

PEA WEEVIL Coleoptera: Bruchidae *Bruchus pisorum*

DESCRIPTION

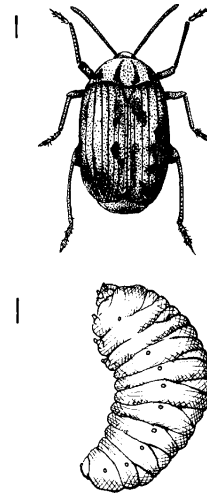
Adults are 4 to 5 mm long, gray or brownish-gray with a distinct white spot on the base of the pronotum, small white patches and a white line across the wing covers, and a large "airplane-shaped" white spot on the exposed portion of the abdomen. **Larvae** are crescent-shaped, white or cream colored and about 6 mm long when mature. **Eggs** are orange, oval, and about 1.5 mm long.

ECONOMIC IMPORTANCE

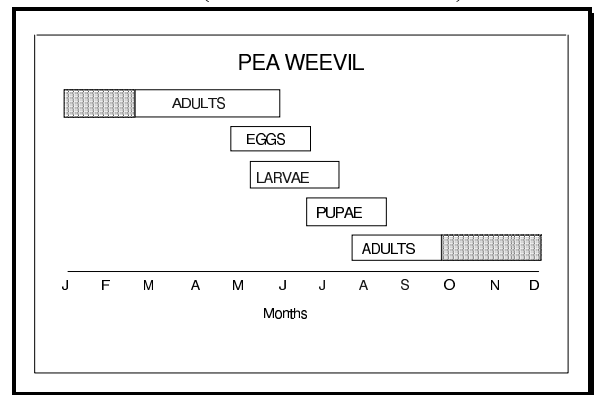
The pea weevil is one of the most destructive insects on peas in the northwest. Damage is caused by larvae feeding in the developing pea seed. One larva develops in each seed, but nearly every pea may be infested when large numbers of eggs are laid on the pods. Infestations affecting 30 to 70% of the crop have been observed. Average infestations may range from 0 to 90% in eastern Washington and northern Idaho. Infested peas cannot be used for human food, germination is lowered, and the value for livestock feed is reduced.

DISTRIBUTION AND LIFE HISTORY

This pest is distributed worldwide, but is particularly damaging in the northwest. Adults overwinter in alfalfa, peas or in other perennial legumes, in peas in storage or in the field, or in protected areas under trash along field margins and wooded areas (under bark of Ponderosa pine in Idaho). Adults migrate into pea fields about the same time peas are blooming (peak flights usually occur in May). Females lay about 100 eggs singly or in pairs on the outside of developing pods. Eggs hatch in eight or nine days and larvae feed through the pod into developing peas. Larvae feed for up to five or six weeks before pupating inside the peas. Depending on temperature, it takes one to three weeks for the adult to emerge. Adults may leave the pea immediately or stay inside the pea all winter and emerge the following spring. The complete life cycle from egg to adult takes about two months. Adults emerge from peas planted in the spring during late July or early August. There is one generation each year.



(after USDA Bull. 1971)



MANAGEMENT AND CONTROL

The principal sources of pea weevil infestation are: 1) peas shattered in the field, 2) volunteer peas, 3) pea hay containing weevil-infested peas, and 4) weevil-infested seed in storage. Cultural practices that eliminate these sources of infestation can significantly reduce damage. Plant weevil-free seed or seed that has been fumigated. One weevil in 25 sweeps may result in 10% infested peas at harvest. To estimate the population, samples should be taken along field margins, along fence rows, weedy areas, and in the field. Insecticides may be used to control adults, but they must be applied before adults lay eggs. If insecticides are needed, they should be applied when there is bloom and when the majority of the adults have entered the fields. See the Pacific Northwest Insect Control Handbook for precautions when applying insecticides to blooming crops.