How to identify Spodoptera armyworms on maize

Recognize the problem

*Spodoptera* is a genus of moths which caterpillars cause damage to a variety of crops, including maize. They consume the leaves, creating holes and ragged leaf edges. Feeding through the maize whorl can cause a line of identical “shot” holes, when the leaf unfurls. Caterpillars also burrow into cobs and feed on the tassels and kernels when the plant reaches maturity and the young tender leaves are not available anymore.

Background

*Spodoptera* are called armyworms due to their behaviour of feeding in large groups which can quickly devour plants. *Spodoptera* species can look very similar to each other. They also display a variety of colours or patterns within the same species. It is important to identify the species before applying management or control methods.

Young <2 cm caterpillars

- *Spodoptera frugiperda* (fall armyworm): Greenish with black heads, soon turning light orange. Feed on young leaves emerging from the whorl causing window-pane damage.
- *Spodoptera exempta* (African armyworm): Green or light brown. Also causing window-pane damage when feeding on young leaves, and whorl.
- *Spodoptera littoralis* (cotton leafworm): Greyish or dark green body with a brownish head. Feed on lower side of all leaves, and whorl.
- *Spodoptera exigua* (beet armworm): Pale green or yellow. Feed on upper surface of all leaves, and whorl.

Older up to 3 cm or even 4 cm long caterpillars

- Fall armyworm: Light green to dark brown; backside often has thin white lines, and darker lines on its sides. Inverted light "Y" on front of head. Small black spots on body, and 4 spots in a square at end of body. Feeds on young leaves, whorl, tassels, silk and cob.
- African armyworm: Shiny black; thin dark blue lines on the top of the body; several greenish yellow lines at side. Inverted light "Y" on the front of the head, but doesn’t have the 4 spots on the second-to-last segment like fall armyworm. Feeds on young leaves, and whorl, and cob from the top downwards.
- Cotton leafworm: Dark green to reddish-brown or blackish-grey. Dark and light stripes run along the sides of the body, usually a bright yellow stripe along the sides. 2-4 dark semi-circular to triangular spots on the back. Feeds on all leaves, whorl, and cob.
- Beet armyworm: Green to dark brown, sometimes almost black, with green and dark brown stripes and spots running along the body. Darker stripe down the back and paler stripe along each side. Pink or yellow underneath. Feeds on all leaves, whorl, and cob.

Scientific name(s) > *Spodoptera frugiperda, S. littoralis, S. exigua, S. exempta*

The recommendations in this factsheet are relevant to: Ethiopia, Ghana, Kenya, Malawi, Rwanda, Tanzania, Uganda, Zambia

Authors:  CABI

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