RICE WEEVIL

INTRODUCTION

The rice weevil is considered by many to be the most important stored product pest. It has worldwide distribution but primarily in warm climates. In the United States, it is usually confined to stored grain north of North Carolina, but is widely distributed in field and stored grain in the south.

RECOGNITION

Adults ***about 1/8"*** (2.5-3.5 mm) long. Color dull ***reddish brown, elytra*** (wing covers) ***usually with 4*** faint reddish to yellowish ***paler marks.*** Punctures or ***pits on thorax round*** or irregularly shaped, ***deep,*** midline of pronotum usually puncture-free. Wings fully developed, ***can fly.*** Male's ***snout/beak*** shorter, wider, with more distinct punctures than that of female's. Male aedeagus (penis-like structure) with outer surface smooth, its upper surface convex in cross-section.

Larva legless. Color creamy white with brownish-black head. Thickened in middle (humpbacked), and relatively smooth. Labial palp usually with 7 or 8 sensory papillae (tiny fingerlike projections).

BIOLOGY

The rice weevil female bores a hole into the kernel of grain and lays an egg, sealing the opening with a gelatinous material. Females can lay 300-400 eggs in their lifetime but egg laying is sporadic during the winter time, with less activity the cooler the temperature. There are 3-4 instars which require an average of 18 days for development. The pupal stage requires an average of 6 days (range 3-9) and upon transformation, the adult insect will remain within the kernel for 3-4 days until it hardens and matures. The life cycle (egg to egg) may be as short as 32 days in the summer. The adult may live for 3-6 months.

HABITS

The rice weevil is usually confined to stored grain north of North Carolina. In the south, adults fly from stored grain to infest the new grain crop in the field and the infestation continues through storage.

It has been recorded attacking corn, wheat, rice, beans, nuts, cereals, rye, buckwheat, stored cotton, wheat products of all kinds, and grapes. In addition, it will feed on apples and pears. Optimum conditions for rice weevil activity are 80-86°F (27-30°C), 75-90% relative humidity, and grain of 13.5-17.6% moisture content.

When disturbed, it will draw its legs up to its body and play “possum.” Adults can fly and are attracted to lights.