



drdar

Department:
Rural Development & Agrarian Reform
PROVINCE OF THE EASTERN CAPE

MAIZE SPOTTED STALK BORER

Introduction

The Spotted Stalk borer is originally from Asia. In South Africa, it is one of the major pests of maize and sorghum in the field. The pest is found along the coast and in medium altitude areas (1230 m altitude and below). Hot spot sites in the Province include , Centane, Willovale, East London, Ncerha, Mooiplaas, Ngqeleni, Port St Johns Kenton on Sea, Alexandria and Bizana

Damage

Damage is caused by larvae (caterpillars) that eat through leaves when young and as they grow older, eventually bore into the stem causing it to break (lodge) or die resulting in a condition called 'deadheart'.

Stage when plant is attacked

Vegetative stage or before harvest. Younger plants less than two months old are more often attacked than older plants

Cultural control

- Intercrop cereal crop with non host plants such as beans or a repellent plant such a Silver leaf desmodium and then plant a trap plant (Napier grass) as a border crop around the intercrop
- Destroy maize residues by burning them to get rid of the larvae and pupae within the stems
- Remove volunteer crop plants and/or alternative hosts to prevent carry-over populations



Plant part affected

Feeding by younger larvae occurs in leaf whorls while older larvae tunnel into the stem. Older larvae may also eat into the cob in older plants.

Yield losses

Yield losses are variable across regions, seasons, plant species and varieties, and management regime on farms. Yield losses may exceed 20% on maize and 50% on sorghum. Where no control is being done, yield losses may reach 100%

Chemical control

- It can be achieved by applying insecticides to the leaf whorl early in crop growth to kill young caterpillars
- This method has limited effectiveness once the larvae bore into the stem
- Insecticides are poisons so it is important that farmers follow all safety precautions on labels

Damage symptoms

Damage occurs as a series of small holes in lines (pin holes) in younger leaves and/or patches of transparent leaf epidermis (windowpanes) in older leaves. Holes in stem caused by larvae tunneling into the stem can result in broken stems or drying and eventual death of the growing point of the maize (deadheart).

Scouting

Scouting is done as follows:

- Walk through young maize/ sorghum plants, look for characteristic feeding marks on funnel leaves, presence of deadheart, and holes in tunneled stem.
- In older crops and in crop residues take random samples of stems to dissect to find caterpillars and pupae.