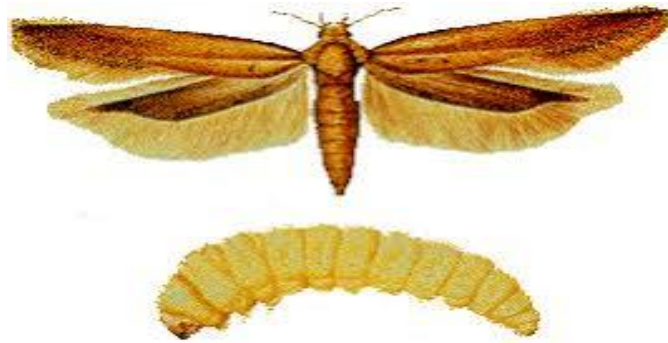


**Angoumois grain moth:** *Sitotroga cerealella*



**Characteristics:**

The wingspan is 1/2 inch. The forewings are clay-yellow and without markings; the hind wings are gray. The rear edges of the forewings and hind wings are fringed. Adults do not feed. Young larvae are white except for their head which is dark. Full-grown larvae are usually yellowish white with a yellowish brown head. Larval size may vary depending on sex, food, and environment. 5 mm is about average larval size.

**Diet**

Angoumois grain moths can be found infesting a variety of grain and food materials. They attack all cereal grains, however are most often found in corn and wheat. It prefers damp grain in preference to old dry grain. It is the only storage pest that will attack standing grains in the field.

**Biology:**

Eighty to 200 eggs are deposited on the outside of the kernel, grooves or holes made by other insects and the larvae bore into the kernel. The larva remains inside the kernel until adult emergence. There are three larval molts. The last larval instar usually spins a silken cocoon within the feeding cavity. The pupal case can be reddish brown to nearly black, depending on age. Adults emerge through a small round hole in the kernel. Upon adult emergence, females move to a surface above the food to release the sex pheromone. Males are attracted to this pheromone for mating. Development time from egg to adult varies with temperature from 30 days at 30°C and 40 days at 25°C. Minimum temperature / RH for development is 16°C / 30% RH; optimum is 30°C / 75% RH and the maximum is 36°C. Adults are generally short lived (about 7 days) and not feeding. Like many moths the peak time for flight activity is dusk. Females alight on grain and are simulated to oviposit. Air that has passed through the grain, especially grain that has some mold growth, acts as an attractant. Angoumois grain moth can coexist with saw toothed grain beetle. However, maize weevil or lesser grain borers totally suppress Angoumois grain moth populations. The larva is dormant for four to five months during the winter in colder climates. There are generally four to five generations per year, although in heated warehouses there may be as many as 10 to 12 generations.

