

Indian Meal Moth

Phil Pellitteri, UW-Madison Insect Diagnostic Lab

Little moths fluttering around the kitchen? White worms crawling out of the bird seed? A very common indoor pest at any time of the year is the Indian meal moth. Signs of infestation include small, white, worm-like caterpillars crawling on walls or in food; holes or webbing in packaging; and small gray-brown moths flying indoors.

The adult Indian meal moth is a small insect with a wingspread of about 3/4 of an inch. When it lands, the moth folds its wings flat along the length of the body. The moth appears two toned, with the front one third of the wing whitish-gray and the remaining two-thirds reddish-brown to coppery colored. If crushed they leave a dark powdery smudge. Adults often fly in a zig-zag pattern and are often seen weakly flying indoors or resting on walls or cupboard doors. Because the adults are so mobile, they often lay eggs and infest numerous products before the infestation is discovered. This moth has shown major resistance to some pesticides used in grain treatments.



Adult Indian meal moth

Where does it come from? From the store in pet food or dried plant products such as rice, flour, and noodles. The insects can be in the house for months before they are numerous enough to be noticed. It can be very difficult to trace the source.

Life Cycle: Adult moths usually emerge, mate, and lay eggs at night. Females lay between 40 to 350 eggs during a 2-3 week period, on or adjacent to food material, either singly or in groups. Eggs may also be placed directly on the exterior of packaging material. The eggs are white, flattened sideways and too small to be easily seen with the naked eye.

The full-grown, worm-like larva is about 1/2-inch long and off-white in color with a light brown head. The body color may vary from a greenish to a pinkish hue, depending on the food the caterpillar feeds on. Mature larvae usually leave their food supply and wander about looking for a place to pupate. Larvae seen on ceilings and counters, etc. are often the first indication of a problem. The cocoon is covered with a loose, silk webbing and is often found in package seams, in cracks and crevices, folded napkins, or in other protected sites. The life cycle (egg to adult) can take as few as 27 days or as long as 6 months or more. There are generally four to six generations a year indoors. If allowed to cool down gradually during the fall and winter months, larvae will often survive the cold and emerge as adults in the spring.



Food Infested (Damaged): The larvae of this insect will feed on cracked grain; coarser grades of flour such as whole-wheat or graham flour and cornmeal (Indian meal) products; dried fruits, shelled nuts and others. Products infested include raisins, dried apples, peanuts, chocolate, powdered milk, bird seed, biscuits, bread meal, breakfast foods, cereals, corn meal, corn starch, cookies, herbal tea, crackers, dry dog and cat food, flour, garden seeds, dried peppers, dried flowers, and some spices. Extensive webbing can spoil more food than the larvae can consume. Any of the foods mentioned above that are hidden by mice, or used to make decorations, they are still food for the larval stage of this moth.

Control: The Indian meal moth should be controlled without the use of pesticides. It is important that susceptible food material be stored so that adults and larvae do not have access. Glass jars and plastic containers with air -tight covers can effectively keep food insect-free. Larvae can easily chew through plastic so be cautious about storing products in re-sealable bags. Infestations in food stored in hard plastic storage containers are trapped and unable to spread to other food items. Susceptible food that can not be tightly contained should be consumed within two to three weeks of purchase. Unopened packaging can be placed in a freezer for 2-3 days to kill any larvae or eggs. Dispose of infested food. Bird seed can be recycled if frozen. Use a vacuum cleaner to get into cracks and crevices. If all sources are eliminated, moths should disappear within 2-3 weeks. When appropriate, the refrigerator and the freezer may also be used for storage of susceptible foods.

If most moths are found in a room other than the kitchen, check closets for bags of pet food, dried flowers, or art objects made from seed, nuts, etc. Using residual spraying on shelving will not control the problem if the source can not be located. Most home problems can be solved with sanitation alone.

For more information on Stored Grain Insects: See UW-Extension Bulletin A2509, or contact your County Extension Agent:

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