



# Saw-toothed Grain Beetle

*Oryzaephilus surinamensis*

## Description

**Adults:** Small, 2.5 mm (0.9 inches) long, and reddish brown. Beetles have 6 teeth on both sides of the thorax. Looking at the head of the Saw-toothed grain beetles, the segment behind the eye is the same sizes as the eye. Merchant grain beetles are similar in appearance but the segment behind the eye is distinctly smaller.

**Eggs:** Eggs are not readily viable without microscopic examination.

**Larvae:** Larvae are 3-4 mm (0.14 inches) long, white to yellowish in color, and slightly flat. The last abdominal segment does not end in a prominent point like flour beetles.

**Pupae:** Pupae are similar in size to the larvae. The pupal chamber is usually attached to a food item and is constructed of food particles.

## Life Cycle

Female grain beetles will deposit 50-300 eggs in food during a 6 month -3 year life span. Eggs hatch in 5-12 days, and the larvae can mature within 35 days or as long as 50 days depending on temperature. These insects are very good at crawling on any surface including glass, and steel. Despite their size, they can roam some distance from infested food products.

## Damage and Detection

Saw-toothed grain beetles can invade many types of packaging found in stores and pantries. They do not penetrate packaging but will use their small size to enter even minor packaging imperfections. Their presence is usually found after opening a package and finding dark beetles in light colored products like rice and flour. Both adults and larvae can feed on dry food product. They do not attack intact grains but will feed on damaged grains or powdered food products.

## Corresponding Products from Insects Limited

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

## QUICK SCAN

	SIZE / LENGTH
Adult	0.098 inch (2.5 mm)
Larvae	0.14 inch (3-4 mm)

	COLOR RANGE
Adult	Reddish brown
Larvae	White to yellowish, slightly flat

	LIFE CYCLE
Egg	Hatch in 5-12 days
Females	Lay 50-300 eggs during 6 month-3 year life span

	FEEDING HABITS
	Invade many types of packaging found in stores and pantries. Both adults and larvae feed on dry food product.

	INFESTATION SIGNS
	Presence is usually found after opening a package and finding dark beetles in light colored products like rice and flour.



# Saw-toothed Grain Beetle Monitoring Guidelines

## Lure

PANTRY PATROL Pheromone /oil dispenser. Contains grain-based food attractants that is effective for 12 weeks. While this product contains pheromones of other insects, there are no pheromones for grain beetles in this product.

STORED PRODUCT BEETLE LURES are food bait and pheromone lures that was specifically designed to make the Pantry Patrol gel into a tablet form. There are no pheromones for grain beetles in this product.

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 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 effective at capturing saw-toothed grain beetle. 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 saw-toothed grain beetle. Increase pheromone trap density to 4.5–7.5 m (15–25 feet) apart to help locate source of saw-toothed grain beetle. Keep pheromone traps 7.5 m (25 feet) away from exterior doors. Saw-toothed grain beetle 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

- Other similar species include merchant grain beetle (*Oryzaephilus mercator*) and foreign grain beetle (*Ahasverus advena*)
- Other common names include narrow grain beetle, serrated grain beetle, and maize silvanus.
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- Saw-toothed grain beetles do not fly, but their cousins the merchant grain beetle (*Oryzaephilus mercator*) do.