

**Mid-Year Report 2021**  
**Project Title:**  
**Proactive Monitoring and Management of Soybean Cyst Nematode**

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The objectives of this project are to:

1. Offer a free SCN testing program for farmers in PA and include those results (anonymously) in workshops, field days, and conferences.
2. Raise awareness of the risk SCN poses to soybean production.

Since March 2021, we have processed approximately 54 samples for testing. Considering when we first began to sample in 2018 for nematodes, we have collected and processed 483 samples. We have written two articles on the subject of nematodes and sampling during the growing season, including:

[Scout Now for Soybean Cyst Nematode \(SCN\): The Hidden Enemy](#) (21 July 2021)

- Reprinted in: <https://agfax.com/2021/07/29/pennsylvania-soybeans-scout-now-for-soybean-cyst-nematode-the-hidden-enemy/>

[Proactive Management of Soybean Cyst Nematode \(SCN\) Requires Taking Action Now](#) (15 June 2021)

Both articles were published in *Field Crop News* from Penn State Extension. In each article we provided information about how to receive sample kits, or request sampling from fields. We also are collaborating with Extension Educators from Penn State to identify and/or sample fields for nematode testing as we move into fall.

Lastly, a poster was presented at the American Phytopathological Society's Plant Health 21 Online (a copy is provided as part of this report).

**Reference.**

Murillo-Williams, A., Collins, A., and Esker, P.D. 2021. In the search of Soybean cyst nematode in Pennsylvania. American Phytopathological Society Plant Health 21 Online.

# In the search of Soybean Cyst Nematode in Pennsylvania

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## Background

Soybean Cyst Nematode (*Heterodera glycines*, SCN) is the most damaging soybean pathogen in the US, and infestations can be symptomless until damage is severe.

SCN has been reported in just one county in Pennsylvania, which makes the Commonwealth the last frontier for SCN, otherwise widespread in the soybean belt. However, scouting and testing for SCN have not been widely adopted by farmers. Therefore, the question we want to answer is: Where is SCN?

## Methods

To determine if SCN's distribution is increasing, we established a free nematode testing program in 2019 for soybean growers in Pennsylvania. Along with the samples, participants have also provided a field history form and information about their crop and agronomic practices. A total of 264 samples from 38 out of 67 counties have been analyzed.

## What have we learned?

### Stakeholders:

- 21% have sampled or scouted for SCN in the past
- 22% percent use a resistant variety; however, just 13% of those farmers were aware of the SCN source of resistance

### SCN:

- At least one sample from four counties has tested positive for SCN, with a maximum of 125 eggs per 250 cc soil
- In coordination with the Pennsylvania Department of Agriculture, the presence of SCN has been confirmed in York County
- Lesion nematode was most frequently detected nematode (83%), followed by spiral and lance nematodes, in 72% and 50% of the samples, respectively.



*In Pennsylvania, the only county where SCN had been reported was Lancaster Co, back in 2002. As a result of the free SCN-testing program offered by Penn State Extension with support from the PA Soybean Board and the SCN Coalition, SCN has been documented in 2020 in York Co., the county with the largest number of acres planted to soybean in the Commonwealth.*



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