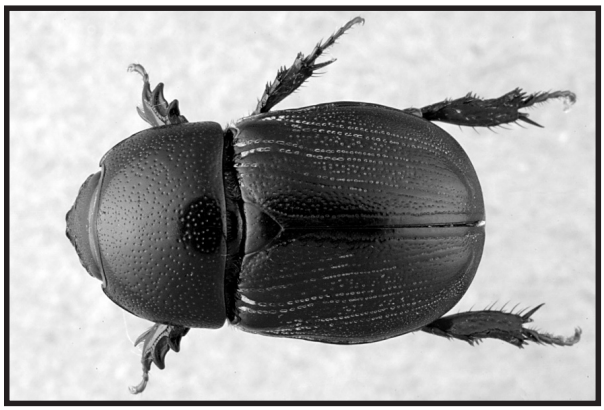
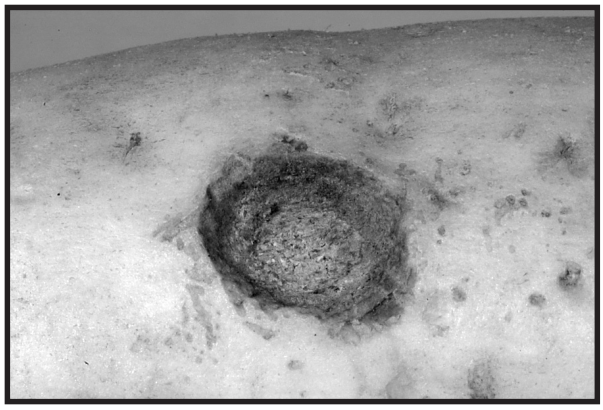
Sugarcane Beetle

Euetheola rugiceps (LeConte), Scarabaeidae, Coleoptera



Adult sugarcane beetle

Damage by adult beetle on sweet potato



Close-up of damage from beetle on sweet potato

Description

Adult: This dull black, rather stout beetle is related to the June bugs or May beetles. The beetle has strong forelegs with coarse spines adapted for digging and is about 13 to 16 millimeters long.

Egg: The egg is oblong, white and smooth. Females deposit clusters of eggs in earthen cells in sod. Eggs hatch in about nine days.

Larva: The larva of the sugarcane beetle is a white grub that closely resembles other white grubs. The grub has yellowish legs, and its head shield is red. It ranges in size from 4.8 to about 32 millimeters long.

Pupa: The pupa is pale buff and it is about 15-19 millimeters long.

Biology

Distribution and Host Plants: The beetle has been reported from all southern states. It is primarily a pest of corn, but damage reports also include sugarcane, sweet potatoes and rice. It also damages strawberries and cotton and has been reported to feed on grasses, rushes and sedges.

Damage: The adult beetles cause significant damage to corn, sweet potatoes and sugarcane. The grubs feed on the roots of grasses. Adult feeding occurs below the soil surface. Seedling corn suffers the most severe damage. Adults also are attracted to sugarcane fields. Beetles reportedly penetrate the soil along sugarcane rows, mate, lay eggs and feed on young sugarcane tillers before the apical meristem emerges above ground. In sweet potatoes, the beetles chew ragged holes in the roots, and they often can be found burrowed into the root. Crops planted adjoining a sod field most are often at greater risk of injury from the adult beetles.

Life History: The developmental cycle from egg to adult requires about 80 days. Adult beetles hibernate during late October in the soil of well-drained sod land. Adult flight activity reported from black-light traps occurs from March through September.

Beetles may become active on warm days in late fall or winter. Seldom do they resume constant flights until late March or early April. Adults mate in the soil, and females lay as many as 100 or more eggs in a lifetime. After hatching, larvae begin feeding on decaying vegetable matter. After two to three months, the mature larvae pupate and remain in the pupal stage for about two weeks. Adults emerge in August and September and feed before cold weather forces them into hibernation. The generation time is about 80 days.

Control

Poncho (clothianidin) at the 0.50 and for 1.25 milligrams active ingredient per kernel rates is labeled for corn. Belay (clothianidin) at 9-12 fluid ounce per acre rates, applied preplant or at layby, is labeled for sweet potatoes. In Arkansas, years of heavy infestations in corn were followed by one or more years of unreported damage to the crop. Weather plays an important role in natural control, but its role largely is indirect. Frequent cultivation is recommended to destroy developing larvae and pupae.

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