

Providing Leadership in Environmental Entomology

Department of Entomology, Soils, and Plant Sciences • 114 Long Hall • Clemson, SC 29634-0315 • Phone: 864-656-3111
email:dpento@clemson.edu

SAW-TOOTHED GRAIN BEETLE



Photo: University of Minnesota, Department of Entomology

The saw-toothed grain beetle is a common stored-products pest throughout the world in homes, grocery stores, food warehouses, and grain storage facilities. These beetles feed on a variety of stored products including flour, cereals, bread, pasta, dried fruits, sugar, nuts, drugs, dried meat, and tobacco. With their flattened body, they easily hide in cracks and crevices, and can penetrate poorly packaged materials. They are commonly found in seldom-used stored products. A typical discovery of a saw-toothed grain beetle infestation occurs when the adult beetles are found crawling around in the pantry area. They favor warm, humid conditions and they are more active during the summer months. Not only do they contaminate food they also can create favorable conditions for growth of molds. Even though they eat and foul food, they are not known to cause any human health hazards.

Description

The adult saw-toothed grain beetles are small, brown and have a flattened body 1/10-1/8 inch long with six saw-like teeth on the first segment behind the head. They do not fly and they are not attracted to light. The larvae are usually yellowish-white with a brown head and are less than 1/8 inch long when mature. The larvae are difficult to identify because they are nearly identical to other closely related grain beetles.

Life Cycle

The life cycle of the saw-toothed grain beetle revolves around food. The female adult lays her eggs individually or in small batches in and around a food supply. A female can lay 45 to 285 eggs per year. Larvae emerge from the eggs in 3 to 10 days, and usually mature into adults within 50 days. Adult females live from 6 to 10 months, but can live up to 3 years if conditions are ideal. Several generations can be produced each year due to the shorter time required for life cycle development in a controlled environment or during the summer months.



Photo: Univ.ID Coop. Ext. Service

Prevention and Control

Control of the saw-toothed grain beetle begins with a careful inspection of stored foods. All infested foods must be removed and discarded. Vacuum all dust, debris, and stray insects from the cabinets, floor, and walls of the kitchen. Proper ventilation also is necessary to reduce humid environments. If an infestation is small, foods are still edible. All stages of the saw-toothed grain beetle are killed by deep freezing at 0 degrees for 4 days or by heating at 125

degrees for 1 hour. After removal from the freezer or oven, store foods properly in plastic or glass containers with tight-fitting lids. Also inspect all grain based foods purchased from the grocery store and if they are free of beetles, store them in tight containers.

If non-chemical control procedures are followed, chemical treatment should not be necessary. Treatment around food preparation areas are not recommended and never spray insecticides on or near food. If the infestation persists and chemical treatment is warranted, apply insecticides to cracks and crevices only. Follow sanitation procedures before treatment and always follow the insecticides label instructions exactly.

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Prepared by Amy L. Kilpatrick, Graduate Research Assistant, Patricia A. Zungoli, Extension Entomologist/Professor, and Eric P. Benson, Extension Entomologists/Professor, Department of Entomology, Soils, and Plant Sciences, Clemson University.

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EIIS/HS-46 (New 09/2004).