FOREIGN GRAIN BEETLES

_Ahasverus advena_ (Walti)

Several fungus feeding insects are commonly found in grains stored on the farm in Pennsylvania. One of the more common species is the foreign grain beetle. This insect does not feed on the grain itself, but on fungi. Its presence in grain is an indication of moldy grain.

**DESCRIPTION**

The adult is a small, reddish-brown beetle (one-tenth inch long) with a conspicuous rounded lobe on each front corner of the thorax (area immediately behind the head). A microscope or land lens is needed to see distinguishing characteristics. The larvae are similar in appearance to other stored grain insects and are not easy to identify without training.

**LIFE HISTORY**

Adults of the foreign grain beetle are attracted to mold grains, where females deposit their eggs singly or in small clusters. Larvae emerge in four to five days at optimal temperatures (eighty-ninety degrees F). The larvae develop through four to five larval instars in about fifteen days. The adults have an average lifespan of 215 to 250 days. In their natural environment, both the larval and adult stages feed on molds growing on the grain. The insect is a strong flyer and, from long distances, can easily locate moldy grain in bins and in fields.

**DAMAGE**

The foreign grain beetle does not damage stored grain. Its presence in a bin is in response to mold growth on the grain. The real problem in the grain bin is poor management. When grain is placed in storage and not monitored periodically, moisture can accumulate in the bin and molds then develop. This can occur even if the grain was originally dried below thirteen to fifteen percent moisture. The presence of molds and insects in the grain can result in rejection of sale or reduced market value.

Current government programs and low crop values encourage on-farm, long-term storage of grain. Grain in storage over extended periods of time requires good management practices to prevent mold grain and fungus-feeding insects. The presence of fungus feeding insects in grain is an indication of the need to control grain temperature and moisture. Fumigation may be needed in infested bins.

**MANAGEMENT**

Control of this insect begins with good management. Before new grain is placed in a bin, the bin should be thoroughly cleaned to remove old grain from the walls, floors, and augers in the bin. Harvest equipment should also be cleaned before use. If possible, the grain should be screened to remove broken kernels and other contaminants.

After placing in a clean bin, check the grain at two week intervals during warm months and one month intervals during cooler months for the presence of hotspots, mold areas, and/or insects. If any of these conditions exist, the grain should be aerated to lower the moisture level and temperature.

Fumigants should be used only as a last resort. Because of the high toxicity of registered fumigants and technical knowledge needed for their proper use, a qualified 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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