

Food and Agriculture Organization of the United Nations

Fall Armyworm in Africa: Situation & Programme

## The Fall Armyworm is an insect pest

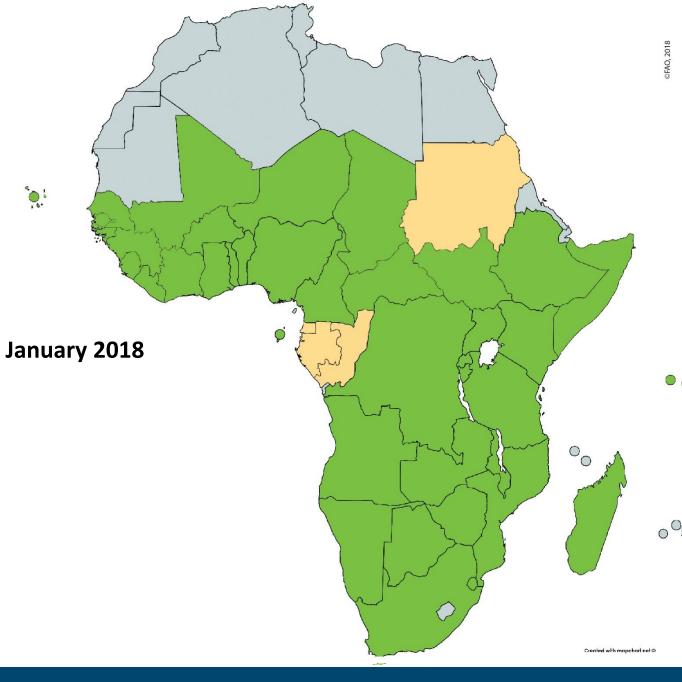
- Native to the Americas but now found across sub-Saharan Africa
- Feeds on more than 80 crop species, but prefers maize



## Fall Armyworm (FAW) in Africa

- First detected in early 2016
- Has spread rapidly





Sustainable management of Fall Armyworm in Africa: FAO Programme for Action

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# Maize & FAW management

Fall Armyworm in Africa: Situation & Programme



## In Africa, there are 37 million hectares of maize fields

- Of which 3 million hectares are large-scale producers
- More than 98% are smallholder family farmers

# **Immediate Responses**



Fall Armyworm in Africa: Situation & Programme

# FAO's actions

## Experts' meeting in Ghana, July 2017

- Lessons learned from the Americas for the sustainable management of FAW
- Coordination among partners to ensure coherent work
- Farmer Field Schools Curriculum Development

## Framework for Partnership for Coordination

# FAO's actions

## Resource Mobilization

- 27 TCP projects: in 25 countries, 1 regional and 1 inter-regional project (USD 7,419,735)
- 1 Trust Fund project funded by OFDA for Eastern Africa (USD 944,000)
- Japan South Sudan
- Irish Ethiopia & Kenya
- Three new TCP-E projects

## FAO Programme for Action



# FAO's Programme for Action: Sustainable Management of Fall Armyworm in Africa Five components

- Management of FAW: Farmer Education & Communications
- Testing and Validation of FAW Management Practices
- Monitoring, Risk Assessment & Early Warning
- Policy & Regulatory Support
- Coordination



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English

#### FAW Portal FOOD CHAIN CRISIS

Background How we work Resources Early Warning Bulletin FCC threats map

Fall Armyworm

Fall Armyworm (FAW), or Spodoptera frugiperda,

stage, it can cause significant damage to crops, in

not well managed. It prefers maize, but can feed

on more than 80 additional species of plants,

vegetable crops and cotton. In Africa, FAW was

first detected in Nigeria in January 2016 and has

quickly spread across virtually all of sub-Saharan

including rice, sorghum, millet, sugarcane,

subtropical regions of the Americas. In its larva

is an insect that is native to tropical and

#### Animal Health

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#### Plant Protection Fall Armyworm

Banana fusarium wilt

disease

Locusts

Red Palm Weevil

Food Safety



#### FAO's Programme for Action

- Sustainable Management of the Fall Armyworm in Africa: FAO's Programme for Action (also available in French)
- Summary of FAO's Programme for Action (also available in French)
- Presentation on FAO's Programme for Action

