



Entomological Notes

Department of Entomology

DRUGSTORE BEETLE

Stegobium paniceum (Linnaeus)

The drugstore beetle is a common insect in Pennsylvania that infests stored foods, seeds, and other materials. The drugstore beetle gets its name by feeding on pharmaceutical drugs. It is often confused with a related species the cigarette beetle, *Lasioderma serricorne* (Fabricius), which is less elongate in proportion to width and has no striation on its wing covers. In Pennsylvania, the drugstore beetle is not a major pest of stored grains, but can be found from time to time in grain bins.

DESCRIPTION

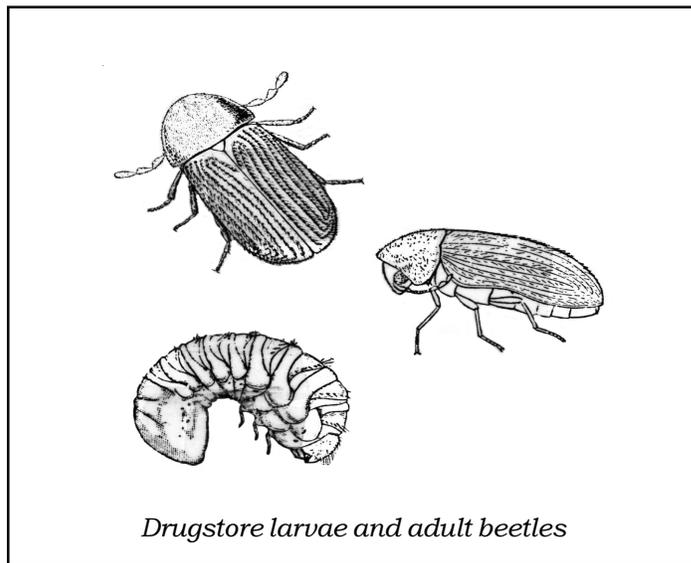
Adult drugstore beetles are very active and can be identified by their rapid skittering movement. The beetles are about one-tenth inch long, light brown to red brown, cylindrical, and have humpbacks. Their bodies are covered with fine, silky pubescence, and they have distinct grooves in their wing covers. Drugstore beetles have antenna that end in three enlarged segments.

LIFE HISTORY

Female drugstore beetle lays eggs singly in almost any dry organic substance. The eggs are oval and white and hatch in six to ten days after deposited. Small white grubs emerge from the eggs and then tunnel through these substances. The larvae have six to nine instars and are about two-tenths inch long when fully developed. The larvae form a small cocoon of silk and food material in which they pupate. Although the entire life cycle can be completed in from forty to fifty days, there is generally only one generation per year in stored grains.

DAMAGE

On-farm grain storage, particularly of corn, is increasing in Pennsylvania. Stored grains offer ample food sources for a number of insect pests. Good storage management practices are aimed at excluding grain feeding insects while maintaining grain quality. The longer grain is held in storage, the greater the need to maintain good management practices, such as sanitation and residual sprays. When proper management is



ignored, populations of insects which have been feeding and reproducing in grain residues are free to infest new grain. Once in the new grain, the insects continue to eat and reproduce. Substantial numbers of grain-infesting insects can reduce the value of grain or render it unfit for processing or feeding. Results of feeding by insects can reduce grain weight and quality. The presence of live insects can result in dockage or rejection of the grain.

These beetles are very general feeders that attack a great variety of stored foods, seeds, and other materials, and they reportedly “eat anything except cast iron.” Their food includes practically all dry plant and animal products. They may be found in stored grains where they feed on debris or dead insects and damage grain. Their main impact, however, is on grain value. Their presence in grain can result in rejection of the grain by grain buyers. When insects are present in a grain bin, other problems such as high moisture and molding are usually affecting grain quality.

MANAGEMENT

Prevention is the best strategy to avoid insect problems in stored grains. Proper bin sanitation before introduction of new grain minimizes the need for pesticides. Good sanitation involves the removal of old grain and dust in and around the grain bin. This includes re-

removal of old grain from corners, floors, and walls. Any grain remaining when a bin is emptied can harbor insect infestations which will move into the new grain. Grain that is to be stored for longer than six months may need a protective application of an approved insecticide.

Grain placed in a clean bin should be checked at two week intervals during warm months and at one month intervals during cooler months for the presence of hotspots, moldy areas, and live insects. *If any of these conditions exist, the grain should be aerated to lower the moisture level and temperature.*

Fumigation should only be used as a last resort. Because of the high toxicity of registered fumigants and technical knowledge needed for their proper use, a qualified pesticide applicator should be contacted if fumigation is required.

WARNING

Pesticides are poisonous. Read and follow directions and safety precautions on labels. Handle carefully and store in original labeled containers out of the reach of children, pets, and livestock. Dispose of empty containers right away, in a safe manner and place. Do not contaminate forage, streams, or ponds.

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