

Clariva Complete Beans: The Missing Piece in Soybean Pest Control

Don't be fooled by the microscopic size of the soybean cyst nematode (SCN). At about a millimeter long, the SCN causes significant damage to soybean fields and jeopardizes yield potential. According to the University of Minnesota Extension, SCN is responsible for approximately \$1.5 billion in annual losses.

SCN damage has always been difficult to detect, easily misdiagnosed and hard to control. Now, Syngenta offers growers a revolutionary new nematicide to protect their crops against SCN. Clariva™ Complete Beans nematicide/insecticide/fungicide is an on-seed application of separately registered products that adds a revolutionary nematicide to the market-leading, broad spectrum seed treatment of CruiserMaxx® Beans with Vibrance® insecticide/fungicide.

What is Clariva Complete Beans?

Clariva Complete Beans provides effective season-long activity against SCN, as well as early-season insect and disease protection. With triple pest protection, the seed treatment combination enables soybeans to **start strong** each season so farmers can **grow more soybeans**.

Clariva Complete Beans is specifically tailored to Midwest growers who are battling SCN in their fields. Under these pest conditions, soybeans have a better opportunity to maximize performance and reach true yield potential. For optimal results, growers should continue to use conventional SCN management practices, such as crop rotation and planting SCN-resistant varieties.

Clariva Complete Beans at a Glance

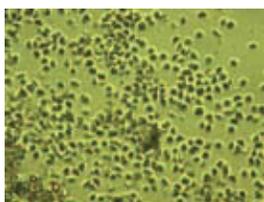
- Delivers triple protection in the form of a nematicide, an insecticide and three fungicides
- Protects from a broad spectrum of early-season insects and diseases, and offers season-long activity against SCN
- Optimizes root health and vigor, improving emergence, stand and overall performance
- Offers growers more robust and vigorous plants via the Cruiser Vigor Effect
- Protects the genetic potential of every single seed from day one
- Shows a consistent yield increase under SCN pressure across multi-year field trials that delivers favorable ROI potential to soybean farmers

Clariva Complete Beans includes an innovative nematicide that offers soybean growers the missing piece to season-long activity against SCN.

Advantages

- Acts directly and immediately on SCN, reducing its feeding and reproduction, and ultimately killing the pest
- Works and stays active under varying conditions, such as soil type, moisture content, pH, and temperature
- Uses a new mode of action against SCN, complementing the use of SCN resistant varieties and crop rotation in SCN resistance management

How *P. nishizawae* Works



P. nishizawae spores

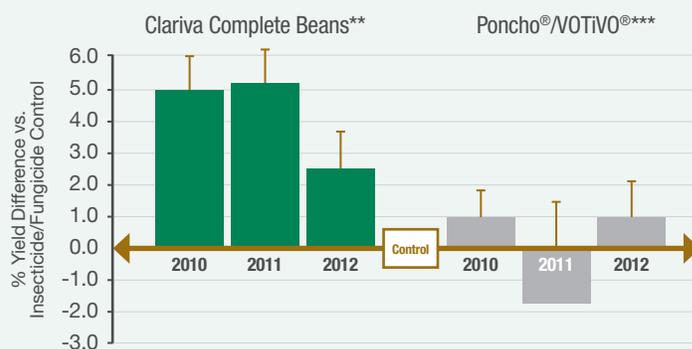
After treated seed is planted, *Pasteuria nishizawae* spores are released into the soil around the seed and developing roots. The spores attach to the outer layer of the SCN as they pass through the soil. Once attached, the nematode's body is infected with

spores of *P. nishizawae*. This process depletes the nutrients within the nematode and reduces reproduction. The nematode eventually dies and the spores are released back into the surrounding soil, restarting the nematicide cycle.

Proof of Performance

Clariva Complete Beans has been validated by third parties and is scientifically proven to increase yield in SCN-infested soils. Research shows an average of 3 to 5 percent yield advantage across three years when compared against an insecticide/ fungicide seed treatment alone.

Clariva Complete Beans vs. Poncho/VOTiVO, 3 Year Yield Advantage in High Soybean Cyst Environments*



Source: Syngenta

* >1000 SCN eggs/100 cc soil

** *P. nishizawae* with CruiserMaxx Beans

*** ApronMaxx® fungicide seed treatment on Poncho/VOTiVO

For all the latest soybean news from Syngenta, visit <http://Soybeans.FarmAssist.com>, the one-stop location for everything soybeans. And don't forget to register for the Soybean Insider to be delivered directly to your email at www.FarmAssist.com/SoyInsider. Follow Syngenta on Twitter (@SyngentaUS) or Facebook (Facebook.com/FarmAssist).

 **Clariva™ Complete Beans**

 **syngenta®**

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