#### FAW Guidance notes

- 1. Fall Armyworm: Pesticide Risk Reduction
- 2. Fall Armyworm Scouting
- 3. Fall Armyworm Trapping

#### Briefing note

Briefing note on Fall Armyworm in Africa 16 February 2018

Map of areas affected by Fall Armyworm 14 February 2018

#### Guide on IPM of FAW on maize



#### Documents

 FAO's position on the use of genetically modified maize FAO's position on the use of

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- FAO's position on the use of genetically modified maize
- FAO's position on the use of pesticides to combat Fall Armyworm
- Advisory Note on Fall Armyworm (FAW) in Africa (also available in French)
- Key messages on Fall Armyworm in Africa (also available in French)
- How to manage Fall Armyworm (Spodoptera frugiperda) (also available in French)
- Fall Armyworm (Spodoptera) frugiperda): Identification, biology and ecology (also available in French)
- Info sheet: Fall Armyworm threatens food security and livelihoods across Africa

#### FAO Conference side event documents:

- FAO note on Fall Armyworm (also available in French-Spanish)
- Fall Armyworm Q&A (also available in French-Spanish)
- Fall Armyworm life cycle (also available in French-Spanish)
- EMBRAPA Presentation
- FAW Side event agenda

Resource Partners Consultative Meeting

28 November 2017 Rome, Italy

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Africa. Because of trade and the moth's strong flying ability, it has the potential to spread further. Farmers will need great support to sustainably manage FAW in their cropping systems through Integrated Pest Management.





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(b) CABI plantwise

HOW TO MANAGE FALL ARMYWORM (Spodoptera frugiperda)



### FALL ARMYWORM (Spodoptera frugiperda):

Identification, biology

Fall Armyworm (FAW) is a r

DAMAGE

# Fall Armyworm Management SIMPLE GUIDE FOR SMALLHOLDERS

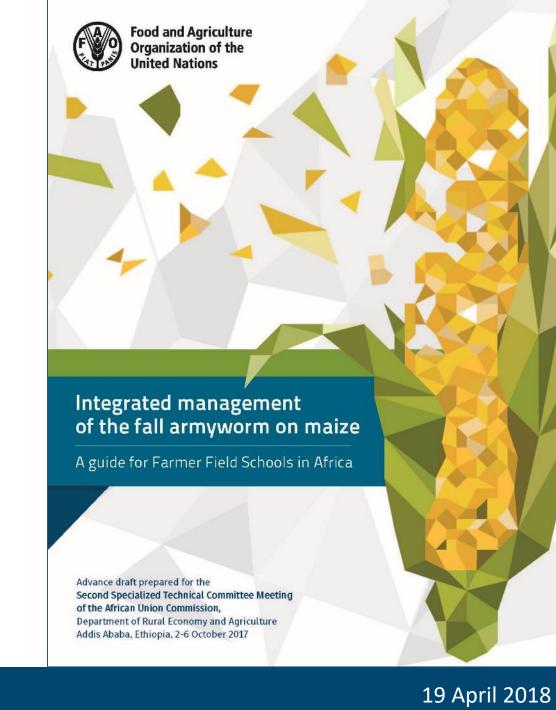
#### PREVENT

Sustainable management of Fall Armyworm (FAW) starts with prevention. There are actions that farmers can take before or when planting their fields to reduce infestation and impact of FAW in their crops. Key first steps include:

# Farmer education & Communications

## Farmer Field Schools

- Guide developed and launched
  - – English & French
- Sub-regional trainings planned in early 2018
- National-level roll-out of FFS
- Linking to national programmes, NGOs, IFAD, etc.



# **Testing & Validation of practices**

- Prevent with plant diversity.
- <u>"Recycling" pathogens</u>.
- <u>Attract predators & parasitoids</u>.
- <u>Locally produced biological controls</u> (Trichogramma, Bt)
- Locally-available substances (ash, soaps, botanicals, , applied directly to the whorl of infested plants.



