

MANAGING INSECT PESTS IN STORED GRAIN

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Due to its northern location and cooler climate, Wisconsin tends to have fewer problems with stored grain insects than other regions of the country. However, insects present in stored grains still pose a significant threat to grading and salability. Some good news for farmers in Wisconsin is that *insect-free grain that is stored properly in clean bins, should remain insect free until the following summer, if not longer.* The practices listed below can help prevent insect infestations:

1. Prior to storage, thoroughly clean storage bins and transport/handling equipment
2. Maintain functional storage bins (properly sealed, functioning aeration fans, etc.)
3. Apply preventative insecticide treatments to bin and/or grain if warranted
4. Keep grain as dry and cool as possible
5. Scout to catch infestations early

Three distinct groups of pests affect stored grains. **Primary feeders** attack and feed within whole, intact kernels. They are most problematic in warmer regions and occur infrequently in Wisconsin. **Secondary feeders** attack grain that had been damaged, as well as fines and milled/processed grain. **Fungal feeders** do not feed on the grain itself, but rather fungi growing on damp, musty grain. The presence of fungal feeders can often serve as an indicator of high grain moisture.

Overall, there are several dozen species of stored product pests that can occur in Wisconsin. Most of these are small reddish-brown beetles or moths from the secondary feeder or fungal feeder groups. Due to their small size, getting specimens properly identified can be difficult. Working with your local Extension agent (www.uwex.edu/ces/cty/) or the UW-Madison Insect Diagnostic Lab (labs.russell.wisc.edu/insectlab/) can help determine the identity of the insects. This is a critical step as the management can differ depending on the type of insects present. The resources listed below offer additional information and guidance on stored grain pest management:

For information on registered insecticide treatments for use on stored grain in Wisconsin:
Pest Management in Wisconsin Field Crops (UW-Extension Publication A3646)
learningstore.uwex.edu/Pest-Management-in-Wisconsin-Field-Crops2016-P155.aspx

For a general review of stored product pest management:
Stored Grain Insect Pest Management Factsheet (Purdue University Factsheet E-66-W):
extension.entm.purdue.edu/publications/E-66.pdf

For an in-depth look at a variety of topics pertaining to grain storage:
Stored Product Protection by Hagstrum, Phillips, and Cuperus (Book; downloadable as free pdf)
www.bookstore.ksre.ksu.edu/pubs/S156.pdf

Stored grain IPM in the North central United States (4-part Webinar, ~120 minutes)
Part 1: www.youtube.com/watch?v=aNzuqqMylSg
Part 2: www.youtube.com/watch?v=m4szhiHz_yQ
Part 3: www.youtube.com/watch?v=P-KGmaNLZX0
Part 4: www.youtube.com/watch?v=WZ1sxxO7OZc

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