

Southern cowpea weevil

The Southern cowpea weevil, *Callosobruchus chinensis* (L), has a wide host range including peas, chickpea, pigeon pea, garden peas, cowpeas, mung beans, black-eyed peas, soybeans, lima beans, lentils, and wild legumes. There are many species of *Callosobruchus* that have been attacking pulses in different parts of the world but one of the most common ones is Southern cowpea weevil. Transportation often plays an important role in the movement of this pest. In Montana, this weevil has been confirmed by entomologists from lentil shipping containers in the last few years (since 2015). The adults are brownish and greenish brown in color. It takes 20–23 days to complete the life cycle. Adults glue eggs on seed surface of host plants. Eggs hatch in 5–6 days and first instar larva burrows deep into the seed through the base of the seed. All larval stages complete within the single seed. Temperature and humidity greatly influence the development and survival of these weevils. Adult leaves a distinctively curved exit hole in the seed's casing. Feeding damage and exit holes reduce the germination and market value.



Figure 1. Life stages of Southern cowpea weevil

Assessment and Control

Awareness and vigilance are required for its assessment. Long legs and antennae are distinctive features of this pest. Overwintering of this weevil in Montana is less likely due to less tolerance of eggs and larval stages to low temperatures of Montana climate. As chemical management, fumigation of infested stored seeds and spraying with organophosphates chemicals can minimize the infestation. Drying and heating can reduce infestation of seeds without affecting seed germination. Good hygiene habits while storing the seeds and the removal of infested crop residue from the field is required. Some parasitoids are also known.

Research

WTARC will be monitoring on the incidence of the pest in pea fields and grain elevators in Montana.