

Second SCN Coalition: Resistance Management and Awareness Campaign

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Principal Investigators

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Overview of project objectives

Since the launch of the SCN Coalition in 2018, NCSRP and the national soybean checkoff have successfully leveraged funding to create a robust communications program that educates farmers about soybean cyst nematode (SCN) management. Social and traditional media, events and local Extension networks have led to a significant increase in SCN awareness in the North Central region.

To date, the SCN Coalition has provided growers with focused educational materials on management tools and how to use them, such as soil sampling, SCN resistance and crop rotation. This year, the SCN Coalition has evolved into The SCN Coalition: Advancing Management. New efforts will focus on explaining research developments that answer the 'why' questions. This will lead to translating discoveries into useable tactics and continued information sharing through various communications pathways.

In addition, the SCN Coalition will share information about other economically important nematodes in soybeans, such as root-knot and reniform nematode. The expansion supports the National Soybean Nematode Strategic Plan and the needs of farmers who must manage multiple economically important nematodes and associated diseases in their soybeans. Objectives are:

- Increase awareness of greater threats to soybean yields as nematode populations adapt to the source of resistance, PI88788.
- Unify the public and private sector around straightforward management recommendations and their communication.
- Slow the erosion of the PI88788 effectiveness.

Key results

Partnering with the United Soybean Board in 2021, the SCN Coalition focused on the "Let's Talk Todes II" virtual programming, state-specific Extension activities and market research to determine the impact of The SCN Coalition to chart its course for the future. The SCN Coalition is evolving from SCN-specific messaging and educational information to include information on other plant parasitic nematodes on soybeans and soybean diseases influenced by nematodes, such as sudden death syndrome and brown stem rot.

The estimated economic impact of The SCN Coalition so far is staggering. Depending on the tools farmers use, 6-18% more are actively managing SCN than in 2015. Surveyed farmers report capturing an additional 5.1 bushels per acre, adding \$48.45 per acre to their bottom line based on the average price of soybeans of \$9.50 during that time. Depending on the level of SCN reproduction occurring on resistant soybean varieties in farmers' fields, up to 23% more yield may have been recouped by actively managing SCN.

Benefit to farmers

SCN currently causes approximately \$1 billion in soybean yield losses annually. Yield loss will increase as PI88788 is overcome by aggressive SCN populations. The SCN Coalition is helping mitigate and prevent this yield loss by increasing awareness of the new threat presented by SCN and by speaking with one industry voice on how best farmers can manage the situation.

USB National Soybean Checkoff Research Database link

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