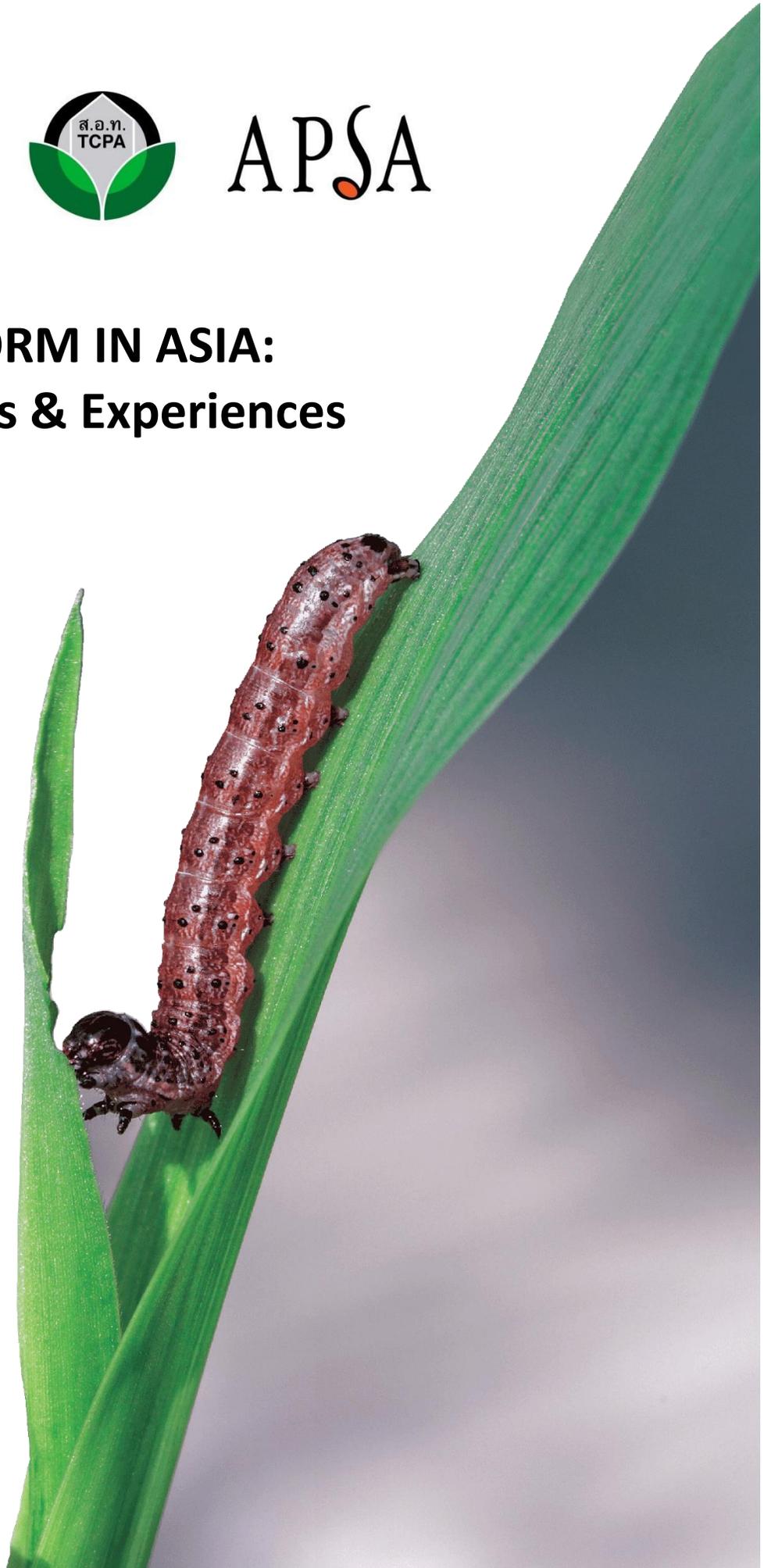




APSA

FALL ARMYWORM IN ASIA: Sharing Lessons & Experiences

4 February 2021



AGENDA

TIME	PROGRAM
9:00 am – 9:10 am	<p>Opening Session / Introduction to Guests Mr. Pachok Pongpanich - Facilitator</p> <p>Welcome Remarks Dr. Chairerg Sagwansupyakorn, THASTA President</p>
9:10 am – 10:35 am	COUNTRY EXPERIENCES: SHARING LESSONS AND ONGOING ISSUES
	<p>Fall armyworm in the Philippines Ms. Wilma Cuaterno Head of Crop Pest Management Division Department of Agriculture - Philippines</p>
	<p>Fall armyworm in Myanmar Ms. Ni Ni Htain Plant Protection Division (PPD) Department of Agriculture - Myanmar</p>
	<p>Fall armyworm in Thailand Dr. Pruetthichat Punyawattoe Entomologist Department of Agriculture - Thailand</p>
	<p>Project SAFFAL - Community-based Participatory Approach to Fall armyworm Management in India Dr. Bhagirath Choudhary Director of South Asia Biotechnology Centre, India</p>
10:35 am – 11:35 am	REGIONAL DISCUSSIONS ON FALL ARMYWORMS
	<p>Sustainable Management of Fall armyworm in Asia: Need for Implementing a Well-Coordinated R&D Strategy Dr. B.M. Prasanna Director of CIMMYT's Global Maize Program The International Maize & Wheat Improvement Center (CIMMYT)</p>
	<p>ASEAN Action Plan on Fall armyworm Dr. Alison Watson Project Manager, Fall armyworm Action Plan GrowAsia</p>
	<p>The Private Sector's Issues and Efforts on Fall armyworm Mr. Somsak Samanwong President Thai Crop Protection Association</p>
11:35 am – 11:50 am	Q&A Discussion on Current Issues and Solutions
12:00 pm	Closing Remarks

SPEAKER BIO & ABSTRACT

COUNTRY EXPERIENCES: SHARING LESSONS AND ONGOING ISSUES



Ms. Wilma Cuaterno

Head - Crop Pest Management Division, DOA – Philippines

Profile

Ms. Wilma Cuaterno is the Chief of Crop Pest Management Division of the Philippine Department of Agriculture's Bureau of Plant Industry. Ms. Cuaterno's 41 years of service agriculture have given her the expertise in various fields, particularly in integrated pest management, crop protection, biological control, pest surveillance, rodent management, wildlife management and farmer field school system.

Abstract

FAW Situation in the Philippines

The Fall Armyworm (FAW), *Spodoptera frugiperda* was first observed in the country on June 2019. It was observed in a cornfield of about 100 hectares in the northern part of the country, municipality of Piat province of Cagayan. The field is planted to Genetically Modified corn variety and conventional hybrid. After four months of monitoring the insect pest, all 16 Regions of the country had reported its presence. But it does not mean that every area in the country has FAW. In fact, not all Barangay which is the smallest political division of the Philippines, is infested by the pest. Based on December 2020 data, out of 82 total provinces of the Philippines, there are 69 that were infested. The national infestation average where we used the protocol provided by FAO is 26.35% Infestation varies from .000033% to 100% per hectare. Several factors contribute to the variation. Philippine strategy on the management of FAW is based on Integrated Pest Management (IPM). We are following the IPM pyramid and the IPM PAMS. P stands for Prevention, A for Avoidance, M for Monitoring and S for Suppressions.



