# FARMY Newsletter



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### **Eritrea: FAW infestation remains low**

According to reports from the Eritrean regions, fall armyworm (FAW) infestation is still low throughout the country. The number of male FAW moths being caught by the indicative pheromone traps distributed all over the country is low but a bit higher when compared to that of May. In the month of May, only two male moths were caught per trap per week. However, in June this number raised to five, and is still tolerable. Since the main rainy season is coming, obviously, significant FAW outbreaks are expected.

To strengthen the national early warning systems, the Ministry of Agriculture in collaboration with its development stakeholders, procured additional 1500 pheromone traps recently and distribution to all regions is in progress.

According to regional reports, farmers who cultivated maize, are strictly taking care of their farms. Thanks to the mechanical measures taken in the previous season, the maize plants do not face major FAW problems this time. This doesn't mean that, this summer will be free

from FAW but its effects are expected to be low if farmers continue to strengthen scouting their farms and practice the mechanical measures.



## Ministry gives FAW mobile application training

The Ministry of Agriculture gave a series of trainings on mobile application from 01 -27 June 2018 in the Ministry's headquarters and in all regions except the southern region. The trainings which aimed at strengthening FAW Early warning systems, improving crop production practices and rainfall data reporting efficiency were very useful, according to the trainees. A total of 118 plant protection and agronomy experts representing all sub zobas participated in the trainings. Participants of the training are expected to report FAW incidences by using their cell phones through SMS.

It is to be noted that the FAW mobile application was developed by Software and Database Development Coordination (SDDC) Office of the Ministry of Agriculture.

Meanwhile, two senior experts from the Ministry namely; Mr. Tedros Sium, FAW focal person and Migratory pests control unit head; and Mr. Tesfalem Mesfun, a data base and software expert participated in a regional workshop on Fall Armyworm Monitoring and Early Warning System (FAMEWS) which was held from 19-20 June, 2018 in Maputo, Mozambique. The objective of the workshop was to strengthen countries' national early warning, monitoring and reporting systems through various mobile application tools such as FAMEWS.

The Fall Armyworm Monitoring and Early Warning System (FAMEWS) mobile app provides valuable insights on how the insect changes over time and space to improve knowledge of its behaviour in Africa - in a new context - and to guide best response.



## FAO develops technology to curb fall armyworm in Africa

The United Nations' Food and Agriculture Organization and Pennsylvania State University have joined forces to develop and launch an innovative, talking app - Nuru - to help African farmers recognize Fall Armyworm, a new and fast-spreading crop pest in sub-Saharan Africa, so that they can take immediate steps to destroy it and curb its spread.

Fall Armyworm first appeared in Africa in 2016, in West Africa, and then rapidly spread across all countries in sub-Saharan Africa in 2017, infecting millions of hectares of maize, and threatening the food security of more than 300 million people.

A press release issued from Rome has noted that many African farmers might have heard about Fall Armyworm, but are seeing it for the first time, and are often unable to recognize it or unsure of what they are facing.

"With the new application, they can hold the phone next to an infested plant, and Nuru can immediately confirm if Fall Armyworm has caused the damage," the release said.

Nuru is an app that uses cuttingedge technologies involving machine learning and artificial intelligence. It runs inside a standard Android phone and can work also offline.

"The new tool will help farmers recognize their new enemy and take immediate measures to stop it. It complements FAO's recently launched Fall Armyworm Monitoring and Early Warning System (FAMEWS) mobile app, which builds knowledge on how and where the pest spreads, and what makes it less damaging," FAO Senior Agricultural Officer who leads FAO's digital response to Fall

Armyworm and other pests, Keith Cressman said.

"An important feature on the new tool is that it can work offline so farmers can use it whenever they want it. Nuru is like an extension officer who is always there for the farmers, in their fields," a professor of Entomology and Biology at Pennsylvania State University, which led the development of the app with FAO, David Hughes said.

Soon, in addition to English, Nuru will be able to speak to farmers in their own language, walking them through the process of checking their crops for Fall Armyworm, reporting back on infestation levels, and giving them advice on how to fight the pest. Nuru will speak Swahili, French and Twi and will be learning new languages all the time.

Nuru is currently inside the PlantVillage app, which is a free app built at Pennsylvania State University with FAO, CGIAR and other public institutions, and will soon be linked into FAO's FAMEWS app.

Once the famers get online, all the data will flow from FAMEWS, where the data is validated by national Fall Armyworm focal points, into a global web-based platform.

The platform analyses data from across Africa to give a real-time situation overview with maps of Fall Armyworm infestations and the measures that were most effective in reducing its impact.

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News update



#### **Finalists known**

The Fall Armyworm Tech Co-Creation Event took place in Uganda from June 26<sup>th</sup> -29<sup>th</sup> 2018 and was packed with innovators, experts, and stakeholders. The Fall Armyworm Tech Prize seeks digital tools and approaches that provide timely, context-specific information enabling smallholder farmers and those who support them to identify, treat, and track incidence of fall armyworm in Africa.

The competition attracted 228 entries, with over 80% entries from Africa.

The finalists' solution titles are as follows: A Mobile Layaway Solution to Combating Fall Armyworm (USA), "Boa me" (Ghana), Africa Rising (RSA), AfriFARM (USA), AGRI-POLL: A smart survey system (Uganda), AL-based

Digital Monitoring System (Israel), FAW Identification Autonomous Using Deep Learning (USA), CdPAS Mobile: Crop disease prediction and advisory services on any mobile phone (Ghana), CornBot: Farmers Everyday Virtual Assistant for Sustainable Maize Production (Nigeria), Digicult (Taiwan), EzyAgric (Uganda), Fall Armyworm Identification, Verification Mitigation through Digital Information (Kenya), FarmSmart Pest and Disease (PAD) app (Nigeria), LEA: Pests? Problem solved! (Uganda), Locsmman Pro/OFES (Ghana), Shape Up Against Armyworm (Kenya), UDefeatFAW (USA), WeFAW Alert and Expert Advisory Model (WeFAW) (USA), and Zaois-Tech (Kenya).