



# Rice Weevil

*Sitophilus oryzae*

## Description

**Adults:** Adults are 2-3 mm (0.125 inches) long, dull reddish-brown to black, having the prothorax pitted with deep, round punctures and with four light spots on the wing covers.

**Eggs:** Female rice weevils will chew a hole into a grain kernel and deposits a single egg.

**Larvae:** Larva fully develops inside the whole kernel of grain or dried pasta, eating it away as it grows. By the time it is ready for pupation, the entire inside of the kernel has been eaten away, usually leaving only a thin seed cover.

**Pupae:** Pupation also occurs within the kernel of grain.

## Life Cycle

The female will eat out a cavity large enough for an egg. She will then use her ovipositor at the tip of her abdomen to lay a single egg in each kernel of grain. After depositing the egg, she will seal off the hole, making detection difficult. The egg will hatch in about 3 days. The larval stage will take, on average, about 18 days and pupation will take 4 days. The adults will live about 110 days and are strong fliers.

## Damage and Detection

The larvae do the greatest amount of damage as they eat the inside of grains and seeds, leaving only a husk behind. The adults also have strong chewing mouthparts and will cause damage as well. Detection can be difficult in grains that have recently had eggs laid in them. After some time, the damage becomes evident as the grains becomes so light and hollow, that you can easily break them into a dust with your fingertips. In heavy infestations, chewing can sometimes be heard.

## Corresponding Products from Insects Limited

- [All Beetle Trap with RTU Gel \(IL-2750\)](#)

## QUICK SCAN

### SIZE / LENGTH

Adult 0.125 inch (2-3 mm)

### COLOR RANGE

Adult Dull reddish brown to black

### LIFE CYCLE

Egg Hatch in 3 days  
Adults Live about 110 days

### FEEDING HABITS

Larvae do greatest amount of damage. Adults cause damage as well.

### INFESTATION SIGNS

Damage becomes evident as grains become so light and hollow that you can easily break into dust with your fingertips.

# Rice Weevil Monitoring Guidelines

## Lure

**BULLET LURE** Contains aggregation pheromone to attract male beetles.

**PANTRY PATROL** Pheromone /oil dispenser. Contains grain-based food attractants and aggregation pheromones to attract males and female Rice Weevil.

**STORED PRODUCT BEETLE Lures** are food bait and pheromone lures that was specifically designed to make the Pantry Patrol gel into a tablet form.

**ALL BEETLE TRAP READY-TO-USE TRAY** is a preloaded accessory of the **ALL BEETLE TRAP** that contains either the **PANTRY PATROL** Pheromone/oil dispenser or the **STORED PRODUCT BEETLE LURE** and glueboard.

## Lure Storage

Keep unopened **BULLET LURES**, **PANTRY PATROL** pheromone /oil dispensers, **READY-TO-USE TRAYS**, and **STORED PRODUCT BEETLE LURES** in cool storage for 12 Months or in refrigeration for up to 24 months before using or discarding.

## Trap Designs Used with Lure

**ALL BEETLE TRAP** consists of three parts: A clear lid, blue base, and snap in tray. This device can be paired with many different types of attractants available by Insects Limited depending on the insect you are monitoring.

**PANTRY PATROL** “CORNER” pitfall traps contain a triangular pit to receive full dispenser of pheromone /oil. Dust cover is incorporated into cardboard packaging.

## Trap Placement Techniques

Pheromone traps can be out placed year-round but are especially recommend when temperatures exceed 12.5°C (55°F). Floor pheromone traps like the All Beetle Trap and Flat Trap are more effective at capturing rice weevil compared to hanging pheromone traps, however, hanging pheromone traps tend to stay clean longer and allow for easier inspection. 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 rice weevil. Increase pheromone trap density to 4.5–7.5 m (15–25 feet) apart to help locate source of rice weevil. Keep pheromone traps 7.5 m (25 feet) away from exterior doors. Rice weevil pheromone traps are best utilized in areas that store dried goods such as food, grains, seeds, nuts, 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 granary weevil (*Sitophilus granaries*) and maize weevil (*Sitophilus zeamais*).
- Other common names include lesser grain weevil.
- Rice weevil is an internal feeder, meaning that larvae can burrow into a grain kernel where they feed and remain until they emerge as an adult.
- Rice weevil initiate flight at temperatures above 20°C (68°F).
- The pheromone that attracts rice weevil also attracts similar species including:
  - Granary weevil (*Sitophilus granaries*), Maize weevil (*Sitophilus zeamais*), Bearded weevil (*Rhinostomus barbirostris*)