Childers Canegrub

Childers canegrub is native to southeastern Queensland and is the most damaging pest of sugarcane in this area. It occurs on the heavy clay soils of the Bundaberg, Isis and Bauple areas, especially on the red volcanic soils.

IDENTIFICATION

Beetles are 18 to 23 mm long, yellowish brown to almost black (Figure 1). Adults do not have the white scales some other grub beetles have. Males are very large, with seven segmented clubs on the ends of their antennae.

Childers canegrub larvae have a pear-shaped patch of hairs on the undersurface of the rear end of the grub (Figure 2). Each side of this patch has about 35 hairs in three to four distinct rows.

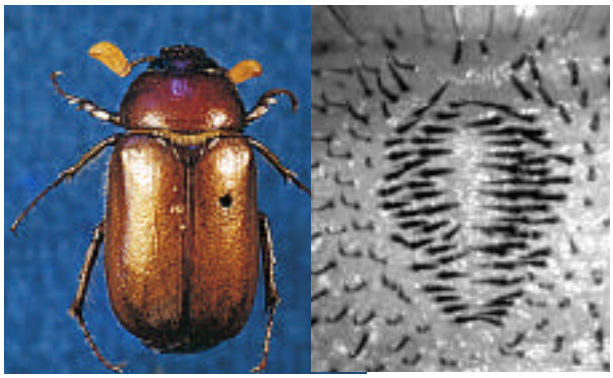

Figure 1 (left). Adult Childers canegrub. Figure 2 (right). Pear-shaped patch of hairs on the undersurface of the rear end of the Childers canegrub.

LIFECYCLE

Childers canegrubs have a two-year life cycle (figure 3 over page). Beetles emerge after good rains in November to January. Females fly little, emit a chemical called a pheromone to attract males, and mate on the soil surface. Females return to the soil to lay one batch of 20 to 30 eggs, about 20 to 40 cm deep in the soil. Neither male nor female beetles feed, and only males are attracted to lights.

After about two weeks, the eggs hatch. First-stage grubs feed mainly on organic matter in the soil for about two months. Second-stage grubs tend to congregate under the cane stools, and most continue to feed through the first winter of their life. In early spring, the grubs change to the third stage. These grubs feed heavily on the roots and stools, and grow rapidly until about January. Feeding decreases after this, but the grubs do not pupate until the second winter or early spring.

Pupae form deeper in the soil. Beetles develop in about four to six weeks after the pupae form, but remain in a chamber in the soil until suitable weather conditions trigger their emergence.

At any one time, there may be two populations of Childers grubs, separated by 12 months of age, in any one field. For example, during February there may be fully-fed third-stage grubs (14 to 15 months old) and first-stage grubs (2 to 3 months old).

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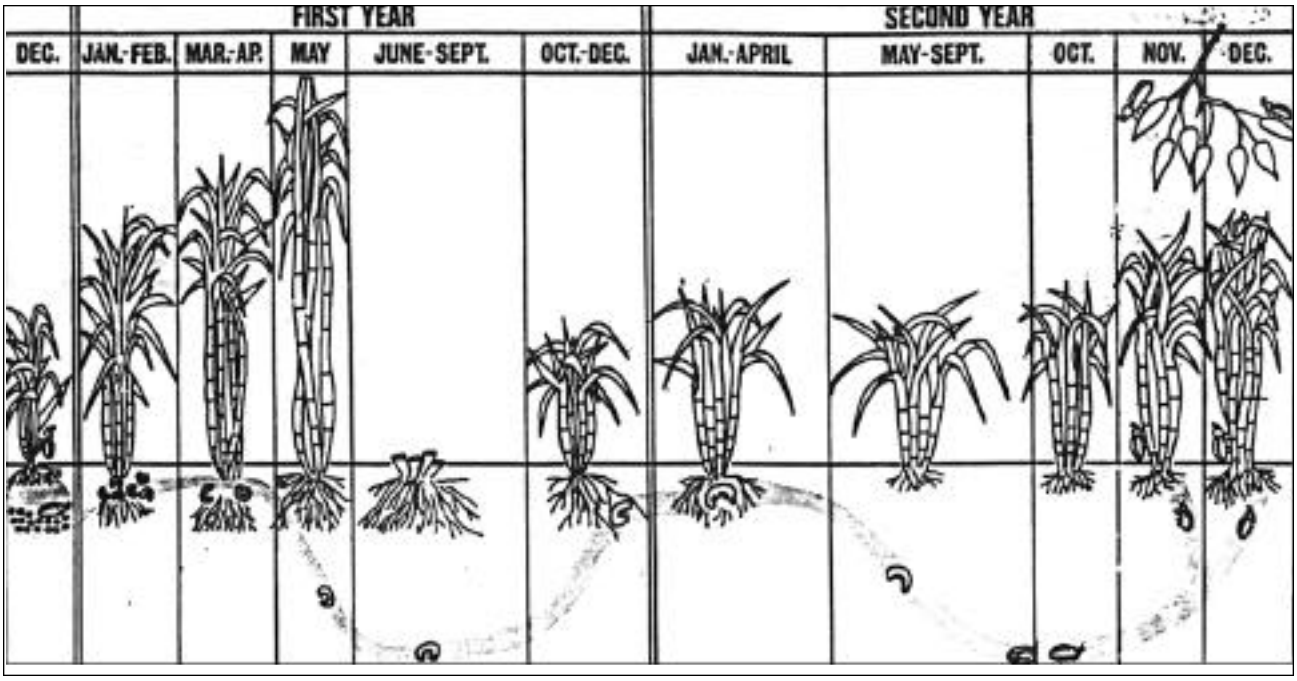

Figure 3. Childers canegrubs have a two-year lifecycle.

DAMAGE

Feeding Childers canegrub larvae prune roots from newly ratooning sugarcane during spring and early summer. Ratoons grow poorly, leaves turn yellow, and, in severe cases, the stools will die. If the damage is not too severe, plants may recover during later summer and early autumn, but yields will not be reduced. An average of about three grubs per stool will cause economic losses. Damage usually occurs in patches within fields.