

Reduce storage losses through proper grain bin management.

The following article is comprised of excerpts from the following articles:

PennState Extension <http://extension.psu.edu/plants/crops/news/2013/09/grain-storage-preparation-will-pay-in-the-long-run>

Ohio State University <https://wayne.osu.edu/news/grain-bin-storage-preparation>

Grain harvest is not too far away and steps to protect grain from insect infestation and preserve grain quality pay off faster than ever. Starting out with a grain bin free of old, insect-infested grain is essential to getting a good start, particularly if no other protection will be applied to the grain. Sweeping down the walls of the bin and getting old grain out of the cracks and crevices is essential to prevent problems later.

Leftover grain should be removed from the bin, and the walls should be swept and vacuumed. All grain handling equipment including augers, combines, trucks and wagons should be thoroughly cleaned and grain residues removed before harvest.

The increased use of metal bins with perforated floors for grain drying and aeration has helped produce a serious insect problem in farm-stored grain. Grain dockage (broken kernels, grain dust, and chaff) sifts through the floor perforations and collects in the subfloor plenum creating a favorable environment for insect development. If possible, clean beneath slotted floors.

Sanitation outside of bins is as important as inside of the bins. Ideally there should be no vegetation (weeds, shrubs, etc.) growing up against the outside of the bin. Grain pests (insects and rodents) can be harbored in the vegetation. Bare ground covered with gravel or

cement is preferred, but short-mown grass is tolerable. Remove any spilled grain from around the outside of the bin and storage facility.

Once storage structures have been thoroughly cleaned, carefully inspect them for signs of deterioration, especially for leaks and holes through which insects, birds or rodents can gain easy access to the stored grain or rain and snow can drip or blow in onto the grain to produce wet spots that can lead to mold growth. While inspecting for physical problems, also test aeration fans and driers to make sure they are working properly. Check belts, bearings and gear boxes for wear and proper lubrication.

Adjust the combine to minimize breakage of grain. Whole grain is more difficult for molds and insects to infest and also makes aeration of the bin more efficient. Sanitation and surface treatment should be sufficient to control insects for a six to nine month period. During winter months, the cool temperatures keep insect activity in check but as spring approaches and grain temperatures rise above 40–50°, insects can become active and reproduce.

Following a few housekeeping tips can keep your grain safe from the number of storage pests out there.