# **MONITORING GUIDELINES**

# Indianmeal Moth

Plodia interpunctella

## Description

Adults: Up to 1/2inch 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 1/12 inch long

- Larvae: Creamy white, brown head capsule, cream to light pink color. Microscopic examination is required to separate from other stored food moths.
- Pupae: Pupal cases are whitish with a yellow to brownish colored pupa inside.

#### **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.

#### Life Cycle

Adult moths live for 10-14 days where upon mated females can lay 200-400 eggs singly or in groups. Eggs hatch in 3-5 days in summer months and up to7days in 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 away from infested materials. Adults will emerge from the pupae in 7 to 10 days depending on temperature.

#### Lure

BULLET LURE<sup>®</sup> - Contains sex pheromone to attract male moths. Effective duration of attraction is 6-8 weeks.

#### 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 18 months to retain their full effectiveness for use afterwards. Shelf life of lures at room temperatures is 12 months.

#### 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.

#### **Trap Placement Techniques**

Timing - Traps can be placed year round but should be in greater numbers during the summer.

- Density One to two traps per room that contains materials susceptible to attack.
- Location 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 depending on amount of food that needs to be monitored.

#### **Trap and Lure Maintenance**

Traps must be replaced when filled with moths or become dusty. Traps may remain sticky for many months. Lures must be replaced every 6-8 weeks. The old lure can be left in the trap.

#### **Expectations and Interpretations**

1 moth per trap per day -- Inspection of materials susceptible to attack should be carried out.

- 3-5 moths/ trap per day -- Serious damage is likely on a single item or location in the area of the trap.
- 10 + moths/trap per day Serious wide spread damage has occurred in the room or storage area.

### **Important Notes:**

Large numbers of moths require other means of control and management to eradicate infestations. Traps may catch sufficient number of males to prevent females from becoming fertile. Female moths however, may actively fly around and not be attracted to the traps.