

Grain Protectants – Two New Products Available in 2022

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As wheat harvest approaches, it is important to have a plan in place to maintain the grain as near to harvest quality as possible because grain quality never improves during the storage period. It is exciting that there are two new grain protectants available for use this year.

However, before using a grain protectant on newly harvested wheat, start your storage plan with sanitation by conducting a thorough cleaning of all equipment that may contact the grain and preparing your storage facility. More information can be found on these topics in OSU Extension Fact Sheet BAE-1112, *Preparing Grain Bins and Flat Storages Prior to Harvest or Incoming Product Storage* (<https://extension.okstate.edu/fact-sheets/preparing-grain-bins-and-flat-storages-prior-to-harvest-or-incoming-product-storage.html>).

Grain protectants help in preserving the grain from insect damage. Grain protectants are insecticides applied to the grain as it is being loaded into the storage structure. Apply the insecticide to a moving grain stream at the bottom of the bucket elevator, auger, or belt to ensure the insecticide contacts as many grain kernels as possible while the grain is moving to its final destination.

There are two new products available for use this year and both are all-in-one products that do not need tank-mixing. These combination products are Gravista™ Insecticide and Centynal™ Synergized Insecticide.

Gravista™ Insecticide is a 3-in-1 product containing an adulticide, an insect growth regulator (IGR) and a synergist. It is composed of deltamethrin, s-methoprene, and piperonyl butoxide. This product kills adult insects and exposed larvae and breaks their life cycle (function of the IGR). It is effective against lesser grain borers, rice weevils, maize weevils, granary weevils, sawtoothed grain beetles, red flour beetles, confused flour beetles, Indian meal moths, and other listed pests. This product has long-term residual control and can be applied directly to a grain stream, as an empty-bin spray, and as a barrier perimeter treatment. Commodities labeled for treatment include barley, corn, oats, popcorn, rice, rye, grain sorghum, and wheat.



Centynal™ Synergized Insecticide is an emulsifiable concentrate that contains deltamethrin and piperonyl butoxide (adulticide and synergist). It provides effective knockdown and control of some of the toughest stored product insects including lesser grain borers, rice weevils, maize weevils, granary weevils, sawtoothed grain beetles, red flour beetles, confused flour beetles, Indian meal moths, and other listed pests. This product is for use directly on grains, in empty bins, and for perimeter treatments. It is labeled to treat barley, corn, oats, popcorn, rice, rye, grain sorghum, and wheat.



Lesser grain borers (Photo by Edmond Bonjour)



Rice weevil (Photo by Edmond Bonjour)



Indian meal moth (Photo by Edmond Bonjour)

These two products add to the arsenal of other grain protectants that are available for use on stored products. It is wise to rotate grain protectants with different active ingredients to avoid developing resistance in your insect populations. Additional information on other labeled grain protectants can be found in OSU Extension Fact Sheet EPP-7098, *Grain Protectants and Top-dress Treatments for Stored Grain* (<https://extension.okstate.edu/fact-sheets/grain-protectants-and-top-dress-treatments-for-stored-grains.html>).