Ms. Ni Ni Htain

Plant Protection Division (PPD), DOA – Myanmar

Profile

Ms. Ni Ni Htain is the Group Leader in the Biological Control Unit of the Plant Protection Division of Myanmar's Department of Agriculture. Last year, she was involved with the FAO Project on emergency response to enhance technical assistance for early warning, monitoring and management of Fall Armyworm in Myanmar. Ms. Ni Ni also participated in a CABI project on implementing a national network of plant clinic and strengthening the national plant health system in the country. Her work in Myanmar DOA focuses on compiling information about pest management and various trainings for extension staff concerning plant protection.

Abstract

Managing the Spread of Fall Armyworms in Myanmar

The fall armyworm (FAW), or *Spodoptera frugiperda*, has become a major pest in maize crops in Myanmar since it was first reported in Dec 2018. From then on, it has rapidly spread throughout all maize growing areas in the country. This new destructive insect pest has become one of the major problems for agricultural crop production under warm and humid conditions, especially for corn crops. This is due to its ability to breed rapidly, migrate, and feed on a wide range of host plants. This presentation will show how Myanmar has been implementing different management options of this pest, including the setting up of enhanced awareness program, monitoring, and dissemination of early warning information to farmers using pheromones for early detection. Integrated pest management (cultural, biological and chemical) is commonly used for controlling FAW infestations.

Dr. Pruettichat Punyawattoe, Entomologist Department of Agriculture – Thailand



Profile

Dr. Pruettichaht Punyawattoe is the Director of Entomology and Zoology in the Plant Protection Research and Development Office of the Ministry of Agriculture and Cooperatives of Thailand. He is currently involved in the research, evaluation and training on the application of both chemical and biological pesticides. His core expertise includes: long-standing knowledge base on selection and use of sprayers appropriate for the farmers; rational pesticide use (RPU) in integrated crop and pest management systems; design and development of spraying equipment and ancillary equipment (e.g. boom sprayer); standards setting for application equipment and sprayer; nozzle evaluation: droplet spectrum analysis; collaboration with the BCPC nozzle classification scheme; participatory training of farmers and trainers.

