

# THE BILLION DOLLAR PEST

**Soybean cyst nematode (SCN) has been quietly infecting soybean fields for more than 60 years.** As the No. 1 pest in soybeans, SCN has grown to cause more than \$1.5 billion in damages annually, according to the University of Minnesota Extension. When added together, the damage of the next five most destructive pathogens equals less than the annual damage caused by SCN<sup>1</sup>.



## Get to know SCN

- Microscopic parasite that destroys soybean root tissue, interrupting nutrient and moisture uptake.
- Releases up to 250 eggs every generation. Three to five generations in a single season is common.
- Egg counts can vary greatly within areas of a field, making sampling inconsistent.
- Can limit soybean yields by up to 30 percent with no visible above-ground symptoms.
- Builds population over time, leading to even larger yield stress in the future.

The industry's heavy reliance on a single source of genetic resistance, PI88788, has led SCN populations to adapt, reducing the protection from SCN-resistance. Therefore, it's crucial for growers to add novel management tools to their SCN management strategy. Universities recommend using a seed applied nematicide, such as Clariva® Complete Beans seed treatment, a combination of separately registered products.

## Drastic expansion

SCN was first found in the U.S. in North Carolina in 1954. It has since spread to all major soybean-producing states.



<sup>1</sup> Koenning, S. R., and Wrather, J. A. 2010; United Soybean Board, 2011  
Map source: C.C. Marett and G.L. Tylka, Iowa State University

## Fight SCN with NK<sup>®</sup> Soybeans and Clariva Complete Beans

Eighty five percent of NK Soybean varieties contain genes providing resistance to SCN. Apply Clariva Complete Beans to NK Soybeans for added SCN protection. Clariva Complete Beans builds on CruiserMaxx Beans seed treatment, a combination of separately registered products, with the addition of a revolutionary nematicide designed to protect against SCN. It is the only seed treatment nematicide on the market that provides a season-long lethal effect on SCN, independent of environmental conditions. Clariva Complete Beans also protects against SCN-related diseases, such as sudden death syndrome (SDS).

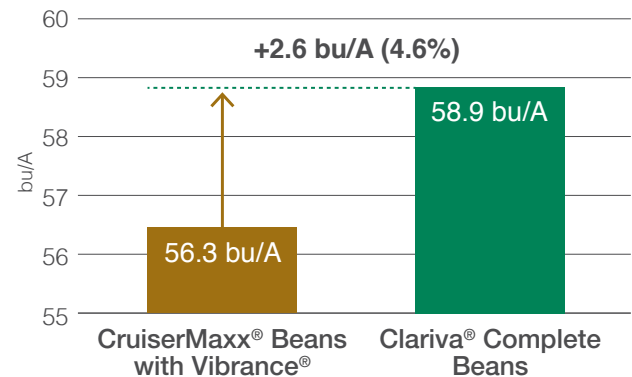
### Return on investment

Clariva Complete Beans provides a strong return on investment for growers. Applying Clariva Complete Beans to NK Soybean varieties with genetic resistance to SCN provides an additional mode of action against the pest. By inhibiting reproduction of SCN, Clariva Complete Beans adds long-term value to a comprehensive SCN management program. Clariva Complete Beans also reduces SDS damage in years of increased pressure.

## Additional benefits impacting yield

- Better long-term SCN management for future harvests
- Reduced damage from SDS, when and where it appears

### Yield increase from Clariva Complete Beans seed treatment



All trials with at least low SCN pressure (>1 SCN egg/100cc of soil)  
Source: Syngenta; 50 on-farm trials, 2013-2014

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## FROM THE FIELD

“We have a lot of fields that we are starting to see soybean cyst nematode and other problems in, and NK Soybeans are at the forefront of combating that.”

*Brian Otto, grower, Ponca City, Oklahoma*

“This year, I treated 100 percent of my soybean seed with Clariva Complete Beans seed treatment. We got about a 10- to 12-bushel advantage, so we're really pleased.”

*John Thiel, grower, Caledonia, Ohio*



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