

Cabbage Seedpod Weevil

The cabbage seedpod weevil,

Ceutorhynchus obstrictus (Marsham) is a widely distributed pest of cruciferous crops in Europe and North America. Adults move to canola fields at the bud to early-flowering stages and feed on flower buds. Eggs that are deposited in immature pods hatch in about 6-7 days, and females continue to lay eggs until they die later in the season. Larvae are white and grub-like, without pro legs. After hatching, the larvae begins feeding within the pods on developing seeds. Mature larvae chew circular exit holes in pod walls, drop to the soil, and pupate (Fig. 1).

Threshold Levels

Cabbage seedpod weevil nominal thresholds are based on sweep net numbers, which requires proper sweep net technique. The nominal economic threshold for weevil was set at 30-40 in 10 sweeps (3-4 per sweep) in 2001, and has been lowered to 2-3 per sweep based on higher canola prices.

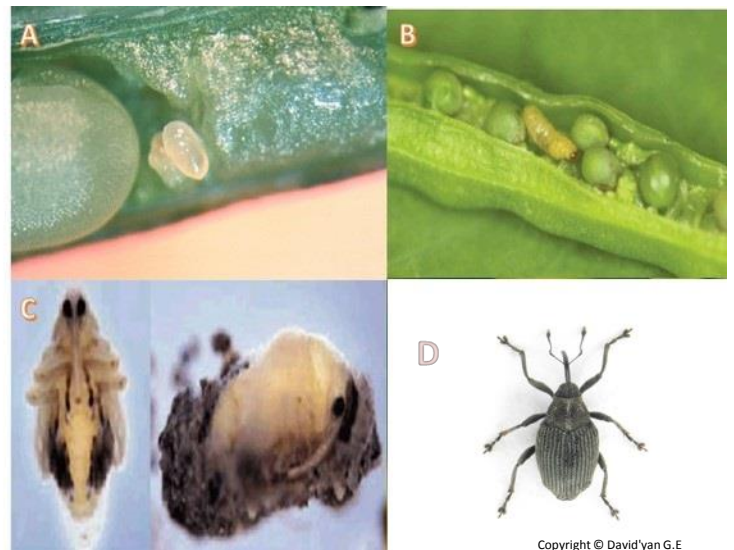


Figure 1. a) Cabbage seed pod weevil a) egg, b) larva inside the pod c) pupae, d) adult

Yield loss results from larval feeding within the seedpods. Pods bearing exit holes made by larvae are also predisposed to premature shattering, thereby leading to loss of seeds. In rare cases, new generation adults can cause some damage in late maturing canola fields near harvest time but due to pre-harvest intervals restrictions on insecticides, these cannot be sprayed. Current control measures for the cabbage seedpod weevil still rely on applying registered broad-spectrum insecticides.

Research

Pheromone based attractants may make monitoring easier in the future. Fungal biocontrol using entomopathogenic (insect killing) fungi may reduce pest populations below threshold levels. These and other strategies are proposed by WTARC in the Spring of 2016.



Figure 2. Damaged seed pod by larval feeding