Banana Corm and Pseudostem Weevils

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Introduction

Banana is an important crop but its production is constrained by a number of pests. In recent years, The banana corm weevil, *Cosmopolites sordidus* and banana pseudostem weevil, *Odoiporus longicollis*, are becoming major and common pests in banana farms. The infestations result in yellowing of leaves, plant toppling and reduced bunch weight and size. Weakening of corm or pseudostem by the larvae tunneling causes the plants to be susceptible to wind damage and unable to bear the weight of the maturing fruit bunch, and thus resulting in plant snapping.

Poor sanitation can be the main reason for the weevil outbreak. The banana weevils are attracted to volatiles emanating from the banana plant and the harvested and cut stems or rhizomes are especially attractive, and therefore they become breeding ground for the weevils.

Plant toppling

Unwanted plant not cut to the ground level can become breeding ground for weevils.

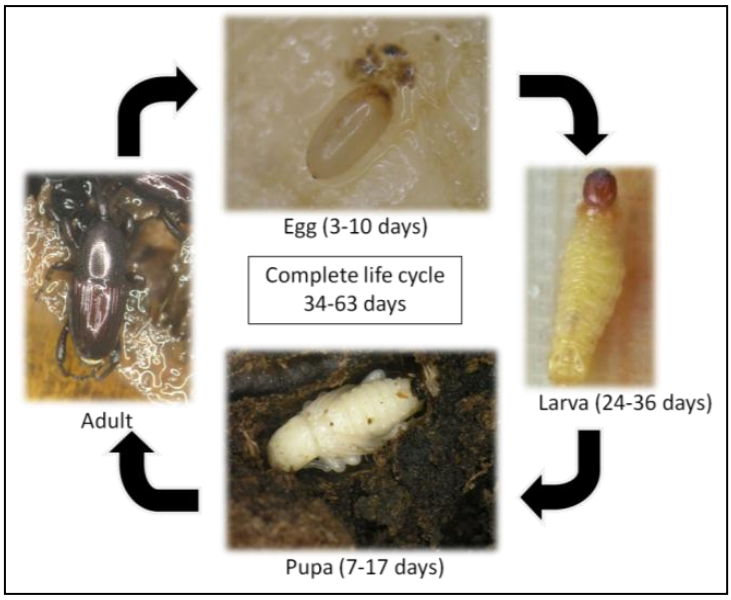
Pest Biology and Life Cycle

A. **Biology and life cycle of banana corm weevil, *C. sordidus***

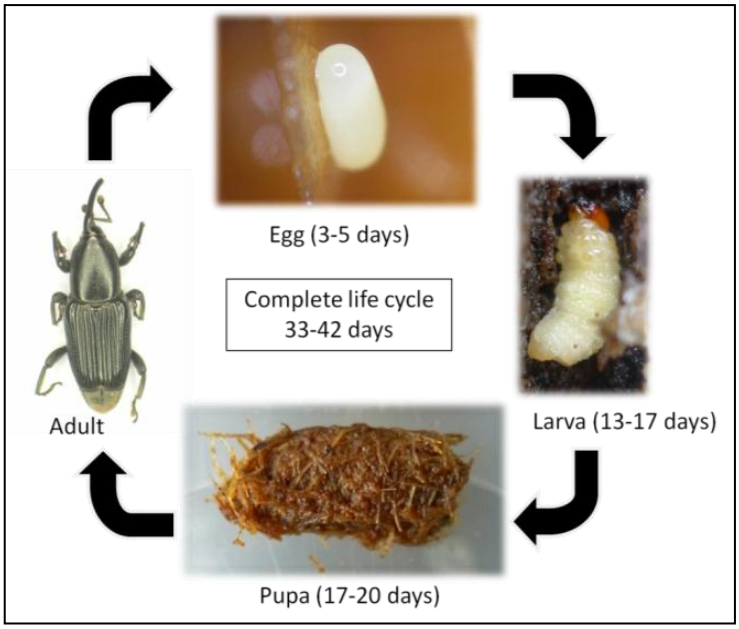
The adult is black and measures 10 – 15 mm long. Adults have well developed wings but flight is rare. They display feigning death when disturbed. The white, oval eggs are laid singly in the leaf sheaths or corm surface. The larvae are whitish grubs. Newly emerged adult may be black or reddish brown but soon becomes uniformly black. All of the life stages are highly susceptible to desiccation.

B. Biology and life cycle of banana pseudostem weevil, *O. longicollis*

The adult is black or reddish brown and measures 10 – 15 mm long. Adults usually confined themselves within the pseudostem and in the decomposing banana tissues. They are strong fliers. When disturbed, they feign death. Eggs are whitish and oval, laid singly in the air chamber of the leaf sheaths and the larvae are whitish grubs, similar to those of banana corm weevils. Pupation takes place within a fibrous cocoon. All of the life stages are highly susceptible to desiccation.



***Life** cycle of banana corm weevil*



***Life** cycle of banana pseudostem weevil*

Damage symptoms

A. Banana corm weevil, *C. sordidus*

Damage attributable to adult weevil is relatively little and considered negligible. Damage is caused by larvae tunneling in the corm. Larva tunnels interfere with root initiation, plant nutrition and water transport, resulting in plant stunting, delayed maturation, reduced fruit size and bunch weight, and plant snapping or toppling. Affected corms are riddled with tunnels. Young infested suckers often wither and fail to develop. Plants are unable to bear the weight of the maturing fruit bunch and are susceptible to wind damage. Breakage occurs at the base.

B. Banana pseudostem weevil, *O. longicollis*

Damage attributable to adults is relatively little and considered negligible. Damage is caused by larvae tunneling in the pseudostem. The tunnels are widespread and may go as high as the fruit peduncle or as low as the collar region near the corm. Early symptoms of the infestation are the presence of small holes and fibrous extrusions from the holes on the pseudostem. At later stage of infestation, the pseudostem will split open, with extensive tunneling in the pseudostem. When the true stem are tunneled after flowering, the fruits do not develop properly. Plants are unable to bear the weight of the maturing fruit bunch and are susceptible to wind damage. Breakage often occurs at the pseudostem.

Affected corm is riddled with tunnels.

For corm weevil damage, plant is susceptible to wind damage, breakage at the corm.

Small holes indicating presence of pseudostem weevil.

Pseudostem weevil damage.

For pseudostem weevil damage, plant is susceptible to wind damage, breakage at the pseudostem.

Treatments

Cultural practices
Cut harvested and infested banana plants to the ground level. Cut infested plants and plant residues into small pieces and expose to sunlight.

Trapping
The traps are made from pseudostem cut into 45 cm section, split longitudinally. Place the traps near the mat, with the split surface facing the soil. In the long term, the adult population will decrease.

Cut infested plants and plant residues into small pieces and expose to sunlight.

Traps are made from pseudostem cut into 45 cm section, split longitudinally and placed near the mat.