

Control of stalk borer by cutting maize stalks

Recognize the problem

Stalk borers are pest insects and can cause maize yield losses of up to 30%. They are 0.5 to 2 cm long white-yellowish caterpillars that first feed on maize tips, and later in the maize cob and maize stalk. The damaged plant appears stunted with broken tips and slightly yellowed upper leaves. The plant cannot produce yield as the upper broken part dries.

Background

Stalk borer adults are moths that do not cause any damage. They lay eggs on the tips of maize plants about 40 days after the crop is planted. The eggs then hatch into larvae which tunnel from the tip of plant through the stalk/stem. The larva changes into a pupa (inside a cocoon) and later emerges as a new moth. The larvae live in the stalk, feed on its content and then wait in the stalk until the next cropping season. Stalk management techniques help to control the stalk borer larvae and pupae so that there is minimal population build-up for the next cropping season. The technology is feasible, cost effective and protects the environment, while reducing the use of pesticides to control stalk borers.

Management

After harvesting the crop, a massive cutting down of stalks should be carried out in the whole village or farms:

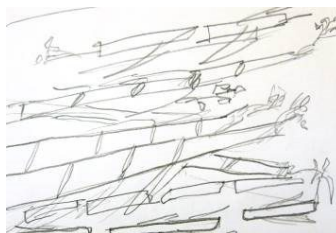
- Cut down the stalks at the ground by hand hoe, chop them with a knife or break them, and spread them in the field
- The heat from the sun and soil surface kills the larvae and pupae in the stalks
- Some larvae are eaten by ants and birds
- The stalks could also be grazed by livestock, but make sure that no stalks remain standing in the field
- Cutting the stalks kills up to 95% of the dormant larvae and pupae per season

If only a few farmers are practising this technology, then it may not be effective because the larvae from standing maize stalks in neighbouring farms could pupate, become adults and infest the crops of other farmers who did practise stalk cutting.

Broken maize tip due to stalk borer infestation. (Photo by S. Toepfer)



Cut and chopped maize stalks laid on ground surface. (Photo by L.W Kitandu)



Scientific name(s) > *Busseola fusca*

The recommendations in this factsheet are relevant to: Kenya, Tanzania



Authors: Lazaro Kitandu
Ministry of Agriculture, Food Security and Cooperatives MAFSC
tel: +255 754 673154 email: lazkitandu@hotmail.com

Edited by Plantwise.