that appear healthy but are in a soybean cyst nematode-infested field will have as much as a 30% yield loss.

Management of the nematode has become more complicated recently, because the worms are developing resistance against the most commonly used form of genetic resistance that is present in at least 90% of resistant varieties available to Kentucky farmers. However, you can take steps to better manage the pathogen.

Since it is hard to predict whether your field is infested with the nematode, you need to sample your fields anytime between the end of harvest until spring. However, fall is the ideal time for sampling, because nematode field populations will be higher from feeding on the recently harvested soybean crop. It also gives you more time to make adjustments to your production plan if nematodes are found. Prioritize sampling fields where you plan to put soybeans in 2021. When sampling, make sure to include areas of the field that had poor growth and/or lower yields in the past.

Kentucky does not have a soybean cyst nematode diagnostic lab, but producers can submit samples to the University of Illinois Plant Clinic or the University of Missouri SCN Diagnostic Lab. The Kentucky Soybean Promotion Board sponsors a limited number of free soybean cyst nematode tests in each Kentucky county. Contact your local extension office for more information about the limited free testing.

If soybean cyst nematodes are found in your fields, you can take measures to lower the populations. Rotate resistant varieties. While many Kentucky varieties use the same form of resistance, rotating those varieties will help control nematode populations. Since soybean cyst nematodes mainly feed on soybeans, you can rotate away from soybeans to lower their numbers. Corn, grain sorghum or wheat are all good options. You also may consider using a variety with a nematode-protectant seed treatment. While their effectiveness is spotty, it can help reduce populations along with rotation and resistant varieties.

The Soybean Cyst Nematode Coalition is a group of scientists, extension specialists and industry representatives working to develop ways to protect soybeans against the nematode. The group is funded by the United Soybean Board. For more information about the group or the nematode, visit <https://www.thescncoalition.com/> or contact the (COUNTY NAME) office of the University of Kentucky Cooperative Extension Service.

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