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FALL ARMYWORM THREATENS FOOD SECURITY AND LIVELIHOODS ACROSS AFRICA

Fall Armyworm (*Spodoptera frugiperda*), FAW, is a transboundary insect pest that feeds on more than 80 crop plants, particularly maize when available, and it is able to move 100 km per night. It can cause significant yield losses if not well managed and has a high potential to affect food security. FAW is native to tropical and subtropical regions of the Americas but has been recently introduced into Africa where it has rapidly spread.

In early 2016, FAW was first confirmed in Central and Western Africa. By the end of 2017, it was found in almost all countries of Sub-Saharan Africa and could spread further.

By early 2018, tens of millions of hectares of maize in Africa were found infested with FAW. The majority of maize farmers in Africa are smallholders, typically growing 1-2 ha of maize. These farmers have limited access to pest information, inputs,

and adequate production prices.

Farmers need significant support to sustainably manage FAW in their cropping systems through Integrated Pest Management (IPM), which is the most appropriate approach to manage FAW.

To support farmers and countries in responding to the FAW threat, FAO has taken a lead role in providing technical expertise, policy advice, training, coordination, and communication on FAW management.

MAIZE FARMERS STRUGGLING AGAINST FAW

Maize is the most widely grown staple food crop in Sub-Saharan Africa. More than 300 million people in Africa depend on maize as a source of food and livelihood.

Left uncontrolled, FAW can reduce maize yields by 10-20 percent. This reduction, coupled with other factors, including drought and social instability, can push smallholder families over the tipping point into food insecurity.

The concern over a new type of damage can sometimes induce panic among both farmers and government officials, leading to an overuse of synthetic chemical insecticides that can be highly hazardous to human health.

In Mesoamerica, smallholder farmers have been sustainably managing FAW, in maize for centuries. Gathering and analysing

experiences and best practices from the Americas, along with local experimentation and testing will help design a sustainable FAW management program for smallholders in Africa based on IPM.

FAO'S ACTIONS TO SUPPORT COUNTRIES AGAINST FAW IN AFRICA

FAO took immediate action to help member countries, farmer's organizations, and individual farmers manage FAW. This was accomplished in partnership with other organizations, through FAO's mandate of coordination, convening partners, organizing technical consultation meetings and technical working groups, and provision of technical and policy advice.

KEY FACTS

FALL ARMYWORM

FARMERS AND GOVERNMENTS SHOULD NOT PANIC. THERE ARE PROVEN, EFFECTIVE MEANS OF MANAGING FAW

A MASSIVE ROLL-OUT OF A LEARNING, TRAINING, AND COMMUNICATIONS PROGRAMME IS NECESSARY THROUGH VILLAGE MEETINGS, FARMER FIELD SCHOOLS, NATIONAL EXTENSION PROGRAMMES, AND ADVISORY SERVICES

SUSTAINABLE MANAGEMENT METHODS OF FAW INCLUDE UTILIZING PLANT DIVERSITY, ATTRACTING AND MAINTAINING NATURAL ENEMIES, AND MECHANICAL CONTROL

TARGETED USE OF LOCALLY PRODUCED BOTANICAL INSECTICIDES AND PATHOGENS COLLECTED FROM THE FIELDS ARE OTHER VIABLE OPTIONS TO SUSTAINABLY MANGE FAW

FAO/FAW

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WEBSITE

<http://www.fao.org/food-chain-crisis/how-we-work/plant-protection/fallarmyworm/en/>

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Immediately, FAO implemented its Technical Cooperation Programme projects on FAW management, which are operational in at least 29 countries.

In 2017, FAO organized several meetings in Africa to provide updates on the situation, share and update knowledge on sustainable FAW management for smallholder family members, and support emergency preparedness and rapid pest management response.

South-South Cooperation and knowledge exchanges between Africa and the Americas were facilitated to share and update the state of knowledge on sustainable FAW management for smallholder family farmers. This included information on biological control, monitoring, economic thresholds, use of bio-insecticides, and the impact of plant biodiversity on FAW ecology.

FAO formulated a Framework for Partnership for sustainable management of FAW in Africa, endorsed by the African Union and intended as a guide for the development of projects and programmes by the various stakeholders. It also developed a Programme for Action for Sustainable Management of FAW in Africa that focuses on pesticide use, monitoring and early warning, farmer education, communications, risk mapping and impact assessment.

Field tools developed by FAO, such as a mobile phone app, a centralized database, and a web-based early warning platform, help to monitor FAW throughout Africa. These are supplemented by pheromone traps with ongoing field evaluations concerning appropriate lures. Innovative technologies such as remote sensing, drones, Google Earth Engine, and artificial learning are utilized to improve

FAW monitoring and diagnose damage.

FAO facilitated the preparation of a Farmer Field School (FFS) guide on IPM for FAW covering FAW identification, biology and ecology, plant diversity, soil health management, early scouting, mechanical controls, botanical pesticides, biopesticides and biological control agents, pesticide risk reduction, community monitoring, and other topics. Farmers and communities will carry out adaptive research to refine sustainable pest management recommendations.

Special attention is given to technical and policy advice regarding the use of pesticides. Highly Hazardous Pesticides are avoided and bio-pesticides are tested.

FAO'S KEY NEXT STEPS FOR FAW

One of FAO's key next steps for FAW management in Africa is to support the design and implementation of a sustainable and ecological pest management programme for smallholder farmers in Africa, after looking at the experiences of the farmers and researchers from the Americas.

Promising management practices will be tried and adapted in the field using FFS that involve farmers and farmer organizations across Africa, in collaboration with research and advisory services.

Next steps include up-scaling activities across the continent, to help farmers better respond to the threat.

Significant resources will be mobilized to enable the training of tens of thousands of farmers in sustainable FAW management, the implementation and use of monitoring and early warning systems, the reduction of pesticide use risk, and the execution of careful risk mapping and impact assessments.

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