

Indian Meal Moth

Plodia interpunctella



Description

Adults: Up to 13 mm (0.5 inches) long with wings that have copper brown tips. The part of the wings closest to the head is off white.

Eggs: Oval, ivory in color and 2 mm (0.08 inches) long

Larvae: Creamy white, brown head capsule. Coloration varies from cream to light pink color, sometimes pale green.

Pupae: Pupal cases are whitish with a yellow to brownish colored pupa inside.

Life Cycle

Adult moths live for 10-14 days. Mated females can lay 200-400 eggs singly or in groups. Eggs hatch in 3-5 days in warmer months and up to 7 days in cooler months. Larvae feed and become mature in 21 days or as long as 30 days depending on food quality, temperature and humidity. Larvae will wander and pupation will occur away from infested materials. Adults emerge from the pupae in 7 to 10 days depending on temperature.

Damage and Detection

Granular frass the size of ground pepper can be found in, on food materials such as nuts, dried fruits, cereals and processed foods containing nuts or seeds and made from wheat, rice or corn. The use of pheromone traps and inspections can determine location and degree of infestation.

Corresponding Products from Insects Limited

- [Indian Meal Moth Bullet Lures Only \(IL-103\)](#)
- [Moth Suppression Lure \(IL-105\)](#)
- [PTL Multi-Species Bullet Lures Only \(IL-108\)](#)
- [Moth Suppression Hanging Trap with Wick Lures \(IL-160\)](#)
- [Hanging NoSurvivor Traps and Bullet Lures \(IL-164\)](#)
- [Hanging Outdoor Monitor and Bullet Lures \(IL-165\)](#)

QUICK SCAN

SIZE / LENGTH

Adult 0.5 inch (13 mm)
Eggs 0.08 inch (2 mm)

COLOR RANGE

Adult Long wings with copper tips
Larvae Creamy white, brown head

LIFE CYCLE

Adults Live 10-14 days
Eggs Hatch 3-7 days

FEEDING HABITS

Larvae Prefer: food materials such as nuts, dried fruits, cereals, and processed foods containing nuts or seeds made from wheat, rice, or corn

INFESTATION SIGNS

Granular frass the size of ground pepper can be found in, on food materials



Indian Meal Moth Monitoring Guidelines

Lure

BULLET LURE® - Contains sex pheromone to attract male moths.

Lure Storage

Keep unopened lures in cool storage (less than 60° F) or place in freezer for extended storage. Lures can remain frozen for up to 24 months or at room temperature for 12 months to retain their full effectiveness for use afterwards.

Trap Designs Used with Lure

NOSURVIVOR traps are diamond shaped sticky traps that can be hung from many locations. This design is the preferred trap for this moth that flies well.

THE SIGHTTRAP™ is the size of a NoSurvivor hanging trap and provides daily images and catch data to help with early detection. The data is available on the web and app-based software, ForesightIPM.

Trap Placement Techniques

Pheromone traps can be placed out year-round but are especially recommend during warmer months when temperatures exceed 12.5°C (55°F). Place hanging pheromone traps 1.5 m (5 feet) above ground or at eye level to allow for easy inspection when monitoring traps. In areas such as a pantry or home, place one or two pheromone traps per room. In commercial areas such as warehouses or retail stores, place pheromone traps 7.5–15 m (25–50 feet) apart to determine the presence or absence of Indian meal moths. Increase pheromone trap density to 4.5–7.5 m (15–25 feet) apart to help locate source of Indian meal moths. Keep pheromone traps 7.5 m (25 feet) away from exterior doors. Indian meal moth pheromone traps are best utilized in areas that store dried goods such as food, grains, seeds, nuts, dried fruit, animal feed, or pet food.

Trap and Lure Maintenance

Replace traps when glue is filled with insects or becomes dusty. Replace pheromone lures every 90 days. Replace all pheromone lures in a location at the same time. Do not cut the cap off the bullet lure. Do not stagger lure replacement over several weeks. Record date and number of catches to identify trending information.

Fun Facts

- Similar species include the meal moth (*Pyralis farinalis*), Mediterranean flour moth (*Ephestia kuehniella*), Almond moth (*Cadra cautella*), raisin moth (*Cadra figulilella*), and dried fruit moth (*Cadra calidella*).
- Other common names for the Indian meal moth include weevil moth, pantry moth, flour moth, and grain moth.
- Like many food moth species, adult Indian meal moths do not eat. Their larvae are vivacious feeders and damage dried goods.
- Larvae produce large amounts of silk which can contaminate dried food goods and clog machinery.
- Indian meal moths initiate flight at temperatures above 12.5°C (55°F).
- The pheromone that attracts the Indian meal moths also attracts over 20 other moth species (*Ephestia spp.*, *Cadra spp.*, and *Spodoptera spp.*).