Cornell University
Cooperative Extension
Rockland County

10 Patriot Hills Drive
Stony Point, NY 10980
Phone: (845) 429 - 7085
Fax: (845) 429 - 8667
www.rocklandcce.org

Indian Meal Moth

Injury

The Indian meal moth (*Plodia interpunctella*) is one of the more common moths infesting stored grain products. Others include the Mediterranean flour moth and meal moth.

The larval stage (caterpillar) causes the damage. Larvae feed on flour and meal products, dried fruits, dried vegetables, some dried herbs, nuts, bird food and dried pet foods. As the larva feeds, it spins a web and leaves behind a silken thread wherever it crawls. This thread becomes conspicuous when small particles of food adhere loosely to it.

Many times an infestation is noticed when moths are seen flying around the home in the evening. They are attracted to lights and often appear in front of the television screen.

Description

The Indian meal moth has a wing span of about three-quarters of an inch (18-20mm). The outer two-thirds of the wings are bronze to reddish brown, while the inner one-third is a grayish white. The caterpillars are about one-half inch (12.5mm) long when mature. They are a dirty white color, sometimes exhibiting pink or green hues. Pupae (the resting stage) are inside loose silken cocoons spun by the larvae and are a light brown color.

Life History

A female Indian meal moth can lay 100 to 300 eggs during her lifetime. Eggs are laid singly or in groups on the food materials. Within a few days the tiny whitish caterpillars emerge. These larvae feed for a few weeks. Mature larvae often crawl up the walls to where the wall and ceiling meet, or crawl to the top of the cupboard. There they spin the silken cocoon in which they pupate and from which the adult moth emerges. Mating occurs and the life cycle repeats itself. In warm weather the cycle may take only six to eight weeks.

Management

The following suggestions may be useful in quickly managing an infestation. Prompt action can be important in preventing losses of stored foods.

Carefully examine all susceptible foods that may have been exposed to moths.

Do not forget bird seed, dog, cat and fish foods. Dried plant material may also harbor an infestation, especially if it contains seeds. These materials are often the source of an infestation.

Insects may even be found in products (wrapped in paper) that have not yet been opened. The larvae may easily chew their way through thin plastic bags. All infested packages should be discarded. There is no satisfactory way of separating the insects from food products, flour or meal.

The contents from opened packages that appear to be uninfested should be transferred to glass jars with airtight tops. It is possible that eggs were laid in these products; these may hatch and lead to a new infestation if not contained.

Remove all food containers and utensils from the infested area (shelf paper may also need to be removed) and clean thoroughly, first with a vacuum cleaner and then with soap and water. Special attention should be paid to cracks and corners where bits of flour, meal or other products may have accumulated. Remove and destroy cocoons; look on ceilings of cupboards, or where room walls and ceiling meet.

Thorough clean-up is essential for managing these insects. Removal of infested products, and thoroughly vacuuming storage closets, is effective. Pesticides are usually not necessary. Use pheromone traps to monitor and catch male insects.

In extreme cases, if needed, treat corners of storage areas with cyfluthrin, or prallethrin plus other ingredients labeled for use on pantry moths. When material is dry, put down fresh shelf paper. Never place food or dishes back in the closet until material is entirely dry.

Continue to observe the area for several months after treatment. If moths reappear, the clean-up may have been inadequate, or newly infested packages may have been brought into the storage area.

Long term storage of flour and meal products often leads to infestation; therefore, such products should be purchased in quantities for immediate use, unless adequate containers are employed.

INSECTICIDES SHOULD BE USED ONLY ACCORDING TO INSTRUCTIONS ON THE LABEL. THESE PRODUCTS SHOULD NEVER BE STORED WITH FOODS.

Source: http://ipmguidelines.org/Home/content/Book2/CH05/default.asp#_Toc235345850

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