Abstract

Successes and Challenges on FAW Management in Thailand

With Thailand as a major player in the global corn production industry, the damages incurred, particularly during the first stage of spread of FAW in the country, cannot be underestimated. The country is seeing some improvements in fighting this new pest since the start of the onslaught of FAW, as collaborations between the Department of Agriculture and other sectors of the industry have been established. Developments in research are also showing a lot of promise, particularly on diagnostics and genetic diversity, chemical control and application technology, and biological control. Aside from giving more details on the current situation of Thailand in battling Fall Armyworms, this presentation will also provide the current activities of the government and its future plans to address the damaging effects of the spread of FAW in one of Thailand's major crops.



Dr. Bhagirath Choudhary
Director of South Asia Biotechnology Centre

Profile

Dr. Bhagirath Choudhary serves as the Founder/Director of the South Asia Biotechnology Centre (SABC), New Delhi and a board member of the Agricultural and Processed Foods Export Development Authority (APEDA) of the Ministry of Commerce and Industry, Government of India. In last two years, he had played a key role in management of fall armyworm in India through a nation-wide project “Safeguarding Agriculture and Famers against Fall Armyworm (Project SAFFAL), which is being implemented in collaboration with key stakeholders in maize value chain in India. Dr Choudhary has been actively working at national level to create an enabling ecosystem for technological applications in agriculture and facilitate the transfer of Bio-

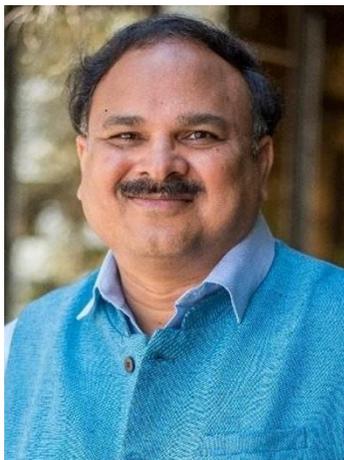
innovations from the lab to the land for the growth prospects for the bio-economy of India.

Abstract

Project SAFFAL - Community-based Participatory Approach to FAW Management in India

Faced with the onslaught of an invasive pest, the fall armyworm, or *Spodoptera frugiperda*, was first detected on maize crop in the Indian state of Karnataka in May 2018. It threatened the major rainy season maize crop in the following months and managing it required more of policy perspective. An outreach program called SAFFAL (Safeguarding Agriculture and Farmers against Fall Armyworm) helped to disseminate knowledge on pest diagnostics, biology and management tactics through information and communication technology to the farmers, agri-extension system and with pest management policy support from the Government. This presentation describes the community based participatory approach to FAW Management in India.

REGIONAL DISCUSSIONS ON FALL ARMYWORMS



Dr. B.M. Prasanna
Director of Global Maize Program, International Maize and Wheat Improvement Center (CIMMYT)

Profile

Prasanna is the Director of Global Maize Program at the International Maize and Wheat Improvement Center (CIMMYT) and also directs the CGIAR Research Program MAIZE. Prasanna has been leading CIMMYT’s efforts, together with international and national partners, in tackling the challenges of Fall Armyworm in both Africa and Asia. He provides technical oversight for an array of multi-institutional projects on development and deployment of elite, stress resilient and nutritionally enriched maize varieties in the tropics of sub-Saharan Africa, Asia and Latin America, besides application of novel tools and

technologies for enhancing genetic gains and breeding efficiency.

Abstract

Sustainable Management of Fall Armyworm in Asia: Need for Implementing a Well-Coordinated R&D Strategy

The Fall Armyworm (FAW; *Spodoptera frugiperda*) has emerged as a serious threat to the maize crops in both Africa and Asia. In Asia, the pest was first reported in India in mid-2018, and since then in several countries in the Asia-Pacific. The pest clearly poses a serious threat to millions of maize-based farming households, particularly when layered upon other drivers of food insecurity. Sustainable control of FAW requires an integrated pest management (IPM) strategy, including effective integration of host plant resistance, environmentally safer pesticides, biological control, agro-ecological management, and good agronomic practices. Multi-disciplinary and multi-institutional synergies are the need of the hour to develop, test, and urgently deploy science- and evidence-based IPM packages relevant for Asia's diverse agro-ecologies, socio-economic contexts, and maize value chains.

