



# SAIRLA



## GHANA NATIONAL LEARNING ALLIANCE

### The Fall Armyworm in Ghana: Pathways of Entry and Spread



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## Introduction

The Fall Army Worm (FAW) is known to have been in the country since 2016. However, it became very visible in 2017 when large hectares of cropped fields particularly maize were attacked. Given the importance of the maize commodity as a major food staple in Ghana, the FAW attack was so serious to attract national attention as it also threatened flagship programmes initiatives in the agricultural sector for food security. The common puzzling question on the lips of farmers, technical and policy actors is: how did the worm enter Ghana?

This information note, targeted at the agricultural sector actors especially policy-level personnel, is aimed at providing information on pathways of entry, the spread and prevention approaches for the effective and sustainable worm management and control into the future. This is in view of the fact that high infestation of the pest and resultant overuse and misuse of chemicals to manage the situation can have serious socio-economic and environmental consequences that are counter to the aims of Sustainable Agricultural Intensification (SAI) which is to increase agricultural productivity while maintaining socio-economic and environmental sustainability.

It is against this backdrop that the SAIRLA Ghana National Learning Alliance, through knowledge products such as this note, is seeking to make available research evidence and technical information accessible, handy and user-friendly to policy space actors to help them in taking appropriate decisions and adopting right approaches to dealing with the Fall Armyworm menace.

## FAW Entry Pathways

About six types of pathways of entry are known but three are considered here namely: contaminant of a commodity, carriage by transportation systems (air, sea and land) and unaided wind dispersal. Generally, introduction takes the form of eggs, caterpillar, pupae or adults and or a combination of any of these.



Adult FAW



Cluster of eggs



Young larvae emerging from eggs



Larva with inverted Y on the head



Plant damage

## The Spread of FAW

The adult moths fly actively and are known to move over long distances with air currents before depositing mass of eggs. This forms the wind-assisted method of spread. Transfer as a contaminant of a commodity for example fresh plant produce such as pepper, potato, tomato, fruits, cut flowers, seeds and other plant parts as well as on tarpaulins of vehicles are mechanisms of transfer and spread within and between countries.

## FAW Prevention

FAW prevention calls for a combination of strong phyto-sanitary precautions with thorough quarantine checks when trading in fresh produce between the countries. Farm and off-farm-hygiene within country will contribute to keeping FAW below acceptable thresholds. Transport systems such as aircrafts, haulage trucks and buses plying between countries will require regular checks and sanitization as the egg masses can be laid on inorganic materials (like tarpaulins, crates and cartons), while the adults can perch on them and transported across borders. Pheromones as repellants and attractants to traps may also be employed in the prevention of spread of FAW. Check excessive use of chemicals that may destroy the natural enemy of the FAW. Promote good agronomic practices by maintaining crop diversity or intercropping, carrying out effective on farm monitoring (at least scout once a week) and using agro-ecological farming among farmers. Once there is the occurrence of FAW, using a combination of control methods

Integrated Pest Management (IPM) is ideal. These should include all actions that will prevent the FAW:

- Adults from being attracted to each other;
- Adults from migrating;
- Adults from mating;
- Eggs, caterpillar and pupae from reaching maturity (early detection);
- From destroying crops.

## Take Home Messages

- A multi-stakeholder concerted action is key to check entry and spread as well as promoting effective FAW management.
- Beware of pesticide resistance build-up and use recommended pesticides appropriately.
- This has implications for well-coordinated partnerships between the formal and non-formal sector actors in the agricultural food systems.
- Share the information and you will be contributing to an early warning system on FAW.

## About SAIRLA

The Sustainable Agricultural Intensification Research and Learning in Africa (SAIRLA) programme is facilitating research and social learning in Ghana, and five other countries, to generate new evidence and decision-making tools to support policymakers and investors create an enabling environment for women, youth and poorer smallholder farmers to engage in and benefit from sustainable agricultural intensification (SAI). The Ghana National Learning Alliance (GH-NLA) is one of six national learning alliances under SAIRLA. The GH-NLA seeks to positively influence policy and investment decision-making processes in Ghana. This is done through continuous engagement with relevant stakeholders in research, policy, investment and media spaces on available research evidence on selected SAI themes.

<https://sairla.nri.org/>

### **Acknowledgement:**

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### **For more information on the Fall Armyworm, visit:**

<https://www.cabi.org/projects/controlling-invasive-species/fall-armyworm/>