

# FACTS ABOUT SEED TREATMENTS



american  
seed trade  
association

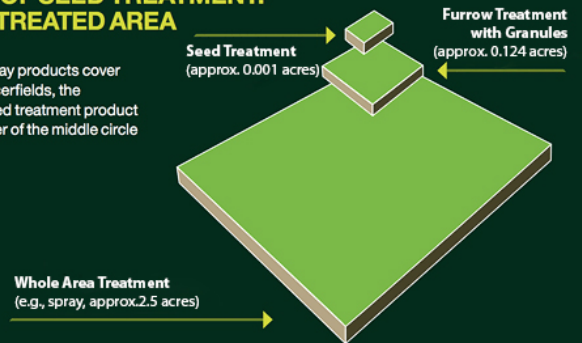
Seed treatments provide farmers with an economical and environmentally sound means of protecting seeds and seedlings against early-season insect pests and diseases. This results in stronger and healthier plants and higher crop yields, while allowing for more accuracy and efficiency in crop production inputs. The earliest reported use of a seed treatment dates back to 60 A.D., when wine and crushed cypress leaves were used to protect seed from storage insects.

## Did you know?

According to AgInforatics research, if neonicotinoids were not available, one pound of neonicotinoids would be replaced with nearly five pounds of older chemicals, resulting in an increase in application rate per acre of 375-percent and hundreds of millions of dollars in additional costs to farming operations.

## BENEFITS OF SEED TREATMENT: SMALLER TREATED AREA

If conventional spray products cover an area of 1.5 soccerfields, the corresponding seed treatment product only takes a quarter of the middle circle of the same field.



Source: Bayer

## What are seed treatments?

Seed treatments are the precise application of biological organisms, products and/or chemical ingredients to suppress, control, or repel plant pathogens, insects, or other pests that attack seeds, seedlings or plants. Commonly used seed treatments are insecticides, fungicides and nematicides.

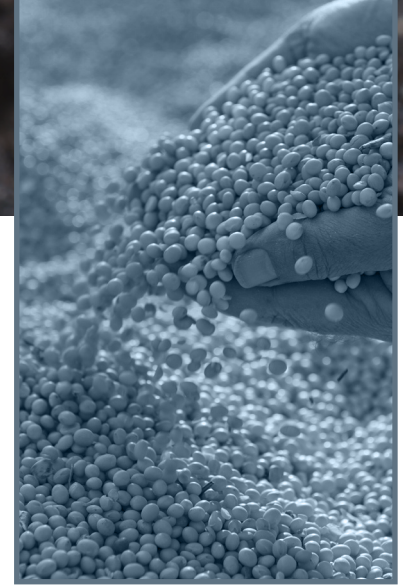
## What are their benefits?

Seed treatments play a critical role in agriculture and the production of healthy crops. Because of their targeted accuracy, they selectively control pests, while ensuring beneficial insects remain available to keep other potential insect pests in check. Their safe and targeted use provides an efficient use of pesticides and reduces the amount of chemicals used on large areas of farmland. Because they're planted below the soil surface, treated seeds help minimize the exposure of pesticides to off-target plants and animals.

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## How are treated seeds regulated?

All pesticides used as seed treatments are approved for that use. Pesticides undergo roughly 100 safety studies before they are approved. As EPA reviews the use of a pesticide for specific crops, the approval of the use of the pesticide as a seed treatment for those crops is part of that registration process. Since seed is already regulated by USDA and individual states, further regulating seed as a pesticide would put a tremendous burden on growers, with no additional proven benefit to health or the environment. Many other products are regulated in this manner, such as lumber, telephone poles and kitchen sponges.



## Seed treatments are safe.

Seed treatments, such as those with neonicotinoid pesticides, undergo rigorous testing and EPA review prior to being permitted to be used commercially. The EPA carefully considers effects on many non-pest organisms, including honey bees, when they approve new insecticides for use. EPA data has shown low risk to pollinators from treated seed in recent assessments.

As an example, hundreds of independent studies on neonicotinoids and bees indicate that when used according to label instructions, seed treatments are not harmful to bee colonies. At normal field doses, the potential exposure to bees is far below levels that would cause concern. Most experts agree that many factors such as parasites, diseases, inadequate nutrition or lack of available forage, adverse weather, pesticides and hive management practices play a role. The Varroa mite is the "single most detrimental pest of honey bees," according to the USDA.

## Do farmers have the option to buy non-treated seed?

Yes. Growers make that decision with their seed supplier and, as a result, seed companies plan their production and offerings in advance of the growing season. As an example, corn seed companies start treating seed in September and usually apply their standard treatment package, unless there are specific orders for different treatment recipes. For this reason, farmers are encouraged to request seed early in the fall to maximize their treatment options. And, of course, farmers have the option to "shop around" since not all seed companies offer the same products.



## Why have farmers embraced seed treatments?

- Improved seedling emergence and health, especially in no-till or conservation tillage situations.
- Viable alternative to foliar and soil applications.
- Protection against some above and below-ground pests including some that introduce fungal, bacterial, and viral disease.
- Reduction or elimination in the number of insecticide foliar sprays due to targeted protection against insect pests.
- Higher crop yields, and reduction in the use of natural resources, energy, money and labor.
- Protection for seeds and seedlings against some of the risks associated with early season planting pests.
- A more efficient use of pesticides and other chemicals.

Seed treatments are an important part of farmers' integrated pest management plans. Seed treatments have been rigorously tested and proven to be a safe and effective tool contributing to the more efficient production of food, fiber and fuel.