On the host plant resistance front, CIMMYT has been implementing an intensive breeding program for identification of diverse sources of native genetic resistance to FAW. More than 6000 maize genotypes, including inbred lines and pre-commercial hybrids from CIMMYT, have been screened so far under FAW artificial infestation in screenhouses at Kiboko, Kenya, leading to identification and validation of promising inbred lines and pre-commercial hybrids. A set of first-generation FAW-tolerant CIMMYT maize hybrids have been announced for Africa by the end of 2020. CIMMYT, together with partners, will intensify breeding for FAW resistance in Asia using the promising inbred lines and hybrids developed in Africa.

Among the FAW-endemic countries in Asia, Philippines and Vietnam are so far the only countries where Bt maize is under commercial cultivation. In both countries, Bt maize is reported to offer significant protection against the pest. Testing and deployment of Bt maize against FAW in other countries in the Asia-Pacific would require appropriate support from policy makers and regulatory authorities. In those countries where Bt maize has been already deployed, insect resistance management and proper stewardship would be critical for the transgenic technology to offer sustainable protection against the pest. Pyramiding transgenes with different modes of action (e.g., Cry + Vip genes) could be more effective and durable compared to single-gene deployment.

The core pillars of FAW R&D strategy should be: a) evidence-based decision making at the national, regional and continental levels; b) building sustainable local capacities to identify, develop, validate, and deploy appropriate technologies, practices, and approaches; c) private sector engagement to increase efficiency, achieve scale, spur innovation, and support sustainable dissemination systems for IPM-based FAW control; and d) strategic coordination to leverage the capacities of partners across Asia-Pacific to facilitate rapid and efficient knowledge and technology development, demonstration and transfer. To maximize impact and efficiency, there is a strong need to identify short- and medium-term, high-priority actions to mitigate and manage the FAW threat, while rapidly mainstreaming the best practices and technologies at the national level.



Dr. Alison Watson
Project Manager, Fall armyworm Action Plan – GrowAsia

Profile

In 2019, ASEAN supported the development of a regionally coordinated response and requested that Grow Asia develop a regional FAW strategy. The ASEAN Action Plan on Fall Armyworm Control was subsequently approved as a regional action plan in August 2020. This comprehensive plan sets out the goals, objectives, and work programs to manage the pest over the next five years. Grow Asia is the secretariat of the Action Plan. Alison has a background in international partnerships and policy in the agricultural sector.

Abstract

The ASEAN Action Plan on Fall Armyworm

The ASEAN Action Plan on FAW sets out a regionally agreed multi-stakeholder model for supporting ASEAN to respond, monitor, and manage FAW; to improve integrated pest management (IPM) and sustainable agricultural practices; and, to build more resilient food systems. The ASEAN Plan of Action for Fall Army Worm Control 2020-2025 (PoA-FAW) was approved by the 42nd AMAF on 21 October 2020 as an ASEAN regional strategy. The overall goals of the PoA-FAW are to reduce FAW-induced crop losses and associated livelihood impacts especially amongst smallholder farmers; to promote sustainable and cost-effective integrated pest management (IPM) practices across the ASEAN region whilst advancing improved FAW control measures; and to drive coordinated and effective multi-stakeholder communication to combat the threat of FAW to food security and farmer livelihoods.



Mr. Somsak Samanwong
President, Thai Crop Protection Association (TCPA)

Profile

Mr. Somsak Samanwong is the Regional Technical Educator for Asia Pacific at Corteva Agriscience. He is also the current President of Thai Crop Protection Association (TCPA) for the term of Feb 2020-2022. TCPA is non-profit organization which was established in 1983, the main mission is to coordinate among the members to sustain the harmony and exchange the knowledges, ideas to one another in academic areas and trading information, together with research on pesticidal chemicals (pesticides) “safe-use” for agriculture and public health. Prior to joining Corteva, Somsak held multiple roles for Dow AgroSciences Thailand in the Crop Protection R&D function.

Abstract

The Private Sector’s Issues & Efforts on Fall Armyworm

The private sector has been greatly affected by the spread of fall armyworms since its onset in the Asian region. Companies involved in the production and trade of corn, including the ones that are in the crop protection segment, have initiated various meetings and consultations among each other and with other sectors to come up with solutions to mitigate this problem. This presentation touches on the issues and problems faced by private businesses in the corn industry in dealing with FAW. It also presents the efforts made by the private sector to disseminate more information about FAW; promote collaborations; and recommends short- and long-term solutions to prevent, or at least lessen, the damages that it brings to corn crops.