

USING NAPIER GRASS TO CONTROL STEM BORERS

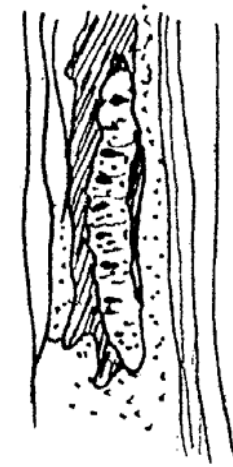


Napier grass is an effective catch crop for controlling stem borers. When Napier or elephant grass is planted round maize or sorghum fields, the stem borers are attracted to the grass and damage to the crop is minimised. The Napier however can still be cut and fed to livestock. Plant a row of Napier grass all the way round maize fields.

STEM BORERS

(*Busseola fusca* and *Chilo partellus*)

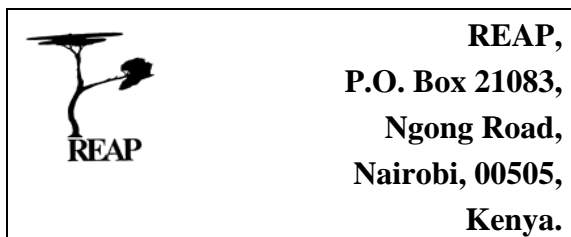
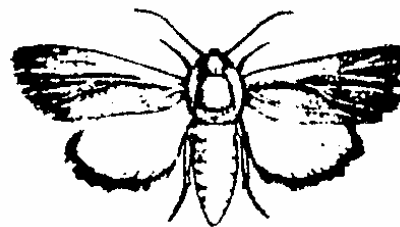
Stem borers are a serious pest to maize and sorghum. They are the larvae of several kinds of moths. They are like worms that bore into the stems of the growing plant. They sometimes eat the growing point so that the plant does not flower, and they also make the stem weak so that the plant is easily blown over. Small black caterpillars may often be seen at the growing point of the plant or in the holes where the plant has broken. In severe attacks the central leaves may die. In older plants the caterpillars may be found boring into maize cobs. They can build up from year to year on land used for growing maize or sorghum for many years. They particularly attack late crops.



Life Cycle

The moths mate and deposit their eggs in groups of 30-100 on the inner leaf sheath of the plant near the funnel.

The larvae feed on the funnel and then tunnel into the young plant.



HOW TO PREVENT STEM BORERS

Stem borers are difficult to control once in a field. It is worthwhile therefore putting in effort to prevent them.

To prevent stem borers: -

1. Collect and burn any infected stems.
2. If stem borers are particularly bad on one patch avoid using it for sorghum or maize the next year. Practice crop rotation.
3. When stems are left standing in the field after harvest the stem borers can easily stay there through the dry season. When the stems are knocked down at harvest, the stems are eaten by termites and rot well so the infestation is reduced. So maize and sorghum stalks should be knocked down so that they rot quickly after harvest.
4. Intercropping, as is common in many sorghum-growing areas, is a good means of reducing stem borers. Include legumes such as beans and cowpeas in the crop mixture with both sorghum and maize. The other crops confuse the moths that recognise the shape of sorghum or maize seedlings when laying their eggs. The mixture therefore helps reduce the borers.
5. Sorghum stems are often a valuable part of the crop and have many uses including fencing. These stems can be a major source of infection to the field. The stems

are normally stacked in the shade. Exposure of the stems to the hot sun is very effective in reducing the level of stem borer and therefore infection in the field. If the stems are spread thinly in the sun to bake for three days most of the larvae sheltering in them are killed, greatly reducing infection of the field in the next year.

Stem borer moths are more active during full moon and are attracted by a crop 3-4 weeks old. Planting is therefore best done between full moons. Early planting is also important.

HOW TO CONTROL STEM BORERS USING SOIL OR ASH

Wood ash or soil, or a mixture of both can be used to control stem borers.

1. Ash or soil should be used when maize plants are between 45 and 90 cm (1.5-3 feet) high.
2. Sieve the ash or soil to remove any larger particles, which could damage the plant.
3. Take about a teaspoonful of the soil or ash and put it into the funnel made by the new leaves. Do not use too much soil or ash as it can damage the leaves.
4. It is best to use the ash or soil before any sign of stem borer attack