Food and Agriculture Organization of the United Nations

Fall Armyworm Control in Action Newsletter

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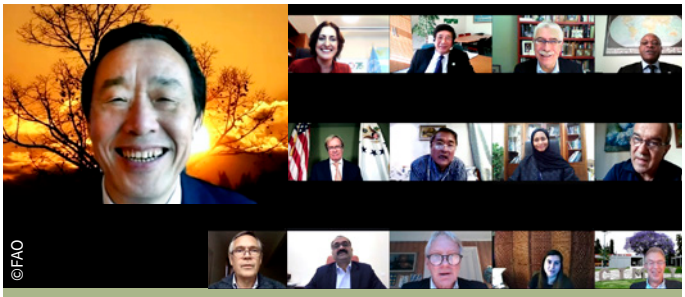
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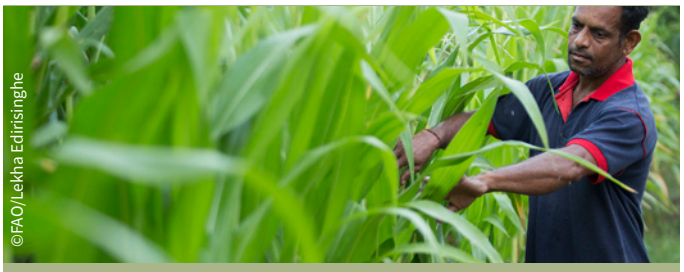
Highlights

The third meeting of the **Steering Committee for the Global Action (GA) for Fall Armyworm (FAW) Control** was held virtually on 21 December 2020, and chaired by FAO Deputy Director-General (DDG) Beth Bechdol. In his opening remarks, FAO Director-General Dr QU Dongyu expressed his gratitude to all SC members for their active engagement and positive contribution, and called upon all SC members to work together for success in implementing the GA. Two important issues were endorsed at the meeting: establishment of a Resource Mobilization Working Group (RMWG) to be led by FAO Deputy Director-General (DDG) Beth Bechdol, and application of general guidelines for developing and implementing Regional integrated pest management (IPM) packages in all eight demonstration countries (Burkina Faso, Cameroon, China, Egypt, India, Kenya, Malawi and the Philippines).

The first **Regional Coordination meeting for implementation of the GA on FAW control action** was conducted virtually on 19 November 2020, and attended by FAO Representatives and Plant Protection Officers of Africa, Asia-Pacific, and Near East and North Africa (NENA) regions. In her opening remarks, FAO Deputy Director-General Beth Bechdol underlined the importance of regional steering groups in supporting the implementation of the GA in demonstration countries in their respective regions. The Regional Representative Abebe Haile Gabriel from Africa, the Regional Representative Jong Jin-Kim from Asia-Pacific and the Deputy Regional Representative Serge Nakouzi from NENA expressed their support for implementation of the GA in their respective regions.

The first **National Coordination meeting for implementation of the GA on FAW control action** was held virtually on 22 December 2020, and attended by representatives from all eight demonstration countries. All demonstration countries updated their information on FAW status and control, and reported their plans for implementation of the GA at country and farm level. In his concluding remarks, NSP Director Dr Jingyuan Xia urged all demonstration countries to complete country agreements with two-year work plans for the 2021-2022 period, undertake IPM implementation in the fields, and coordinate with the FAO FAW Secretariat and the technical focal points for each demonstration country.

An International Plant Protection Convention (IPPC) FAW webinar launched the FAO/IPPC FAW Technical Working Group (TWG) on Quarantine and Phytosanitary Measures and the IPPC/ Regional Plant Protection Organizations (RPPO) Task Force for implementation of the GA for prevention on 9 November 2020. Some 287 participants from 76 countries took part. The webinar highlighted the key role of prevention in the global fight against FAW, showcasing mechanisms and strategies put in place by FAO and the IPPC Secretariat to implement the GA in areas at the most risk of contamination. A recording of the webinar can be found here.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Implementation

The **eight demonstration countries** took steps in validating and demonstrating, on a large scale, comprehensive and contextualized IPM packages. Some countries, such as Malawi, have been fighting FAW since it arrived in 2016 and have already established national FAW steering committees. China's Ministry of Agriculture and Rural Affairs has established a national expert group for FAW prevention and control. Related measures, including training, hotspot applications, biocontrol promotion, and direct management interventions, have been taken on 1.6 million ha. Efforts for capacity building are underway in the **53 pilot countries**. Countries such as Rwanda and Sri Lanka, are fighting FAW through programmes such as Farmer Field Schools, which are training trainers and farmers on identification and sustainable management of FAW. **Twenty-one countries** have been identified for delivery of fall armyworm prevention and preparedness activities. **Prevention and Preparedness Guidelines** are being finalized by the FAO-International Plant Protection Convention (IPPC) Technical Working Group on Quarantine and Phytosanitary Measures and available on the IPPC Online Comment System (OCS), so the target countries can provide their input.

