

MONITORING GUIDELINES



Indian meal moth

Plodia interpunctella

Description

Adults: Up to ½ inch (13mm) long with wings that have copper brown wing tips. The part of the wings closest to the head is off white.

Eggs: Oval, ivory in color and 1/50th inch long (0.5mm)

Larvae: Creamy white, brown head capsule, cream to light pink color. Microscopic examination is required to separate from other stored food moths.

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



Damage and Detection

Thick webbing with 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 flashlight inspections can determine location and degree of infestation.

Life Cycle

Adult moths live for 10-14 days during which mated females can lay 200-400 eggs singly or in groups. Eggs hatch in 3-5 days in summer months and up to 7 days in the fall/winter. 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 most often away from the infested materials. Adults will emerge from the pupae in 7 to 10 days depending on temperature.

Pheromone

The female moth produces a pheromone blend of 4 compounds. The major compound is commonly used alone in lures and in Mating Disruption products such as Allure MD. This is one of the few pheromone products used in the stored food industry to require an EPA Label for claiming control. Lures used for monitoring purposes only do not require EPA registration as a pesticide and thus do not have labels.

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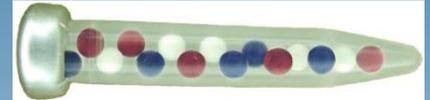
Plodia interpunctella

Lures

BULLET LURE® - Contains sex pheromone to attract male moths. The most effective duration of attraction is 8 weeks. Moths will still be attracted for several weeks more, but at lesser rates.



IL -103-10 Ten lures only (White Beads)
IL -164-10 Ten lures with ten Hanging traps.



Multi Species lure with IMM
IL -108-10 Ten Lures only (Red, White and Blue beads)
IL -408-10 Ten lures with Hanging traps.

MOTH SUPPRESSION® – Contains sex pheromone to attract male moths and egg laying attractants for female moths. These wicks (20) are most effective for 4 weeks. Moths will still be attracted for several weeks more, but at lesser rates. IL-160-10 Kit with 10 traps



Lure Storage

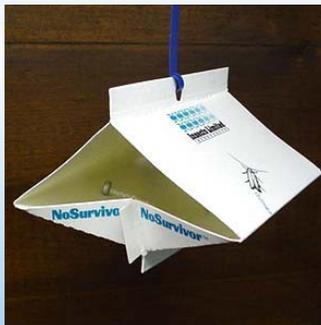
To obtain the best results Shelf life of bullet lures at room temperatures is 12 months. Buy what you need for the season, and then keep unopened lures in cool storage (less than 60° F) or place in freezer for extended storage. Lures can remain frozen for up to 18 months to retain their full effectiveness for use afterwards.

Exposure to heat above 90°F (32°C) for 24-48 hours will not degrade the performance of the lures. Exposure to heat above 90°F (32°C) will cause some degradation of the performance of the lures but will be acceptable for use. Exposure to temperatures above 140°F(60°C) will make the lures unacceptable for use.

Trap Designs used with Lure

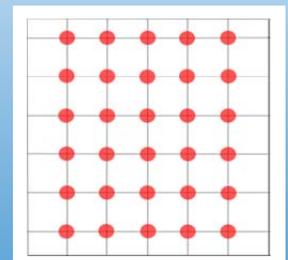
No Survivor hanging traps are diamond shaped sticky traps that can be hung from many locations. This design is the preferred trap for this moth that flies well.

The Moth Suppression traps are 50% larger than the No Survivor traps.
Plastic Delta traps are useful for outdoor trapping.



Trap Placement Techniques

Traps can be placed year round but should be in greater numbers during the summer. Place hanging traps at about 5 feet above ground. Place in food storage areas, garages, warehouses, retail stores etc. Place traps 15- 25 feet apart in a grid pattern depending on amount of food that needs to be monitored. Do not place traps more than 50 feet apart or closer than 30 feet from shipping or exterior doors.



Trap and Lure Maintenance/ Documentation

Traps must be replaced when filled with moths or become dusty. Traps may remain sticky for many months. The old lure can be left in the trap or placed in a new trap if still active. Replace lures according to the manufactures recommendations. Replace all lures in a location at the same time. Do not stagger lure replacement over several weeks. Date traps, and record catches on spreadsheets that can graph the trending data.

Expectations and Interpretations

1 moth per trap per week - There is some activity, but manageable and under control with sanitation.
1 moth per trap per day - Inspection of materials susceptible to attack should be carried out.
3-5 moths/ trap per day - Serious infestation is likely on a single item or location in the area of the trap.
10 + moths/trap per day - Serious wide spread infestation has occurred in the room or storage area.

Contact:

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