

New Technology to Manage Nematodes

- Nematode damage is frequently underestimated and misattributed to other issues.
- Tioxazafen brings game changing technology to the market.
- This new technology has a proven track record of reclaiming yield potential.

THE PROBLEM

Parasitic nematodes are microscopic roundworms that live in the soil and contribute to over 10% of yield loss experienced in corn, soybean, and cotton production in the United States. Plant parasitic nematodes pierce plant roots, facilitating bacterial, fungal, and viral infections which can lead to poor plant performance.

Nematode damage is frequently underestimated and misattributed to other issues such as drought, fertility and disease stresses. Yield reducing levels can cause symptoms such as wilting, yellowing, and stunting; however, yield reducing levels – including high yield reducing levels – often have no visible symptoms at all.

THE SOLUTION

NemaStrike™ Technology brings game changing technology to the market. There are three simple yet powerful reasons why NemaStrike™ Technology is the premier choice for nematode control.

- New chemistry with a novel mode of action (Tioxazafen).
- Broad spectrum control of plant parasitic nematodes.
- Longevity – stays in the root zone for up to 75 days of control.

NemaStrike™ Technology's innovative new technology, Tioxazafen is a disubstituted oxadiazole which represents a new class of nematicidal chemistry. Tioxazafen is a targeted protein, only affecting plant parasitic nematodes

and has no cross activity. Nematodes must pierce the root for control, meaning non-plant parasitic nematodes are not affected.

This broad spectrum technology allows for control of nematodes such as but not limited to soybean cyst nematode (Figure 1), root knot (Figure 2), lesion, lance and reniform. NemaStrike™ Technology, is unique providing broad spectrum control where competitors can only offer suppression of plant parasitic nematodes.

NemaStrike™ Technology offers a efficacy timeline second to none. Its low water solubility formulation stays active in the root zone for up to 75 days. This allows for nematode control through the 2nd generation.

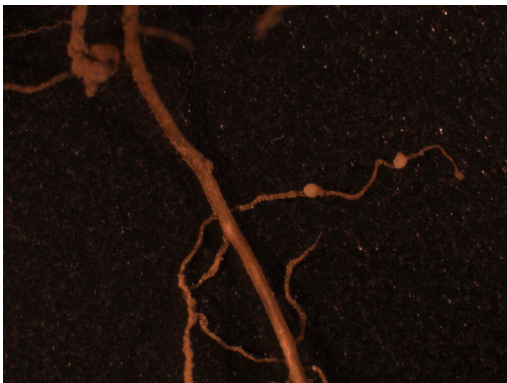


Figure 1. Soybean cyst nematode.

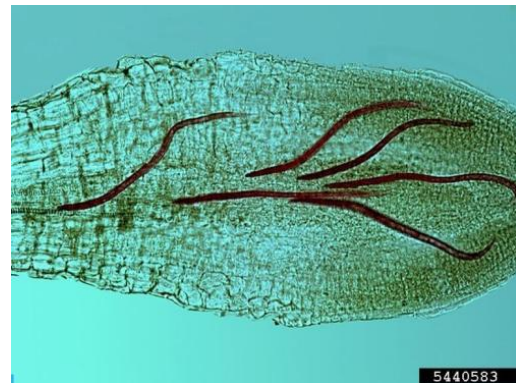


Figure 2. Root knot nematode. Jonathan D. Eisenback, Virginia Polytechnic Institute and State University, Bugwood.org

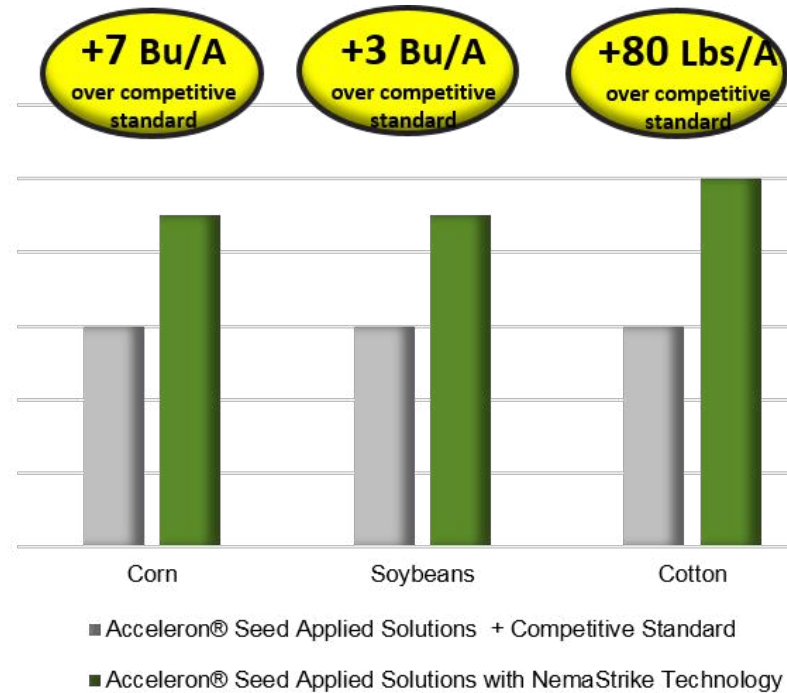


RESULTS WITH NEMASTRIKE™ TECHNOLOGY

NemaStrike™ Technology usage has a proven track record of reclaiming yield potential. Three years of data show a yield protection performance advantage of 7 bu/acre in corn, 3 bu/acre in soybean, and 80 lbs lint/acre over the competitive standard treatment.

Protecting roots is a key component to farmer success and

achieving top end yield goals. Roots allow for the transfer of nutrients and water to the plant from the soil as well as providing a secure anchor to the ground. Yield robbing nematodes are no match for NemaStrike™ Technology, giving farmers peace of mind that their fields and roots are protected.



Sources

3-Year Average Yield Protection Advantage over control, across all locations and thresholds, N=264 Trials (2014, 2015, 2016) (AR, GA, IA, IL, IN, KS, KY, LA, MD, MI, MN, MO, MS, NC, ND, NE, OH, SC, SD, TN, TX, VA, WI). Results will vary based on nematode pressure in each field.

Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible. **Always read and follow pesticide label directions.** Products with NemaStrike™ Technology are not registered in all states. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local Monsanto dealer or representative for the product registration status in your state. Acceleron® and NemaStrike™ is a trademark of Monsanto Technology LLC. ©2017 Monsanto Company. 170525070413 070117 MRD