

Lesser grain borer: *Rhizopertha dominica*



Characteristics

The lesser grain borer is a cosmopolitan pest of a wide variety of food. It is a small, long (3 mm) reddish-brown to black-brown beetle. The overall shape of the body is slim and cylindrical. The hood shaped rounded neck shield extends over the head hiding it. Pits on the shield become gradually smaller towards the rear. The last three segments of the antennae form a loose club. Adults can fly.

Diet:

Lesser grain borers feed on a variety of foods, mainly cereals, but also include flour, macaroni, beans, chick peas, dried potato, edible bulbs, lentils, herbs, and wood in their diet. Preferred grains include wheat, rye, corn, rice, and millet. Oilseeds and spices are not suitable for larval development.

Biology:

Eggs (up to 500 per female) are laid either on kernels of grain or loose frass produced by the insect. The egg stage lasts 32 days at 18.1 °C to about 5 days at 36°C. Larval development is more rapid on whole grain than on meal made from the same grain. Young larvae cannot penetrate undamaged kernels. If inside whole kernels, larvae molt four to five times, where as if in whole meal, they will molt two to seven times. Larval development usually takes 27-31 days at 28°C and 46 days at 25°C. Pupation takes place in an enlarged cell where the larval feeding tube ends. The duration of the pupal stage is approximately 5-6 days at 28°C. Oviposition starts approximately 15 days later and can last up to 4 months. Females survive for several days after oviposition ceases. Adult lesser grain borers fly readily, at least during certain times of the year. They are not strong fliers, often being carried by air currents. Both adults and larvae cause considerable damage. Adults have very powerful jaws, powerful enough to bore into wood.