

Rice Weevil



The **rice weevil** (*Sitophilus oryzae*) is a serious stored product pest which attacks several economically important crops, including wheat, rice, and maize. The adults are around 2 mm long with a long snout. The body color appears to be brown/black, but on close examination, four orange/red spots are arranged in a cross on the wing covers. It is easily confused with the similar looking maize weevil.

Adult rice weevils survive for up to 2 years. Females lay 2-6 eggs per day and up to 300 eggs over their lifetime. The female uses strong mandibles to chew a hole into a grain kernel after which she deposits a single egg within the hole and seals the hole with secretions from her ovipositor. The larva develops within the grain, hollowing it out while feeding. It then pupates within the grain kernel and emerges 2-4 days after eclosion.



Male *S. oryzae* produce an aggregation pheromone ((4S,5R)-5-Hydroxy-4-methylheptan-3-one) to which males and females are drawn. A synthetic version is available which attracts rice weevils, maize weevils and grain weevils. Females produce a pheromone which attracts only males. Control of weevils involves locating and removing all potentially infected food sources. Rice weevils in all stages of development can be killed by freezing infected food below 0 degrees Fahrenheit for a period of three days, or heating to 140 degrees Fahrenheit for a period of 15 minutes.

