



## Flour and Grain Beetles

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Introduction: Flour and grain beetles are small brown beetles that infest grain, flour, and animal feed. They degrade the quality of the product but are harmless if accidentally ingested. Discarding the infested food and sealing remaining foods and feeds in tight containers controls both beetles.

### Sawtoothed Grain Beetle - Coleoptera: Silvanidae

**Description:** The adult is a small, active, brown beetle, 2-3mm long, with a flattened body and six saw-toothed projections on each side of the thorax. The larva is yellowish-white, about 2-3mm long, with a brown head. The abdomen tapers toward the tip. The sawtoothed grain beetle (*Oryzaephilus surinamensis*) is a common pest known throughout most of the world. A closely related species, *Oryzaephilus mercator*, is also important and is often mistaken for the sawtoothed grain beetle. **Size:** 1/10 to 1/8 inch (2-3mm). **Color:** Brown.

**Habitat:** The sawtoothed grain beetle is a common pest in grocery stores, food warehouses, and grain storage.

**Life Cycle:** The females live from 6 to 10 months and deposit 45 to 285 eggs in foodstuffs. Several generations may occur each year, as the life cycle requires only 3 to 4 weeks during the summer.

**Type of Damage:** It readily penetrates packaged cereals, dried fruits, and candies. It also attacks flour, meal, sugar, drugs, dried meat, and tobacco.

**Cultural Control:** Controlling this pantry pest requires careful inspection of all cereal foods, discarding the heavily infested material, repackaging material in new containers, and vacuuming kitchen cabinets. Vacuuming the cabinets will be much more beneficial than washing them. Vacuuming will remove flour dust and scraps in the cracks and crevices of the cabinet. Washing may make a paste of the flour.

**Interesting Facts:** Adults do not fly and live about 6 to 10 months, with some living up to three years.

### Flour Beetles, *Tribolium* sp.

**Description:** The confused flour beetle and the red flour beetle (*Tribolium castaneum*) are similar in appearance and habits. Adult confused flour beetles have the antennae gradually enlarged toward the tip; the antennae of the red flour beetle have the last three segments abruptly enlarged. *Tribolium confusum* cannot fly, but *Tribolium castaneum* may fly. The elongate, reddish-brown beetles are about 3-4mm long, with a distinct joint between the thorax and abdomen. **Size:** About 1/8 inch (3-4mm). **Color:** Reddish-brown.



Sawtoothed grain beetle. Clemson University - USDA Cooperative Extension Slide Series. Bugwood.org.



Confused flour beetle. Clemson University - USDA Cooperative Extension Slide Series. Bugwood.org.



Photo of Red Flour Beetle by Eric Day

**Habitat:** These beetles are very common pests infesting many flourmills, warehouses, and grocery stores. They also feed upon grain, beans, dried fruits, nuts, chocolate, and other foods in the house.

**Life Cycle:** The adult female may live for as long as two years, depositing 300 to 400 eggs. The mature larva is brownish-white, has six legs, and is up to 13mm long. The life cycle requires one to four months when temperatures are favorable.

**Type of Damage:** Flour beetles attack milled grain products such as flour and cereals. These beetles often hitchhike into the house in infested flour and can build up into large populations on food accumulations in cabinet cracks and crevices and in furniture.

**Cultural Control:** Control of these pests begins with the location of the infested food. A thorough clean up, using a vacuum cleaner to get into the cracks and crevices, will control this pest.

**Interesting Facts:** Confused flour beetles are the most abundant and injurious insect pests of flourmills in the United States.