



Insect Management Benefits from Corn Seed Treatments – Corn Belt

Growers have many variables to consider when making seed treatment selections. Seed treatments address many problems and there are several different products to choose from. Knowing the facts about different seed treatments is the first step to making the best decision for your corn crop.

What are the benefits of using seed treatments for corn?

Using seed treatments has become increasingly popular in commercial agriculture. Seed treatments have proven to be a convenient method to battle early-season insects and diseases as well as promoting early-season plant growth. Having stronger seeds means that more seeds produce a corn plant and when used correctly, corn seed treatments can often improve yield and grain quality. Establishing a healthy stand can help improve yield and grain quality.

What types of corn seed treatments are available?

Different seed treatments are used alone or in combination to address or prevent a number of pests, diseases and nutrient deficiencies and to enhance plant growth. These treatments include insecticide, fungicides, nematicides and plant growth regulators.

Why are farmers embracing seed treatments?

- Improved seedling emergence and plant health, especially in no-till or conservation tillage management.

- Viable alternative to foliar and soil applications.
- Protection against some above and below-ground pests including some that introduce fungal, bacterial and viral diseases.
- Reduction or elimination in the number of insecticide foliar sprays due to targeted protection against insect pests.
- Higher yield potential and reduction in the use of natural resources, energy, money, and labor.
- A more efficient use of pesticides and other chemicals.

What insect pests can be controlled with seed treatments?

Insects that can be controlled with a seed treatment such as Acceleron® Seed Applied Solutions with either the 500 or 1250 level of Poncho®/VOTIVO® are:

- White Grub (Figure 1)
- Wireworm (Figure 2)
- Seedcorn Maggot (Figure 3)
- Southern Green Stink Bug
- Southern Corn Rootworm
- Corn Leaf Beetle
- Thrips



Figure 1. White Grub. Photo courtesy of Alton N. Sparks, Jr., University of Georgia, Bugwood.org.



Figure 2. Wireworm. Photo courtesy of R.J Reynolds Tobacco Company Slide Set, R.J. Reynolds Tobacco Company, Bugwood.org.



Figure 3. Seed corn maggot. Photo courtesy of Maiusz Sobieski, Bugwood.org.

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In addition to these insects, certain nematodes can be controlled with Poncho/VOTIVO®. The following is a list of corn nematodes controlled or suppressed:

- Dagger
- Lance
- Needle
- Pin
- Ring
- Spiral
- Sting
- Stubby Root
- Stunt

What are my options for below-ground insect control if I do not use an insecticide seed treatment or an in-furrow insecticide?

There are no reach back insecticide treatments to control below-ground insects such as wireworm, white grub or seed corn maggot if an insecticide seed treatment such as Poncho® or an in-furrow insecticide treatment is not used at planting.

Source

Hopkins, M. 2015. Seed treatment: advantages and limitations. CropLife. <https://www.croplife.com/crop-inputs/seed-bio-tech/seed-treatment-advantages-and-limitations/>.

Legal

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. FOR CORN, EACH ACCELERON® SEED APPLIED SOLUTIONS OFFERING is a combination of separate individually registered products containing the active ingredients: BASIC plus Poncho®/VOTIVO® Offering for corn: metalaxyl, prothioconazole, fluoxastrobin, clothianidin, Bacillus firmus I-1582. ELITE plus Poncho®/VOTIVO® Offering for corn: metalaxyl, clothianidin, and Bacillus firmus I-1582; prothioconazole and fluoxastrobin at rates that suppress additional diseases. BASIC Offering for corn: metalaxyl, prothioconazole, fluoxastrobin, and clothianidin. ELITE Offering for corn: metalaxyl, and clothianidin; and prothioconazole and fluoxastrobin at rates that suppress additional diseases. BioRise™ Corn Offering is the on-seed application of either BioRise™ 360 ST or the separately registered seed applied products Acceleron® B-300 SAT and BioRise™ 360 ST. BioRise™ Corn Offering is included seamlessly across offerings on all class of 2017, 2018, 2019 and 2020 products.

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