The Regional FAW Coordinators have been announced as: G.C. Yubak, Senior Agriculture Officer (FAORAP) as regional FAW coordinator for APAC region; Thaer Yaseen, Agriculture Office (FAORNE) as regional coordinator for NENA region; Jean Bahama, Plant Production and Protection Officer (FAORAF) as regional coordinator for Africa region. The three Regional Steering Group Leaders have been announced as: Abebe Haile Gabriel (ADG Africa) as leader for Africa region; Jong Jin-Kim (ADG APAC) as leader for APAC region; Serge Nakouzi (Deputy Regional Representative, FAORNE) as leader for NENA region.

Communications and Partnerships

The FAO **FAW Secretariat** in 2020 held five **regional and sub-regional consultations** with a total of 157 participants, including FAW focal points from 65 countries in the Africa, Asia Pacific and the Near East regions. The aim was to establish direct communications between the FAW Secretariat and national focal points from the regions; mainstream information on the GA strategy; and raise awareness concerning gaps and challenges faced by member countries.

Seven **FAW Regional meetings** were organized in the NENA region in 2020. The meetings serve as a platform for coordination and information sharing among National Focal Points (NFPs) in the region. The seventh FAW Regional meeting in NENA was held alongside a two-day regional virtual training workshop, concerning mass production of biological control agents (ie natural enemies) for FAW. The training workshop, provided by the International Centre of Insect Physiology and Ecology (*icipe*) Kenya, in collaboration with Near East Plant Protection Organization (NEPPO), drew more than 200 participants.

IPPC website **has been updated** to feature resources and information relevant to FAW prevention and preparedness.

The GA has been financially supported by Norway through the Norwegian Agency for Development Cooperation (NORAD) and the European Union. FAO-China South–South Cooperation and France have also pledged to support the Global Action financially.

New Developments

Development of three CIMMYT-derived fall armyworm-tolerant elite maize hybrids for eastern and southern Africa were announced by CIMMYT's Director General Martin Kropff during the 21 December 2020 SC meeting. Next steps will see CIMMYT and partners nominate these FAW-tolerant hybrids for varietal release in target countries in sub-Saharan Africa. After national performance trials and varietal release and registration, the hybrids will be sub-licensed to seed company partners on a non-exclusive, royalty-free basis for accelerated seed scaling and deployment in order to benefit farming communities, says CIMMYT.

Yang *et al.* 2021. Fall armyworm invasion heghtens pesticide expenditure among Chinese smallholder farmers. *Journal of Environmental Management, Volume 282*. New research from the Chinese Academy of Agricultural Sciences (CAAS) suggests **the recent FAW invasion has heightened pesticide expenditure, lowered farm profits and increased poverty vulnerability among smallholders in China**. The research suggests a positive trend after farmers switched from broad spectrum pesticides against FAW in 2018 to newer, more selective pesticides in 2020. Ultimately, sustainable pest management programmes are urgently needed for smallholder maize systems, conclude the authors.

Navik *et al.* 2020. Damage, distribution and natural enemies of invasive fall armyworm Spodoptera frugiperda (J. E. smith) under rainfed maize in Karnataka, India. *Crop Protection*. The authors assessed the occurrence, incidence and damage severity of FAW in 126 maize fields in 10 districts of India's Karnataka state, and reported the damage incidence of *S. frugiperda* was 22.13–46.83% with damage severity 0 to 4.9 on the 0 to 9 scale. **In the area of study, *S. frugiperda* had dominated the native stem borers causing significant damage to maize**.

Field stories

Yemen. Seventy percent of Yemeni live in rural areas, depending on agriculture to survive. One such farmer, Haliyah Ali Muthana Saleh, found a troubling new pest – FAW – in her maize and sorghum crops two years ago. "It spread quickly in my field and I had no idea what it was," she recalls. Haliyah tried chemical pesticides and two traditional control methods without success. Meanwhile, FAO was launching a campaign in Yemen to control FAW and Haliyah's experiences raised awareness about the pest. Since then, FAO's support has helped Yemen authorities to build capacity to identify, monitor and manage FAW. FAO has also provided monitoring equipment (including pheromone traps) and smartphones, and awareness-raising campaigns to advise farmers. Says Haliyah: "Thanks to the support provided by FAO, I have no worries any more about my family food security because my crops are protected."

Ethiopia. The use of locally available botanicals in FAW control has become popular in the country, resulting in significant reductions in maize crop damage. Working with the Ethiopian Institute of Agricultural Research (EIAR), safer alternatives to pesticides were evaluated in 2019 and are now being applied. Those include locally available botanicals, locally isolated entomopathogenic fungi, commercially available biopesticides and use of molasses to attract adult moths for monitoring and killing. Among locally available botanicals tested, neem was found to provide best control of FAW. As well, training through Farmer Field Schools (FFS) improved skills in FAW monitoring, important for successful pest management.

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http://www.fao.org/fall-armyworm/global-action/en/
https://www.ippc.int/en/the-global-action-for-fall-armyworm-control/
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