

# Treated Seed Best Management Practices (BMPs)

February 2023

BMPs will be updated with neonicotinoid treated seed specific guidelines in accordance with the statutory timeline (March 2024)

Seeds are regulated by Federal Seed Act. Vermont law, similarly to the Environmental Protection Agency (EPA), classifies seeds treated with pesticides as “treated articles”, and therefore exempt from the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Conventional corn and soybean seeds may be treated with pesticides (insecticides and fungicides) to protect seeds and young seedlings from insect pests and diseases that may exist in the soil during vulnerable early developmental stages. Using pesticide treated seed can be insurance for Vermont farmers to ensure seeding development, limit potential crop loss from seed failure, and maximize the performance potential of each seed. However, there are potential risks of environmental and pollinator exposure to these pesticides due to seed treatment dust drifting during planting, off target movement in the environment, or contact with soil or parts of the plant grown from treated seed. The Agricultural Innovation Board (AIB), in cooperation with Vermont Agency of Agriculture, Food and Markets (VAAF), has developed the following BMP guidelines for pesticide treated seed to help mitigate this risk. In Vermont X active ingredients are registered for seed treatment.

## Overview of Seed Treatment

The definition of seed treatment is the application of biological organisms/products and chemical ingredients to seed to suppress, control, or repel plant pathogens, insects, or other pests that attack seeds, seedlings or plants. Other products such as inoculants, herbicide safeners, micronutrients, plant growth regulators, seed coating materials, colorants, etc. may also be applied to the seed. Seed treatments can reduce the environmental and public health impact of production by decreasing the number of pesticide spray applications and reducing exposures to non-target species, including humans and pollinators. Treated seed is intended for planting and may not be used for food, feed, or oil purposes. (ASTA-CLA, 2017)

These BMPs are intended for those who plant treated seed or are considering using treated seed in their crop production.

## Important General Practices for Use of Treated Seed

It is important to understand that use of treated seed, including the handling, storage, planting and transport, is comparative to the use of pesticides. Therefore, it is important to consider the following critical practices to reduce human and environmental exposure:

- Practice Integrated Pest Management (IPM) to reduce pest risk and determine what treatments are warranted when choosing seed
- Follow the label instructions and precautions for safe use and storage practices
- Properly dispose of excess treated seed and empty seed containers

- Know weather conditions (wind speed and direction), presence of pollinators, hive locations, adjacent aquatic habitats, nearby flowering habitats (including weeds and other plants at field edges)
- Ensure treated seed doesn't enter commodity grain channels

### Safe Handling and Transport of Treated Seeds

- Read and follow treated seed tag safety language, as well as equipment manufacturers' safety documentation for information about required and recommended personal protection Equipment (PPE)
- Handle treated seed bags carefully in order to reduce seed abrasion, dust generation, and spills

### Storage of Treated Seeds

- Protect stored seeds from direct sunlight, extreme temperatures and excessive moisture to reduce breakdown of seed treatment
- Do not allow children, pets, livestock, wildlife, or unauthorized people to have access to treated seeds
- Store treated seed away from food and feedstuffs

### Planting of Treated Seeds

- Assess planting equipment to ensure proper functioning, calibration and maintenance. Check if planters can be modified according to recommendations to minimize abrasion and dust drift during planting
- Follow all instructions on seed bag label and planter equipment manual
- Plant treated seed during appropriate weather conditions. Monitor wind speed and direction to reduce dust drift
- Use appropriate lubricant at recommended rate to minimize dust. Avoid some lubricants, like talc and graphite, which can increase seed abrasion and dust. (Regulations exist in Canada permitting only dust reducing fluency agents and revoking the use of talc and graphite)
- Survey for the presence of wild and commercial pollinator populations, flowering weeds or crops, and other sensitive areas, like surface water, in the field and surrounding areas.
- Remove by mowing or other method, flowering plants within the field and adjacent to the field before planting or avoid planting seeds treated with pollinator sensitive insecticides when these plants are blooming.
- Fill planter in the field at least 10 yards inside the field to be planted, away from wild and commercial pollinator hives, habitats, or flowering crops or weeds.
- Plant treated seed into the soil at no less than the recommended or required minimum depth. Thoroughly cover exposed seeds as they may pose a hazard to wildlife.
- Cover or collect treated seeds spilled during loading and planting (such as in row ends).
- Clean planter equipment away from sensitive environmental areas and don't use compressed air as it may increase dust drift
- Excess rinse water from cleaning of equipment can be applied to a field for which the active ingredient is registered as long as applied concentration is not above the label recommendation.
- Do not dump rinse water on soil, surface water, groundwater, or in septic systems.
- Store seed intended for future plantings in its original seed lot containers

## Disposal of Excess Treated Seeds

- Follow seed label for allowable use or disposal of small quantities of treated seed. Options may include; planting in fallow or non-cropped areas, double planting in turn rows or within part of field, or bury in an appropriate place away from surface water or groundwater and bedrock.
- Dispose of seed packaging, containers, and filters, including any left over dust in accordance with label and appropriate local municipal hazardous waste requirements.
- Consult [Vermont Department of Environmental Conservation Waste Management and Prevention Division](#) to check disposal plan is in compliance with appropriate regulations

## References and Resources\*

EPA Endangered Species Act (ESA) workplan update: Nontarget species mitigation for registration review and other FIFRA actions, November 2022. [US EPA – ESA Workplan Update – Nontarget Species Mitigation for Registration Review and Other FIFRA Actions](#)

American Seed Trade Association (ASTA) – Crop Life America (CLA) The Guide to Seed Treatment Stewardship. [ASTA SeedGuide Farmers Update2021.pdf \(seed treatment guide.com\)](#)

Health Canada, Pollinator Protection and Responsible Use of Insecticide Treated Seed. March 2015. [treated seed semences traitees-eng.pdf \(canada.ca\)](#)

Honey Bee Health Coalition, Best Management Practices (BMPs) for Pollinator Protection in Field Corn. February 2020. [HBHC Corn 022020.pdf \(honeybeehealthcoalition.org\)](#)

Honey Bee Health Coalition, Best Management Practices (BMPs) to Protect Honey Bees and Other Pollinators in Soybean Fields. February 2020. [HBHC Soybean 022020.pdf \(honeybeehealthcoalition.org\)](#)

Minnesota Department of Agriculture, Stewardship Guidelines and Best Management Practices for Neonicotinoid Insecticide Treated Seed. May 2019. [Stewardship Guidelines and Best Management Practices for Neonicotinoid Insecticide Treated Seed \(state.mn.us\)](#)

Minnesota Pollution Control Agency, Disposal of Treated Seeds. April 2022. [Treated Seeds \(state.mn.us\)](#)

Stoner, K. Connecticut Agricultural Experiment Station. Best Management Practices for Farmers Using Seeds Treated with Neonicotinoid Insecticides. [BMPHandlingNeonicotinoidTreatedSeeds.pdf \(ct.gov\)](#)

\*Disclaimer: it is advised that some of the statements given in these references may not be applicable in Vermont or the U.S. If you have any questions on the content of these references, contact [VAAF.M](#).