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EC68-1517 Principal Stored Grain Insects in Nebraska

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EC 68-1517

PRINCIPAL STORED GRAIN INSECTS IN NEBRASKA

By Robert E. Roselle, Lloyd W. Andersen, David E. Keith
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1. GRANARY WEEVIL: Eggs are deposited inside kernels of grain. Larvae develop inside the whole grain. Adults cannot fly.

2. SAW-TOOTHED GRAIN BEETLE: Feed on cereal products, broken grain, dried fruit, flour, meal and other dried foods. They are common "bran bugs" in stored grains and kitchens.

3. RED FLOUR BEETLE: Red flour beetles and confused flour beetles are almost identical in appearance and habits. Both feed on grain debris, and are common in dried foods in the kitchen.

4. LARGER CABINET BEETLE: Larger cabinet beetles and related species called dermestids, feed on grain, grain debris, in stored foods, and material of animal origin.

5. LESSER GRAIN BORER: Adults deposit eggs on kernels. The larvae bore into the kernel, destroying grain.

6. RICE WEEVIL: Eggs are placed inside kernels like granary weevils. Adults can fly. Adults have 4 light orange spots on the wing cover.

7. INDIAN-MEAL MOTH: Common in stored grain and dried foods in the kitchen. Larvae are surface feeders in grain bins. They spin webs around grain and feed within the webs.

8. CADELLE: Both adults and larvae feed on grain. Larvae will bore into wooden bins. Cadelles are large insects and easy to see.

9. FLAT GRAIN BEETLE: Adults are very small beetles with long antennae. Adults and larvae feed on germ of grain, especially grains that are high in moisture or out of condition.

10. ANGOUMOIS GRAIN MOTH: Occurs in southeast Nebraska, but is not abundant.

Eggs are laid on the grain surface. Larvae bore into grain, leaving visible small holes in kernels.

Nebraska grain is free of stored grain insects when harvested. All major insect infestations occur after the grain is stored.

It is very important that grains, especially food grains, be kept free from insect infestations. Insects destroy grain, cause heating, and increased moisture which may result in spoilage. They can contaminate grain to such an extent that Federal Food and Drug inspectors may declare it unfit for human consumption.

Sanitary procedures will prevent or delay infestations so that expensive fumigation later will not be necessary. The following steps will help keep grain free of important grain insects:

1. Clean combines, truck beds, conveyors, and other equipment after each use.

2. Store grain in metal, concrete, or well-constructed wooden bins.

3. Bins should be separate from other farm buildings.

4. Do not use bins with double walls or floors.

5. Clean bins at least four weeks before storing new grain.

6. Spray the entire inside, outside, and ground surrounding the bin with an approved insecticide four weeks before storing grain.

7. Use an approved grain protectant when new grain is binned.

8. Store grain with moisture content of 12% or less.

9. Cool grain as soon as possible.

10. Inspect grain for hot spots, insects, rodents, and moisture every three or four weeks.

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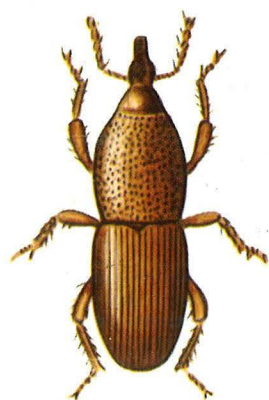
University of Nebraska College of Agriculture and Home Economics
and U. S. Department of Agriculture Cooperating

E. F. Frolik, Dean

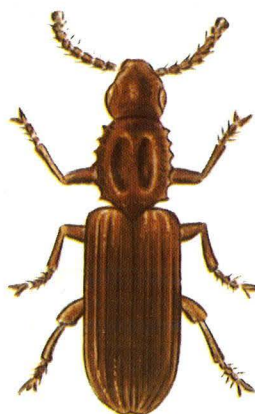
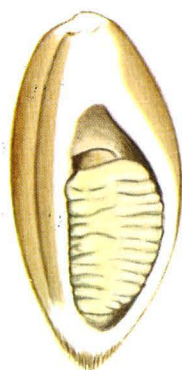
J. L. Adams, Director

