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Working together for Zero Hunger through digital innovation

FAMEWS – FALL ARMYWORM MONITORING AND EARLY WARNING SYSTEM

Through this app and its platform, data on Fall Armyworm can be collected at the farm level and collated for sharing at local, national and global levels to manage the pest, identify priority areas, and foster early warning mechanisms for all stakeholders.

ISSUE

Fall Armyworm (FAW) (Spodoptera frugiperda), is an insect pest of more than 80 plant species, causing damage to economically important cultivated cereals such as maize, rice, sorghum, as well as to vegetable crops and cotton. Its recent emergence and rapid spread in Africa is a serious threat to the food and income security of millions of smallholder farmers. FAW threatens over 40 African countries and is expected to become endemic in many of them.

Addressing this issue requires tracking and monitoring of the spread of FAW to ensure adequate crop protection. Based on its experience with early warning systems for transboundary pests, FAO therefore took the lead in developing an application for this purpose.

ACTION

The FAMEWS mobile app plays a critical role in FAW management as it enables the collection, recording, and transmission of standardized and geo-referenced field data by farmers either as individuals or organized as communities such as the FAO-supported Farmer Field Schools and other community-based programmes.

- **Africa-wide tool in 10 languages.**

- **Requires Android v5 or higher smartphone.**

- **Used by farmers and extension workers every time they check a field or pheromone trap for FAW.**

- **National Focal Points validate field data.**

- **Field data feeds into centralized platform for real-time mapping of current situation.**

The tool is simple, straightforward, intuitive, and easy to maintain and update. Field data are collected in order to (i) determine FAW presence at the local, district, national, and regional levels, (ii) take immediate action, (iii) monitor FAW movements and spread, (iv) identify gaps in monitoring, (v) identify potentially threatened areas or areas at risk, and (vi) provide forecasts and early warning.

The app is useful on two fronts: for farmers and agricultural workers in the direct management of their crops to prevent further infestations and reduce damage; and for all actors involved in managing FAW in Africa, by

providing vital analysis on risks, spread, and management.

IMPACT

Initially implemented in Madagascar and Zambia, the app is now being rolled out across all affected countries in sub-Saharan Africa through the Farmer Field Schools national programmes

and other forums involved in the fight against FAW. A critical element of the early success of FAMEWS has been the training provided to small farmers and local communities. This involves not only basic usage training, but also broader education for the community on what FAW is and how it can be contained through prevention or control actions.

MORE INFORMATION

FAMEWS mobile app (direct download to Android v5 or higher): tiny.cc/FAMEWS_Android

FAMEWS training kit (docs, presentations, video): tiny.cc/FAMEWS_kit

FAMEWS global platform (maps, data): tiny.cc/FAMEWS_maps

FAO (FAW info source): http://www.fao.org/food-chain-crisis/how-we-work/plant-protection/fall-armyworm/en/

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