

# Economic and environmental impacts of Fall Armyworm in Africa



-Can feed on more than 80 plant species  
-Critically damages early maize and at cob/head formation-



-FAW has spread to entire sub-Saharan Africa in less than 2 years  
-Key food security crops, maize and sorghum severely damaged  
-Estimated losses of 6.2 billion USD per year



Emergency responses have been based on pesticides, but they are unsustainable in the long term

## Lifecycle of Fall Armyworm



Eggs – the most vulnerable stage for any control but difficult to monitor



Larvae – highly damaging but resistant to synthetic pesticides and even to transgenic maize



Adults – Can migrate for several hundred kilometres, easy to monitor visually and with pheromone traps



Pupae – most cryptic life stage found in the soil difficult to target with pesticides

## icipe aims to develop and establish an integrated pest management for Fall Armyworm that is specific to Africa



## Resilient maize cropping systems



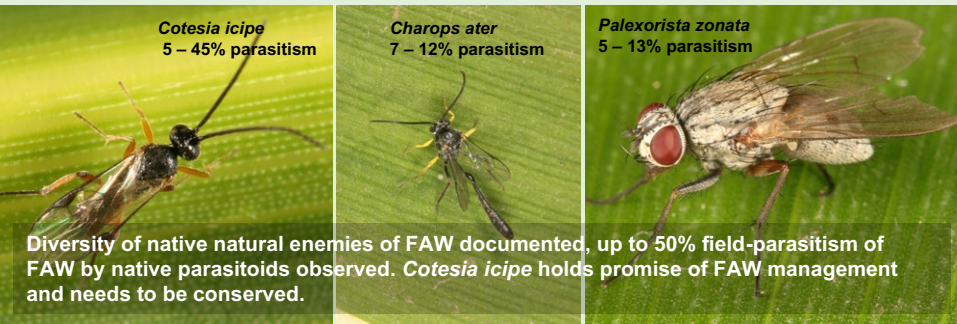
Fall armyworm incidence is reduced up to 80% in diversified maize habitat management systems such as Push-pull (left), while intercropping with edible legumes (right) can reduce FAW incidence by more than 30%

## Effective and timely monitoring



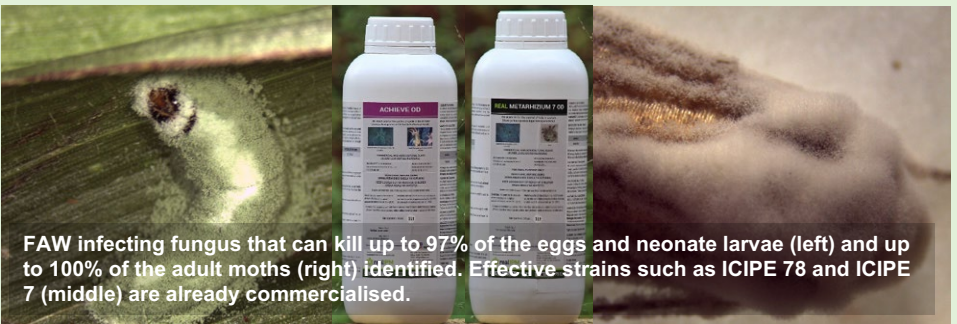
Monitoring tools, such as field scouting mobile apps (left) and pheromone traps (middle) optimised and a community-based FAW monitoring and realtime forecasting platform (right) piloted in eastern Africa

## Biological control



Diversity of native natural enemies of FAW documented, up to 50% field-parasitism of FAW by native parasitoids observed. *Cotesia icipe* holds promise of FAW management and needs to be conserved.

## Biopesticides and biorationals



FAW infecting fungus that can kill up to 97% of the eggs and neonate larvae (left) and up to 100% of the adult moths (right) identified. Effective strains such as ICIPE 78 and ICIPE 7 (middle) are already commercialised.

## Capacity building on Fall Armyworm management



More than 675 national agricultural extension staff and 430 growers trained on FAW monitoring and management



#### Core Donors



#### Key Project Partners



#### Project Donors



For more details about *icipe* and Fall Armyworm IPM activities, contact:

#### International Centre of Insect Physiology and Ecology (*icipe*)

P.O. Box 30772-00100

Nairobi, Kenya

Telephone: +254 (20) 8632000

Fax: +254 (20) 8632001/8632002

E-mail: [icipe@icipe.org](mailto:icipe@icipe.org)

Website: [www.icipe.org](http://www.icipe.org)

#### *icipe* STATIONS

##### *icipe* – Duduville Campus

Telephone: +254 (20) 8632000

Fax: +254 (20) 8632001/8632002

##### *icipe* – Thomas Odhiambo Mbita Campus

Telephone: +254 (59) 22216/7/8

Fax: +254 (59) 22190

Satellite line: +441707657334

##### *icipe* – Ethiopia Country Office

Telephone: +251 (1) 463215

Fax: +251 (1) 463215

##### *icipe* – Uganda Country Office

Wanale Road, Plot 10, Mbale, Uganda

Telephone: +256 (0)778 524647



## Fall Armyworm Integrated Pest Management (IPM) Updates