PRINCIPAL STORED GRAIN INSECTS

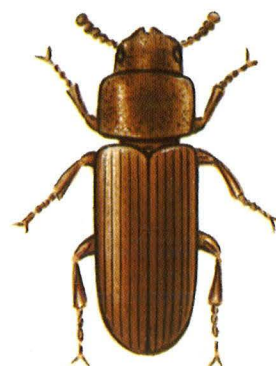
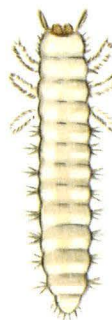
For safe and effective use of insecticides, always identify the problem correctly.



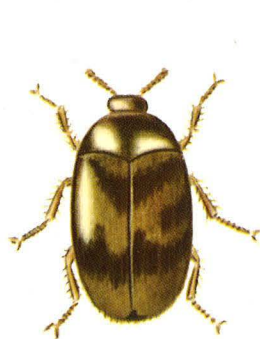
1. Granary weevil



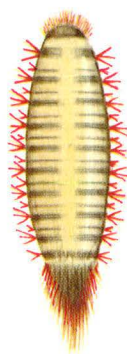
2. Saw-toothed grain beetle



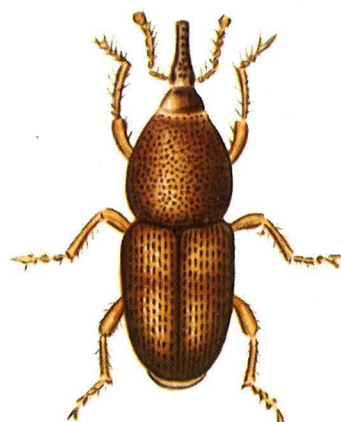
3. Red flour beetle



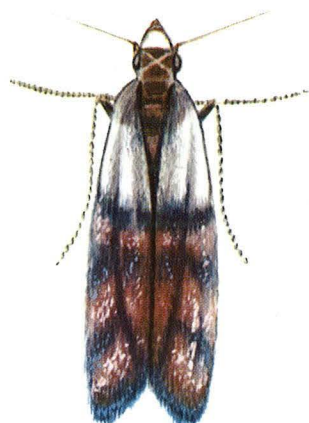
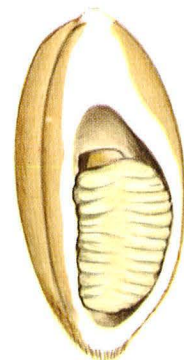
4. Larger cabinet beetle



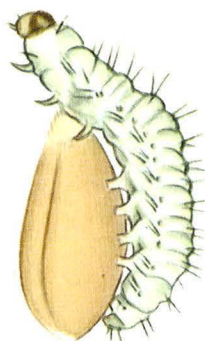
5. Lesser grain borer



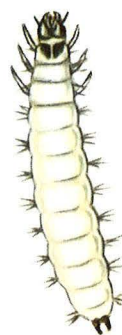
6. Rice weevil



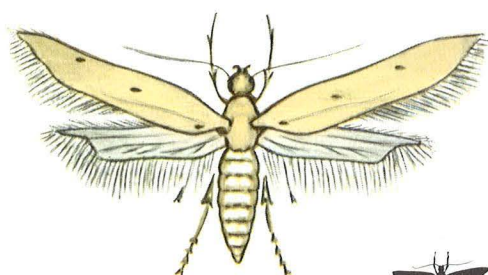
7. Indian-meal moth



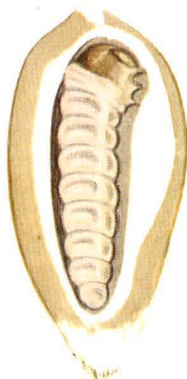
8. Cadelle



9. Flat grain beetle



10. Angoumois grain moth



Some of these stored grain insects are also **KITCHEN PESTS.**

The saw-toothed grain beetle, red flour beetle, larger cabinet beetle, and Indian-meal moth develop in flour, cake mixes, corn meal, breakfast foods and similar products. The Angoumois grain moth infests popcorn.