

STORAGE FACILITIES AND STORED GRAIN INSECT MANAGEMENT

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INSECTICIDE	FORMULATION AND DOSAGE	REMARKS ¹
EMPTY BIN RESIDUAL SPRAYS		
Diacon II	1 ml per gal of water Apply 1 gal per 1,000 sq ft	This product will not kill adults but will control immatures.
Diacon-D	1.5 oz dust per 1000 sq ft	This product will not kill adults, but will control immatures. Applicators must wear a dust mask and protective gloves.
Diatomaceous earth (Dryacide, Insecto, Protect-It and others)	Dosage varies by label	Make sure to select a product that is specifically labeled for treating grain storage facilities.
Storcide II	1.8 oz per gal of water Apply 1 gal per 1,000 sq ft	Apply as a general surface, spot, mist, or crack and crevice application. Application can only be made from outside the bin using automated spray equipment.
Tempo SC Ultra	0.54 oz per gal of water Apply to runoff	Apply to all interior surfaces of storage bin and allow to dry before filling bins. Do not apply directly to grain.
EMPTY BIN FUMIGANTS		
Aluminum or magnesium phosphide		Fumigation should only be conducted by trained and licensed applicators.
GRAIN PROTECTANTS		
Actellic 5E	9.2-12.3 oz per 3-5 gal water Apply 5 gal per 60,000 lb	Labeled on shelled corn and grain sorghum only.
Diacon II	Rates vary by commodity 5 gal per 1,000 bushels	Labeled for wheat, corn, sorghum, barley, rice oats, peanuts, and sunflower.
Diacon-D	8-10 lb of dust per 1000 bu	Labeled for cereal grains, com sunflower, canola, legumes, popcorn, wheat, spices, sorghum, rice cocoa, peanuts, oats and millet.
Diatomaceous earth (Dryacide, Insecto, Protect-It and others)	Dosage varies by label	These products are less effective when used on grain with increased moisture content and under humid conditions. Diatomaceous earth is known to decrease test weight and grain flowability.
Storcide II	Rates vary by commodity 5 gal per 1000 bu	Labeled for wheat, barley, oats, rice, and sorghum.
GRAIN FUMIGANTS		
Aluminum or magnesium phosphide		Fumigation should only be conducted by trained and licensed applicators.
ProFume		Application of this product requires training and certification by the registrant.

¹Successful management of stored grain insects requires an integrated approach including proper housekeeping, grain loading, aeration, and active management. Bins must be thoroughly sealed, swept, and vacuumed before application of empty bin residual sprays. Bins with false floors should be fumigated if all the old grain debris cannot be removed. Grain protectants should be applied in a uniform manner to grain that is of proper storage moisture with minimal dockage and fines. Grain should be leveled using a grain spreader or by manually leveling the grain peak inside the bin. The use of controlled aeration (i.e. using a thermostat to govern when the fans run) will greatly help with maintenance of uniform grain temperatures, avoidance of moisture build up, loss of protectant residues, and limiting insect population growth. Finally, stored grain managers must sample the grain regularly and respond to rapid changes in grain temperature or moisture content, spoilage odors, and insect populations. Sole reliance on insecticides for stored grain insects will not provide satisfactory results.