

FALL ARMYWORM MANAGEMENT FACTSHEET

Introduction

The fall armyworm is a new invasive insect pest in Zimbabwe that has now spread across all provinces within the country. The pest multiplies very quickly and attacks a variety of crops but primarily it prefers maize and sorghum, causing a lot of damage to the leaves and seed kernalns of both crops in the field.

Identification (Know what the pest looks like at each stage of its lifecycle)



Figure 1

- Moths lay eggs in clusters of up to 200 eggs or more per cluster.
- Egg clusters are covered with greyish scales or bristles.
- Egg clusters are generally laid on the undersides of leaves.



Figure 2

- In 2 to 3 days the eggs will hatch into tiny larvae.
- Their feeding results in semi-transparent patches on the leaves.
- One batch of eggs has more larvae than the plant can handle, so many larvae move to neighboring plants.



Figure 3

- The larvae grow very quickly to become caterpillars. If not managed early they can enter the whorl and become extremely difficult to manage.
- Caterpillars can be greenish or brownish with stripes along the lengths of their bodies.
- Larger adults (about 1-3 cm) often have a visible inverted "Y" shape on their heads and 4 distinct dots towards the end of their body.

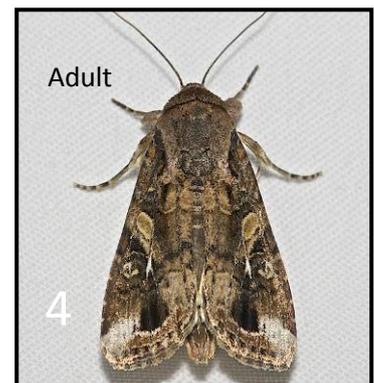
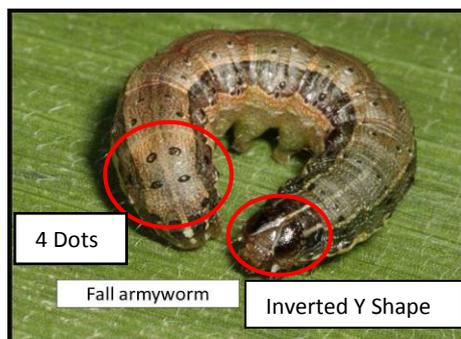


Figure 4

- When the caterpillar is fully grown it drops to the ground and forms a pupa (resting stage). An adult moth emerges about 8 days later to begin the cycle all over again.

What should farmers do to prevent loss and damage?

1: Prevent infestation

- Ensure you plant early at the onset of the first effective rains. Fall armyworm is often more damaging to late-planted maize.
- Inter-crop maize with other crops such as cowpeas, pigeon pea or lablab.
- **Scout your fields for the pest or signs of the pest 2 to 3 times every week.** The idea is to detect the pest early to prevent damage to crops. **Start scouting early when the crop is at the two or three leaf stage.**
- In each scouting session, select 20 plants in each of 5 randomly selected different locations and examine the plants completely.

- In scouting, one of your goals is to detect the pest when still in the egg stage so that you may destroy the eggs before they become larvae. The larvae or caterpillars are the threat to your crops.
- Once you find egg masses, go through your field and crush as many as you can find.
- It should be noted that it will be very difficult to destroy all of the egg masses in your field.
- When scouting, if you find larvae or crop damage such as window pane symptoms, caterpillars are present and you should take control measures, most often with pesticides.

2: Take control measures

- During scouting, if 10 to 15% (10 to 15 plants out of 100 are damaged), you should procure recommended registered pesticides and apply to the crop.
- Be diligent and consistent with scouting your fields for the pest. Early detection, especially at the larvae stage, is easier to control with pesticides in order to minimize potential loss.
- Newly hatched larvae are quite tiny (3 to 4 mm in length) and difficult to see but are the easiest to manage.
- Damage to leaves in the form of leaf scraping or window pane symptoms and holes shows there are larvae present.
- Spray your crops to reduce crop loss and yield reduction. This will help prevent larvae from entering the ears or the whorl where it is very difficult to manage them.



3: Use of pesticides

- Purchase recommended registered pesticides from registered and reputable dealers.
- Follow pesticide use and application guidelines shown on the label.
- **Use protective clothing when spraying and dispose of empty pesticide containers properly.**
- Apply pesticide to entire crop using a hollow cone nozzle for spraying over the funnel and covering the leaves.
- Spray early in the morning or in the late evening when caterpillars are active on leaves and there is little or no wind to avoid pesticide drift.
- Rotate chemicals from different pesticide chemistries to avoid pesticide resistance.
- **Please contact your Agritex Extension Agent or nearest reputable agro-dealer to determine the best insecticide(s) to use.**

Safety – Protective Gear

- Personal Protective Equipment
- Minimum:
 - rubber gloves,
 - eye protection,
 - long-sleeved shirt,
 - long pants,
 - mask,
 - closed shoes
- Avoid using cotton gloves or lightweight dust masks that may absorb the spray and increase contact with skin.

The diagram shows a person wearing a full set of protective gear: a long-sleeved shirt, long pants over boots, rubber boots, a waterproof hat, goggles, and long rubber gloves. A red arrow points from the text 'Use protective clothing when spraying and dispose of empty pesticide containers properly.' to the diagram.