

**Indian Meal Moth** 



Pantry pests infest a wide variety of stored food products, including flour, cereal, dry pet food, spices, and chocolate. Some so-called "pantry pests" may also infest nonfood items, like dried flowers or potpourri, in other parts of the house. The life cycles of most pantry pests are similar the adult female lays her eggs on the food, and the larval stage feeds on and damages the food. The adult insects cause no damage but reproduce and lay more eggs.

Although most pantry pests feed on grain- or seed-based products, different species have distinct preferences for certain types of food. Some prefer flour or ground meal, while others select whole grains or seeds. Knowing the food preferences of a particular pantry pest can aid in your search for the source of an infestation.

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## Identification

The Indian meal moth, *Plodia interpunctella* is one of the most common pantry pests in West Virginia. Many people refer to this moth as a "miller." This 3/8-inch-long moth is easy to

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identify by its copper-colored wings with a wide gray band near their attachment to the body. The full-grown caterpillar is also 3/8-inch long and is pinkish-white with a brown head.

## **Biology and Habits**

You may notice adult Indian meal moths flying in your kitchen throughout warm weather, beginning in April. Adult moths do not feed; their only purpose is to mate and lay eggs for the next generation. The larva or caterpillar does damage as it feeds on the surface of food, spinning silk as it goes and leaving a mat of webbing and excrement on the food's surface.

The Indian meal moth shows a preference for raisins and other dried fruits, corn meal, cereal, chocolate, crackers, and dry dog food. Its life cycle can be as short as 28 days, with four to six generations per year, depending on food supply and temperature. As fall approaches, Indian meal moth caterpillars are able to sense the days becoming shorter. A common sight in the fall is the Indian meal moth caterpillar crawling along the kitchen ceiling looking for a place to spend the winter.

## **Prevention Methods**

Your plan to prevent an Indian meal moth infestation should begin in the grocery store. Buy only what your family can use in a short time two to four months. Purchase only sealed packages that show no signs of damage. Check the "sell-by" date to be certain of freshness. At home, "rotate stock" just the way most stores do. Use older packages before new and open packages before unopened ones.

Store your newly purchased foods in glass or plastic containers with tight-fitting lids. The cardboard or plastic packages that you bring home from the store are not insect-proof, nor are most metal kitchen canisters. Keep your pantry and cabinet areas clean. Vacuum up any crumbs or spilled food regularly. Do not clean cabinets with water, though, as this only leaves a pasty residue attractive to the pests.

## **Control Strategies**

If, despite your best efforts, you still have a problem with Indian meal moths, your first step is to locate and eliminate infested food. Begin by inspecting open packages of food for silken webbing or live caterpillars. If you still can't find where the insects are coming from, check new food packages. An unopened container may be infested inside and may contain cracks large enough to allow insects to escape.

If no source of infestation can be found in the kitchen or pantry, check the garage or other storage areas. Inspect packages of bird seed, grass seed, and dry pet food. Check holiday decorations made of seeds or dried flowers—these may be

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stored away in an attic. Infestations sometimes originate from bird seed or pet food stashed away by mice in an attic or behind a wall. Infestations have even originated from crumbs dropped between the folds of upholstered furniture.

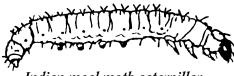
Pheromone traps are now available for the Indian meal moth. The trap contains a sex pheromone lure that gives off the same odor as a female moth. Male moths are attracted and caught on a sticky surface. Although these traps are marketed to homeowners as a control, a better use for them is to pinpoint the location of an infestation. The traps are also useful as an early warning device, allowing you to see signs of the beginnings of an infestation and to control it before it gets out of hand. Place traps near where food is stored or near the other areas mentioned.

After you've located the source of the infestation, dispose of the infested food by sealing it tightly in a garbage bag and placing it out with your trash for pickup. Don't simply toss infested food plus insects into an open trash can, either indoors or out. This is likely to result in quick reinfestation of other stored products.

It is not wise to eat anything that has been infested since many insects excrete chemicals that can be toxic. Decorative items, such as seed or dried flower wreaths or potpourri can be placed in the freezer for a week or so to kill the insects and then reused.

After you have disposed of the infested stored products, vacuum your cabinets and shelves thoroughly before replacing food. Avoid lining the shelves with shelf paper. Gaps between the shelf and the paper provide crevices in which Indian meal moth caterpillars can spin cocoons.

Use an insecticide only if the other methods fail to provide adequate control. Remove all food from cupboards before applying a natural pyrethrin product to cracks and crevices around food storage areas. Allow the spray to dry before replacing food on the shelves. And, as with any pesticide, remember to read and follow the instructions on the label.



Indian meal moth caterpillar

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