



SAW-TOOTHED GRAIN BEETLES
Oryzaephilus surinamensis (L.)
and *Oryzaephilus mercator* (Fauvel)

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Description

The saw-toothed grain beetle, *Oryzaephilus surinamensis* and the related species *O. mercator*, the merchant grain beetle, are tiny, brown, flat, slender, insects about 1/8 of an inch long with saw-tooth-like projections on each side of the thorax. Both species occur in kitchen cabinets where adult beetles and their worm-shaped yellowish grubs feed on a great variety of food such as cereals, breakfast foods, dried fruits, macaroni, crackers, tobacco, chocolate, nuts, etc. Grain based products (except for flour) seem to be favored as food. Their flattened bodies enable them to readily penetrate seemingly well sealed food packages and they may also chew through paper packaging. Close examination of infested packages may reveal an abundance of beetles hurrying over the surface of the food and larvae and cereals and grains may be lumped and matted. Very often beetles have infested several commodities before they are detected by the homeowner.

Life History

The adult beetles usually deposit their eggs in the food stuffs they infest. A single female can lay from 45 to 250 or more eggs which hatch in 3 to 17 days depending on the temperature. The larva is yellowish white with a brown head and measures 1/8 of an inch in length when fully grown. The larval period lasts from 2 to 10 weeks after which they pupate by sticking together small bits of the food material to form a protective covering around their bodies. The pupal stage lasts from one to three weeks after which the new adults emerge. The adults are long-lived and have been kept alive for over 3 years. Under ideal conditions the life cycle is completed in about 4 weeks.

Control

This pest can be controlled by carefully carrying out all of the steps described below. The beetles may be seen in diminishing numbers for several weeks or longer before disappearing completely.

1. Remove everything from food cabinets and shelves and clean all surfaces by vacuuming to remove all chaff, refuse or food particles from cracks and crevices. Loosen such materials in cracks and crevices with a knife if necessary to aid in removal by vacuum cleaner.
2. All food packages should be examined for beetles and infested packages removed and destroyed. Search packages of food rarely used as a possible source of the infestation in the backs of cupboards or drawers.
3. Place packaged foods in tight glass, plastic, or metal containers for storage.
4. Newly purchased foods should be opened and carefully examined for possible sources of reinfestation.

Should the beetles persist to become more numerous after several weeks, it may be necessary to reexamine the problem, particularly the source of infestation or to contact this agency for further advice and assistance. Pesticides **are not** recommended in this situation.