Saw-toothed Grain Beetle, Confused Flour Beetle, and Red Flour Beetle

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Small, reddish or brown beetles noticed in cupboards or around stored cereal products are usually the first signs of an infestation of "bran bugs." Although this common name is applied to several different insects, those most commonly encountered are the saw-toothed grain beetle, the confused flour beetle, and the red flour beetle.

Saw-Toothed Grain Beetle

The saw-toothed grain beetle gets its name from the six tooth-like projections located on each side of the thorax (that part of an insect just behind the head). This small insect is about 1/10 of an inch long, slender, flat, and dark red or brown in color.

The saw-toothed grain beetle feeds on most types of grain and cereal products, nuts, seeds, yeasts, dried meats, dried fruits, and candy. It readily penetrates packaged foodstuffs and may be brought into the home in groceries.

Life Cycle. The eggs of this beetle are laid on or near food products and hatch into small yellowish-white, worm-like larvae. After several weeks of feeding they form a protective covering by sticking small bits of food materials together. Within this protection, they pupate and become immobile. A week or so later they emerge as the adult form. The adults may live for two or three years.

Confused Flour Beetle and Red Flour Beetle

The confused flour beetle is a reddish-brown beetle about 1/7 of an inch long. It feeds on a wide variety of foods, such as grains, cereal products and starchy materials, beans, peas, baking powders, dried fruits, some drugs, and even cayenne pepper.

The red flour beetle resembles the confused flour beetle so closely in both appearance and habits that the illustration and life cycle given here apply to both insects.

Hundreds of these insects may live and reproduce in a small box or bag of infested food. The adults may migrate throughout the kitchen and infest all food products which are attractive to them, especially foods in open containers which are undisturbed for long periods.

Life Cycle. The adult female beetle deposits small sticky eggs which become concealed by the food (flour, meal, etc.). Small white "worms" (larvae) hatch from these eggs. These larvae tunnel through the food, feeding until they are about 1/6 of an inch long. Then they come to the surface and pupate or transform from the worm-like larval stage into an immobile form which later becomes the adult. The adults quickly mate and start laying eggs, reinfecting the same area or moving on to infest other containers. Under ideal conditions a complete generation from egg to adult develops in less than two months.

Prevention and Control

The cheapest and least troublesome method of preventing infestations of these pests is keeping foods in tight containers. Discard all infested foods. All other packages of food products should be inspected for possible infestation and placed in
tight containers to prevent further infestations. Carefully check unopened packages for possible infestations.

When the infested materials may be used for other purposes or if the infestation is questionable, the materials may be heated or frozen to stop further damage. Place the infested materials in shallow pans and heat in the oven for at least 30 minutes at 130° F or place these materials in a deep-freeze for four days.

After the infested foods have been discarded, all shelves, containers, flour bins, etc., should be thoroughly cleaned and scrubbed with a good cleaning solution and water. For further control where infestations persist, the shelves may be sprayed with one of the following:

NOTE: For use against exposed stages only.

Malathion. Use a three percent Malathion spray solution or use a three percent pressurized spray.

Propoxur (Baygon). Indoor homeowner use is limited to ready-to-use formulations of up to one percent active ingredient for sprays including pressurized products. DO NOT use as a space spray. This product is registered for use on the saw-toothed grain beetle only.

Pyrethrin. Household aerosols containing pyrethrins can be used to kill those adults found wandering about the house.

After the insecticide has dried, place fresh shelf paper on all the shelves and drawers to keep dishes and cooking utensils from being contaminated.

DO NOT allow food to come in contact with the sprayed surfaces.

Several household formulations that differ from those above may be purchased by homeowner. Check the label of the container to determine if the product is recommended for controlling these pantry pests. Before using any insecticide be sure to READ, UNDERSTAND, and FOLLOW the directions on the label of the container.

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USE PESTICIDES WISELY AND SAFELY

Apply only where needed or justified.
Use care when handling, mixing or applying pesticides.
Keep pesticides in original container complete with labels.
Keep pesticides out of reach of children.
READ, UNDERSTAND, and FOLLOW directions on the label and heed all precautions.
Carefully and properly dispose of unused portions of diluted sprays and empty pesticide containers.
DO NOT contaminate food or dishes.