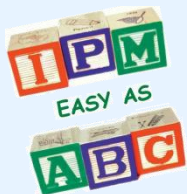
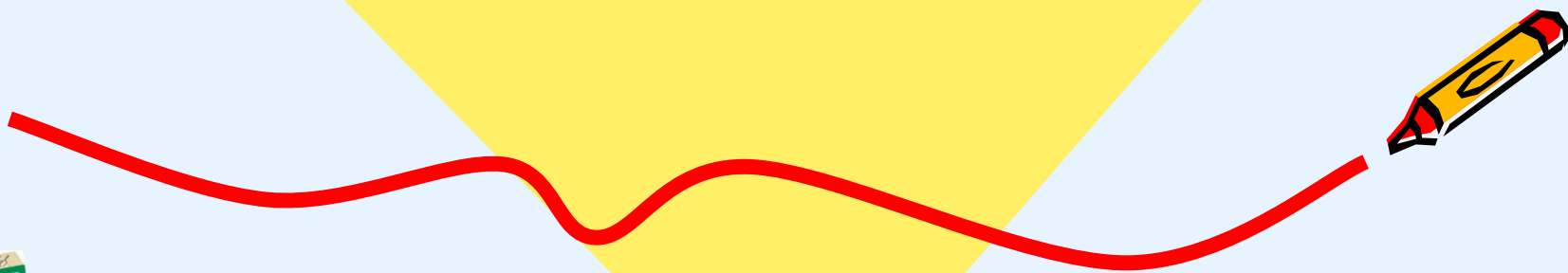


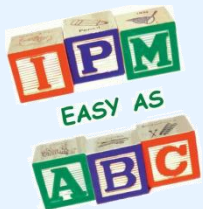
Stored Product Pests

Nebraska Extension



Stored Product Pests

- ❖ Common pests include
 - Indian Meal Moth
 - Carpet / Dermestid Beetles
 - Sawtoothed Grain Beetles
 - Flour Beetles
 - ✓ Others are described in, *Integrated Pest Management In Sensitive Environments: A How-to Guidebook*
- ❖ Control of these pests - find the infestation and throw away product
- ❖ Insecticides are not recommended

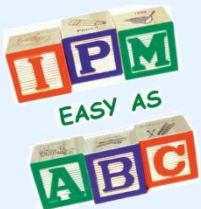


Indian meal moth

- ❖ Appears silver-colored, but has two-toned wings
- ❖ Feed on many stored foods
- ❖ Pheromone traps will catch adult moths
 - Pheromones fool males into thinking a mate is nearby
 - Captured adults indicate an infestation in the area



IMM adults are about $\frac{1}{2}$ "

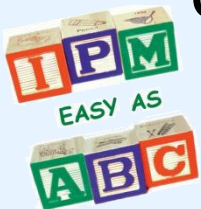


Larvae foul foodstuffs

- ❖ Grain and grain products
- ❖ Nuts, dried fruits, powdered milk, spices, graham crackers, etc.
- ❖ After feeding, larvae crawl away from food and pupate
- ❖ Sometimes found in odd places, "wandering"



IMM larvae grow to about $\frac{1}{2}$ " just before pupation



Look for webbing/frass on surface of food

❖ Look for adults, larvae and pupae:

- Inside food packages
- Along package seals
- Along wall/ceiling junctions
- In cracks and crevices



Carpet beetles: common, small, oval-shaped beetle

Some people call them weevils. . . but they're not...

