



Current Report

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WHEAT SEED TREATMENTS FOR DISEASE AND INSECT CONTROL 1981

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Diseases Controlled: Seed Treatment with a fungicide will provide protection against many seed and soil borne pathogens that cause seed rots and seedling blight. Treating seed with a fungicide is especially beneficial for prevention of loose smut and covered smut (usually called bunt). To obtain adequate protection, it is absolutely essential for all seed to be thoroughly covered with fungicide. Many grain elevators or custom applicators have equipment with metering devices for treating seed wheat. Also, there are commercial applicators that can be attached to a grain auger that will meter the fungicide onto the wheat seed as it is being augered from the truck to the drill. Some fungicides can be used as drill-box treatment, however special care must be taken to be certain that all seed is thoroughly covered.

Insects Controlled: There are a number of insects in the soil which either attack the seed itself or the plant as it is developing. Under these conditions, seed treatment will often prevent a stand reduction. It is important to note that seed treatment with Heptachlor will control true wireworms, false wireworms and minor soil insects. Seed treatment with Lindane will control wireworms and minor soil insects. On the other hand, seed treatments will not control white grubs, lesser corn stalk borers, cutworms and

other large soil insects.

It is generally a good policy to include an insecticide and a fungicide in a seed treatment. Then one has built-in protection against a variety of diseases and insects.

Remember, all seed treatments contain a color or dye in the product so that one can recognize that it is treated seed. It is important to read the label carefully to be sure that the treated seed contains the specific chemical that will control the disease and/or insect that is a problem.

As noted above, the insecticides that are used for seed treatment are Heptachlor and Lindane. Methoxychlor is often applied to seed by the grower or distributor, but its purpose is to control insects that might injure seed in storage and not to give protection once seed is placed in the soil.

A reduction in germination has occurred in Lindane-treated seed when stored for awhile. Therefore, it is a good idea to plant Lindane-treated seed shortly after application of this chemical.

Drill-box treatment is a favorite method of applying an insecticide to seed since, at present, there are very few commercial establishments that will treat seed with an insecticide on a custom basis.

Fungicides:

Trade Name	Chemical	Formulation	Rate of Formulation	Diseases Controlled
*Arasan 50-Red	Thiram 50%	Powder	2 oz./bu.	Seed decay, Seedling blight and Bunt
**Arasan 70S	Thiram 70% + Methoxychlor 2%	Powder	1 1/3 oz./bu.	Seed decay, Seedling blight and Bunt
Captan 30-DD	Captan 30%	Flowable Fluid	1.52 fl. oz./100 lbs.	Seed decay, Seedling blight and Bunt
Evershield RTU 1050	Carboxin 5% Thiram 10%	Flowable Fluid	4.36 fl. oz./100 lbs.	Seed decay, Seedling blight, Loose smut and Bunt
*Granox N-M	Maneb 50% HCB 10%	Powder	1 oz./bu.	Seed decay, Seedling blight and Bunt
Manzate 200 or Dithane M-45	EBDC 80%	Powder	2 oz./bu.	Seed decay, Seedling blight and Bunt
Nusan 30 E.C.	TCMTB 30%	Flowable Fluid	3/4 fl. oz./bu.	Seed decay, Seedling blight and Bunt
Terra-Coat L205	PCNB 23.2% + Terrazole 4.8%	Liquid	2 fl. oz./bu.	Seed decay, Seedling blight and Bunt

Fungicides (Continued)

Trade Name	Chemical	Formulation	Rate of Formulation	Diseases Controlled
Terra-Coat LT-2	PCNB 24%	Liquid	2 fl. oz./bu.	Seed decay, Seedling blight and Bunt
*Terra-Coat SD205	PCNB 20% Terrazole 5%	Powder	2 oz./bu.	Seed decay, Seedling blight and Bunt
Thiram-30	Thiram 30%	Flowable Fluid	2.53 fl. oz./100 lbs.	Seed decay, Seedling blight and Bunt
Orthocide 4F Seed Protectant	Captan 35.2%	Flowable Fluid	1 3/4 fl. oz./100 lbs.	Seed decay, Seedling blight and Bunt
*Orthocide Vitavax 20-20	Captan 20% Carboxin 20%	Powder	4 oz./100 lbs.	Seed decay, Seedling blight and Loose smut and Bunt.
Vitavax-200	Carboxin 17% Thiram 17%	Flowable Fluid	3-4 fl. oz./100 lbs.	Seed decay, Seedling blight, Loose smut and Bunt
Vitavax	Carboxin 34%	Flowable Fluid	2-3 fl. oz./100 lbs.	Specific for Loose Smut Control
*Vitavax 25 DB	Carboxin 25%	Powder	4-6 oz./100 lbs.	Seed decay, Seedling blight and Loose Smut. For Bunt control, use higher rate.

*Fungicides that can be used as drill box seed treatments.

**Arasan 70S should be applied as a slurry by means of a slurry type treater.

Insecticides:

Trade Name	Chemical	Formulation	Rate of Formulation	Insects Controlled
Dyco Wayman Plus No. 401	Heptachlor 31.6%	Powder	See Label	True Wireworms and False Wireworms
Velsicol Heptachlor	Heptachlor 23.29%	Powder	See Label	Same as above
Drinox H-34C NOR-AM	Heptachlor 24.8%	Liquid	See Label	Same as above
Heptachlor 2 Loveland Ind	Heptachlor 23.29%	Liquid	See Label	Same as above
Farmland 25% Lindane	Lindane 25%	Wettable Powder	See Label	Wireworms
WHB Lindane 25 WH Blokas	Lindane 25%	Planter Box treater	See Label	Same as above

Combination Fungicides and Insecticides:

Trade Name	Chemical	Formulation	Rate of Formulation	Pests Controlled
AGSCO DB-Green	Maneb 40% Lindane 18.75% HCB 10%	Powder	2 oz./bu.	Seed decay, Seedling blight and Bunt, Wireworms
Granol N-M	Maneb 50% Lindane 18.75%	Powder	2 oz./bu.	Same as above
Isotox Seed Treater (F)	Lindane 25% Captan 11.8%	Powder	2 oz./100 lbs.	Same as above

Cautions: All seed treatment materials are poisonous, or toxic. Mark treated seed and do not use for feed or food. Avoid inhaling dusts or fumes when treating. For proper precautions, always read the product label before applying the chemical. Read the label for restrictions on livestock grazing.

The information given herein is for educational purposes only. References to commercial products or trade names is made with the understanding that no endorsement of a particular brand is intended by the Cooperative Extension Service. August 1981. All suggested chemicals cleared at this date. Publication will be revised when new chemicals become available or changes are needed.