



David's Desk

An update on soybean health issues from
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The biggest threat

U.S. soybean producers lose at least 100 million bushels a year to soybean cyst nematode (SCN). It remains the leading cause of soybean yield loss throughout North America. Yet managing this pest is still not top-of-mind for many farmers.

SCN can be spread by anything that moves soil: wind, water, animals and machinery. It can cause substantial yield loss without showing any above-ground symptoms, and may not even be visible on the roots of infested plants.

Even when SCN symptoms appear, they're often mistaken for other problems, such as potassium or nitrogen deficiencies, iron deficiency chlorosis, herbicide injury, soil compaction or drought stress.

SCN interactions

Infection by SCN creates openings in the soybean plant's root surface that can serve as entry points for other soil-borne pathogens. That's why *Pythium*, *Phytophthora*, *Fusarium* and *Macrophomina* are commonly found in SCN-infested fields.

SCN often interacts with these other pathogens, resulting in an even bigger problem for growers. For example, research shows that SCN speeds up the development of sudden death syndrome symptoms and increases their severity, leading to greater yield loss. The same is true for SCN and brown stem rot.

The good news

Checkoff-funded researchers have spent years developing soybean varieties that are resistant to more than one pathogen, and studying the best ways to minimize yield losses by managing SCN. Their recommendations:

- **Sample the soil periodically to monitor SCN populations.** It's easier to keep numbers low than to drive down high numbers.
- **Rotate, rotate, rotate, rotate.** Rotate with nonhost crops to reduce SCN numbers. Rotate with resistant varieties to reduce yield loss. Rotate the resistant varieties you use. Rotate with tolerant or susceptible varieties only if SCN numbers are low.
- **Relieve stress.** Manage weeds, water and soil fertility to avoid compounding SCN damage.

These recommendations are explained in much greater detail in the newly updated SCN Management Guide. Developed by nematologists and plant pathologists and funded by the soybean checkoff, this guide for growers includes answers to frequently asked questions, sampling suggestions, and the

latest information based on decades of SCN research.

You can read it online or download the new SCN Management Guide at http://www.planthealth.info/pdf_docs/SCNGuide_5thEd.pdf.

That's your soybean checkoff. Delivering results.