# Pesticides

- Review of **pesticide** use including costs
- Advise to countries and regulators regarding pesticides – especially Highly Hazardous Pesticides
- Engagement of private sector of biopesticides
- Work with pesticide registration systems
- FAO Call of Interest bio-pesticides



## Fall Armyworm Monitoring and Early Warning System (FAMEWS) MONITORING = Field Scouting + Pheromone Trapping



FAMEWS mobile app developed by FAO IT-Services

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#### **FAW GUIDANCE NOTE 2**

#### FALL ARMYWORM SCOUTING

where a certain type of weed is almost always more One of the most important things that farmers can do to manage Fall Armyworm is to enter their fields abundant, etc.

at least once a week, more often when there are dynamic changes. This "scouting" will help farmers better understand the biology of the organisms in the field and their interactions (ecology). The increased knowledge should lead to better

"Scouting" means rapidly and systematically

determining overall crop health and estimating presence of certain organisms causing damage and potentially yield reduction.

decision-making and result in help farmers learn the variabil where the low-lying spots are t organic matter results in bette

fewer wasted resources and m smallholders (with less than 2 FAO Guidance Notes on standardised protocols for where the low-lying spots are differed FAW Scouting & Trapping to be used with FAMEWS app

## **FAW GUIDANCE NOTE 3**

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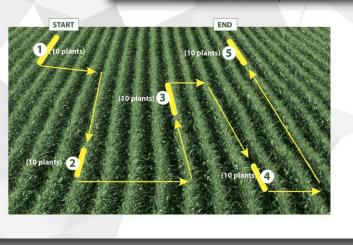
#### FALL ARMYWORM TRAPPING

ted. From these

sent in their d scouting.

The presence and build-up of FAW in a particular area can be detected by using pheromone traps. Pheromones are natural compounds that are emitted by female FAW moths to attract male moths for mating. Synthetic compounds that mimic natural FAW pheromones, often referred to as lures, are placed in traps to attract and trap male moths.

the seedling in order to best detect the first arrival of moths. A suitable location should be selected for positioning a trap. The selected site should be inside or on the edge of a maize field, or in an open area nearby. The trap should be hung from a suspended pole or branch about **1.5 m** above the ground. One trap should be used for every 0.5-2 ha.





The traps should be checked two times per week by counting the number of FAW moths inside:

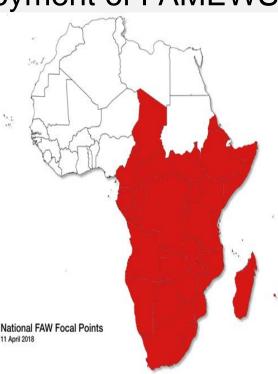
- 1. open the bucket trap by an anti-clockwise twisting of the low transparent bucket at the bottom of the trap while holding firmly the vellow funnel on top;
- 2. create a clean flat surface and invert the bucket to pour out the moths onto this surface;
- 3. remove any non-FAW moths and insects that may have been caught in the trap;
- 4. carefully count the number of FAW moths by putting counted ones to one side;
- 5. if you are in doubt as to whether the moth is FAW, then compare with the figure.

www.fao.org/food-chain-crisis/how-we-work/plant-protection/fall-armyworm/en/

#### 19 April 2018

FAMEWS Update:

- 1. FAMEWS mobile app was deployed in all African countries on 1 March.
- 2. FAO IT-Solutions is developing the Global Platform that allows national FAW Focal Points to validate their data before it is available for mapping and analysis.
- 3. Nearly all Sub-Saharan countries have FAW Focal Points deployment of FAMEWS mobile app and pheromone traps.
- 4. App (bit.ly/2FKraru) and training kit with docs, presentations, (bit.ly/2BZEW8q) available online in English/French.



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# Coordination

- National Task Forces
- Framework for Coordination endorsed by the STC of the African Union
- Technical Working Groups



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### **Next steps: FAW Programme & Partnership**

- Testing & Validation of practices
- Massive roll-out of Farmer Field Schools & Farmer education
- Massive roll-out of FAMEWS
- Pesticide use & policy
- Increasing partnerships & coordination
- Resource mobilization
- Costed Five-year programme: US\$ 87.5 million



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# FAO Fall Armyworm in Africa Programme for Action

Fall-Armyworm@fao.org Allan.Hruska@fao.org