Shoot and fruit borer of brinjal

Recognize the problem
Eggs are laid during the night on the lower surface of the young leaves, green stems, flower buds, or calyces of the fruits. Within an hour of hatching, the caterpillar (larva) bores into the nearest tender shoot, flower, or fruit. Soon after boring into shoots or fruits, they plug the entrance hole with excreta. In young plants, caterpillars are reported to bore inside petioles and midribs of large leaves. As a result, the affected leaves may drop off. Larval feeding inside shoots results in wilting of the young shoot. The damaged shoots ultimately drop off, disturbing plant growth and reducing fruit number and size. New shoots may grow but this delays crop maturity. Larval feeding inside the fruit results in the destruction of fruit tissue, making even slightly damaged fruit unfit for marketing.

Background
Brinjal fruit and shoot borer (BFSB) is a very important pest on brinjal and is one of the main impediments to brinjal production across the country. It is an internal borer which damages the tender shoots and fruits. The yield loss varies from season to season and from location to location. It can also attack other crops such as other Solanaceae (e.g. potato, tomato), mango, sweet potato and pea.

Management
- Use long tolerant varieties e.g. Jhumka, Shingnath, Nayantara, Uttara
- Crop rotation with non-host plants would manage the disease
- Intercrop brinjal with other crops, such as cowpea, maize and coriander, which encourage natural enemies (e.g. spiders, lacewings and ladybirds) of the pest
- Collect and destroy dried shoot tips and bored fruits. Burn the infested parts and compost the crop remains to help prevent the build-up of the moth populations in a given area
- Pheromones can be used in low-cost water-trough traps @ 40-60 traps per acre. The pheromone traps will trap the adult male moths which reduces the reproduction rate of the pest which is an efficient way to control the pest.
- In severe cases, spray with flubendiamide (e.g. Belt) @ the dose specified on the label, alternately at 15 day intervals. Alternatively, any systemic insecticide could be used.

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > Leucinodes orbonalis

The recommendations in this factsheet are relevant to: Bangladesh