



Understanding Soybean Seed Treatments

Overview

Seed treatments are valuable tools for protecting soybean genetic yield potential against a wide range of insects and diseases that threaten early growth. With so many seed treatment options, it is important to understand how each one works to protect your soybean crop.

What you should know: Soybean seed treatment types

- **Fungicides:** Contact fungicides protect against pathogen exposure on planted seeds. Systemic fungicides protect against soil-borne fungi that attack seeds after planting.
- **Insecticides:** Insecticide seed treatments provide an early insurance policy against insect damage, protecting seeds with contact insecticides and developing seedlings with systemic insecticides. Consider crop rotation and pest history when selecting an insecticide treatment.
- **Nematicides:** Soybean nematodes feed on soybean plant roots, restricting nutrient uptake and allowing disease fungus to invade the plant. Although most soybeans are bred for nematode resistance, heavy-pressure situations may require treatment.
- **Inoculants:** Inoculation ensures proper nodulation and prevents expensive, unnecessary nitrogen fertilizer rescue applications.
- **Plant growth regulators:** These biologically derived seed treatments include four main types:
 1. **Cytokinins** contain a phytohormone that plays a part in cell division and growth in plant roots and shoots essential to increasing root and leaf mass.
 2. **Gibberellic acid** increases germination rate and plays a role in cell division and elongation in stems and leaves.
 3. **Harpin alpha beta proteins** activate the immune system to trigger growth and defense genes, for improved plant growth.
 4. **Indole butyric acid** stimulates vigorous root formation and development and increases cell elongation.



Each type of soybean seed treatment—fungicides, insecticides, nematicides, growth regulators and inoculants—has specific benefits for a strong start.



30-Second Summary

- Seed treatments offer protection for the genetic potential of soybeans against diseases and pests, protecting the return on your seed investment.
- Understanding fungicides, insecticides, nematicides, plant growth regulators and inoculants, or combinations of these, will allow you to evaluate the protection your plants require and select an appropriate treatment.

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