

Biocontrol of Sugarcane stem borer

Recognize the problem

Stem borer caterpillars can damage up to 80% of a sugarcane field. They cause great economic loss for farmers because the sugarcane loses up to 30% of its sugar content. They attack mainly during the months of April to June. The caterpillar is dirty or creamy white, has five dark lines across its back and is about half the size of a small finger. When it attacks the sugarcane, the entire plant dries up and produces dead hearts, which cannot be pulled out easily. We can also see bore holes close to where the stem and leaves meet. This stem borer can easily be confused with the top borer, which also produces dead hearts but these can be pulled out easily.

Sugarcane stem borer. (Photo by NBAIR)



Background

Biological control involves using live animals/insects/fungi to kill the pest that is destroying the crop. Trichogramma is a small insect used as a biological control method. Trichogramma works by hatching and killing the eggs of stem borers when they are still young. Trichogramma is put on cards which contain 50 – 100 eggs. They do not like direct sunlight as it dries them up and kills them.

Adult moth. (Photo by NBAIR)



Management

- It is possible to buy Trichogramma cards from government biological control laboratories. Find out from your extension worker or local DOA office where you can purchase these. Make sure they are of good quality, so that they are most effective.
- Use the Trichogramma cards from March to June. Replace them every 15 days to ensure the biological control method is continually working.
- Attach Trichogramma cards to the underside of leaves of sugarcane in the evening because the biocontrol works best when the temperature is lower
- Use 16 cards per acre. Make sure they are placed throughout the field and cover each section.
- Maintain a distance of 50 feet between the two cards

Scientific name(s) > *Chilo infuscatellus*

The recommendations in this factsheet are relevant to: Pakistan



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