- ❖ Processed and unprocessed foods
- ❖ Flour, cereals, meal, candy, cocoa, cookies, and spices
- ❖ Wool in carpets and rugs, hair, feathers, fur



Most species of Carpet beetle adults are about $\frac{1}{4}$ "



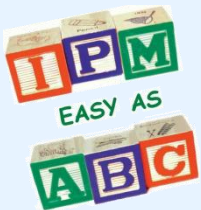


Sawtoothed Grain Beetle

- ❖ Processed foods, no whole grains
- ❖ Cereals, bran, dried fruits, nuts, sugar, and macaroni



Saw-toothed grain beetle adults are less than $\frac{1}{4}$ "



Flour Beetles

- ❖ Processed foods, no whole grains
- ❖ Flour, cracked grains, cake mixes, dried fruits, nuts, chocolate, and spices



Confused flour beetle adults are about 3/16"



Prevent stored product pests

- ❖ Vacuum rugs and carpets regularly
- ❖ Store susceptible items, in sealed, airtight containers
- ❖ Eliminate taxidermy mounts (birds, deer, etc.)

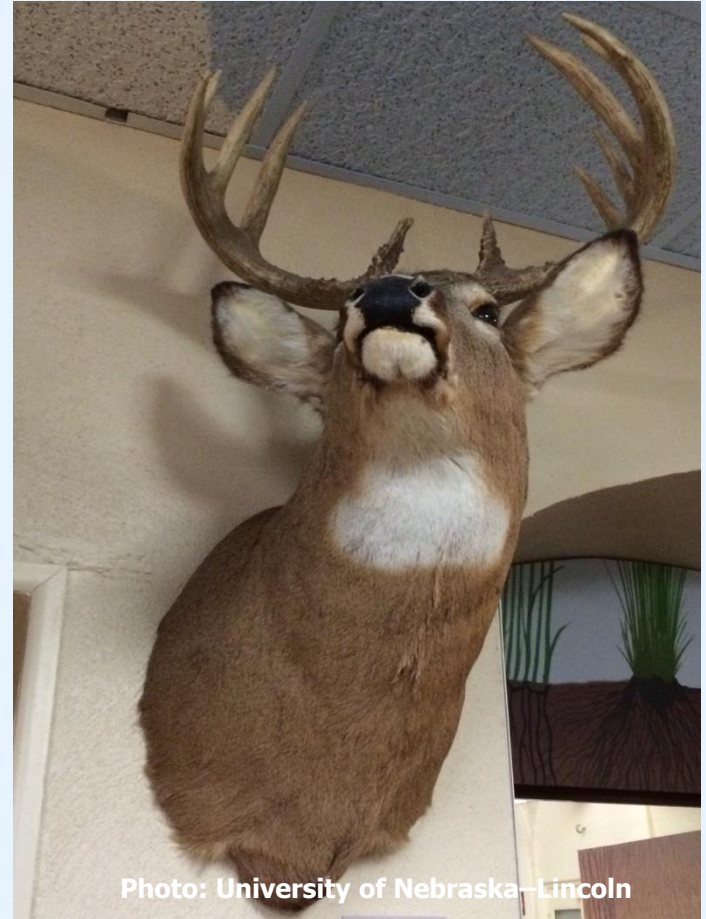


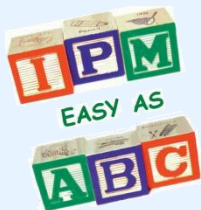
Photo: University of Nebraska–Lincoln



Prevent stored product pests

Don't store products for a long time

- ❖ Check at dock for damage
- ❖ Date incoming supplies, use oldest first
- ❖ Purchase in sizes that can be used in a short time



Prevent stored product pests

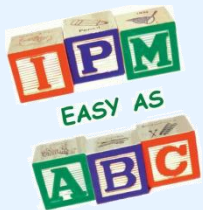
- ❖ Remove items from cardboard boxes before shelving to eliminate hiding places
- ❖ Freeze dry products for 3 to 4 days to kill eggs that may otherwise hatch
- ❖ Keep food storage areas clean!



Prevent stored product pests

❖ Store dried foods in insect-proof containers

- screw-top glass, plastic jars, or metal cans
- Prevents escape and entry of pests from the outside



Clean, don't Spray

- ❖ Do not use insecticide sprays to control fabric or pantry insect pests
- ❖ Pheromone traps can be useful to monitor how your control tactics are working

Photo: Nebraska Extension in Lancaster County



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