

Providing Leadership in Environmental Entomology

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INDIAN MEAL MOTH

The Indian meal moth is a very important and destructive pest. The feeding habit of this species makes it one of the most common pests of stored food. Their larvae feed on grain and grain products, dried fruit, seeds, crackers, nuts, powdered milk, chocolate, candies, dried peppers, bird seeds, dry dog or cat food, whole wheat or graham flour, cornmeal, dried roots, herbs, and some beans. Household infestations are often traced to birdseed and dry pet food. Both of these are usually kept in large quantities in unattended locations, and infestations may remain unnoticed for a long period. The first indication of this insect in the house, may be pinkish white caterpillars crawling over counter tops or across the wall or ceiling. Other indications are a few brownish moths flying in an irregular pattern in the kitchen or adjoining room a few hours after sunset.

Description

The wing span of the adult moths are about 1/2 inch. The front wings are reddish brown with a copper luster on the outer two-thirds and gray on inner third. Eggs are tiny, grayish white and sticky. Larvae are commonly dirty white, but many range from pink to brown with a greenish tinge depending on their food source. Larvae are about 1/4-3/4 inch in length.

Life Cycle and Habits

The female moth begins to lay eggs about 3 days after becoming an adult and deposits 200-300 eggs over 1-18 days. Because of the large number of eggs, it doesn't take long to get a sizable infestation that destroys large quantities of food.

Eggs are laid singly or in groups, directly on food. Eggs hatch in 7-8 days. Larvae feed for 6-8 weeks protected



in or near a tunnel-like case of frass and silk they weave together. Just before the larva pupates, it may travel a considerable distance to a location away from its food source. They can penetrate packaging materials or even a polythene film. The pupal stage lasts 15-20 days.

Prevention and Control

Non-chemical Control

Good sanitation is the best prevention and control for Indian meal moth infestations. If you follow a few recommendations you can usually eliminate the problem quickly.

1. Only purchase food packages that are sealed and show no sign of insect damage.
2. Only purchase food in amounts you can use in a short period of time (between 2 to 4 months).

3. Store all foods in insect-proof containers with tight fitting lids or freeze them in 0 ° F. Freezing grain products for 3 days after purchase is a good habit.
4. Keep cabinets and the surrounding area clean and free from food spillage. Vacuum all dust and debris from cabinets and floor of the kitchen. Do not clean cabinet with water because this may leave a pasty residue attractive to the pest.
5. Identify all infested food and discard or treat (by freezing) them.

Chemical Control

Avoid using insecticides around food. Use them only as a last resort and carefully follow the label directions. If you decide to use insecticides, choose a household insecticide labeled for pantry pests. Remove all food and clean cabinets.

Discard all infested food. Do not treat surfaces used for food storage, preparation or where kitchen appliances or utensils are kept. Give special attention to cracks and crevices in cabinets. Allow the insecticide to dry before returning food to cabinets. Cover the shelves with clean shelf paper. After treatment, good sanitation and proper storage are keys to preventing future infestations.

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