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Report Highlights:

Fall armyworm (FAW) was detected in Vietnam in 2019 and infected over 35,000 hectares of corn during the 2019 corn planting seasons. The Ministry of Agriculture and Rural Development (MARD), research institutes, and industry stakeholders put in place a series of recommendations and technical seminars to combat FAW. In 2020, Vietnam has seen a reduction in heavily affected areas as well as an increase in planting of insect-resistant biotech corn varieties, although the FAW threat remains.

Status Update

Fall armyworm (FAW), *Spodoptera frugiperda*, was first detected in Vietnam in early 2019, then quickly spread out across the country damaging corn in 40 different provinces. Please refer to GAIN report VM2019-0017 for the previous update. FAW can affect more than 80 different plants, however in Vietnam so far it has been particularly devasting to corn. MARD Plant Protection Department (PPD), in collaboration with their provincial sub-departments, research institutes, and national and international stakeholders introduced a series of technical guides, on-site training and seminars for farmers and local agriculture extension officers to prevent and combat FAW.

According to Vietnam General Statistics Office, as of May 15, 2020, the total planted corn area for October 2019-May 2020, was 435 thousand hectares, down three percent compared to the same period last year. Table 1, consolidated from PPD weekly pest status updates, shows corn planted and FAW infected areas during the 2019/2020 winter and spring corn seasons. A downward trend in FAW infected areas happened during the cooler period from November to March. Areas with over eight larvae per square meter are considered to be heavily infected. Heavily infected areas went from 664 hectares in November to only 9 hectares in March. However, heavily infected corn area was back up to 196 hectares by late May 2020. Although in May 2019, there were 547 hectares of heavily infected areas and 8,915 hectares of infected areas. Plant protection and agricultural extension agencies and farmers in Vietnam have taken action to reduce the effects and limit the spread of FAW. However, industry sources are projecting that FAW will continue to spread and damage the next major corn planting season in 2020.

Table 1: Vietnam corn planted and FAW infected area from October 2019 to May 2020

	2019			**2020**				
	Oct 10	*Nov 29*	*Dec 29*	*Jan 28*	*Feb 21*	*Mar 28*	*April 30*	*May 21*
Corn planted area (hectares)	255,943	227,860	315,161	184,758	192,386	222,330	279,489	342,521
Total FAW infected area (hectares)	5,813	1,602	748	1,040	1,778	1,007	2,585	1,907
Heavily infected areas (hectares)	664	64	12	38	50	9	21	196

Sources: MARD's Plant Protection Department Weekly Pests Status Update

Responses to FAW

Central Government

In addition to the guides and directives produced in 2019, MARD issued Decision 218/QD-BNN-BVT on January 16, 2020, to provide the following prevention and control measures for FAW.

- Recommended use of approved insect-resistant hybrids to minimize damage and reduce insecticide costs. Seven approved corn varieties are, NK7328 Bt/GT; NK4300 Bt/GT; NK66 Bt/GT; NK 6101 Bt/GT; 8639S; 6919S, and 99558S.
- Use of biological measures such as pheromone traps, baits, and chemical measures such as insecticides.
- Requirement to immediately report to ag extension officers any observations of FAW on other crops, in addition to the already existing requirements to report discoveries of FAW in corn.

Local Government

Most provinces in Vietnam, particularly those that experienced damages from FAW in 2019, have followed MARD guidance for prevention and control in corn planted area. Use of select suitable corn varieties, regular farm checks, surveillance during the early corn development stages, and chemical and biological control measures have been directed by local agricultural agencies and followed by corn farmers. These measures have helped in the mitigation of FAW spread, while also lowering the production costs. An industry source reported that the active preventions and control measures in the 2019/2020 corn seasons led to lower FAW infection than in the 2018/2019 season.

Joint Efforts to Combat FAW

There is an ongoing discussion among different national and international stakeholders to prepare an ASEAN Action Plan on fall armyworm Control to, 1) scale-up proven effective integrated pest management (IPM) practices across the ASEAN region whilst advancing new and improved control measures over time; 2) reduce crop yield losses and broader livelihood impacts caused by FAW, especially amongst smallholders farmers; and 3) coordinate effective multi-stakeholder communication at national, regional, and global levels to combat FAW.

Use of Biotech Corn Varieties

According to local sources, the biotech corn variety used in the spring season was beneficial to corn farmers in Nghi Xuan, Ha Tinh province[1]. The variety was resistant to FAW and led to a higher yield of 5.5 to 6 tons a hectare compared to conventional varieties. Hoa Binh province also proactively followed MARD's guidance to use insect-resistant corn varieties. This helped to reduce corn damage and lower insecticide costs for farmers[2]. Industry estimates 100 thousand hectares of biotech corn planting in 2019/2020, an increase of 73 percent compared to 2018/2019.

Challenges and Impact

Technical solutions to prevent and combat FAW recommended by international organizations include cost-effective integrated pest management approaches covering insecticide-seed treatment and foliar

[1] https://www.sggp.org.vn/giong-ngo-dk-6919-s-cho-nang-suat-cao-tren-vung-dat-nghi-xuan-660427.html
[2] http://www.khuyennongvn.gov.vn/vi-VN/thien-tai-dich-hai/hoa-binh-tap-trung-phong-tru-sau-keo-mua-thu-gay-hai-tren-cay-ngo_t114c47n19992

applications, use of plant biotechnology, and proper use of chemicals. These solutions require comprehensive policy updates as well as investment on the ground in order to work over the long-term. Improved knowledge and accessibility of information for farmers in remote areas also requires multi-stakeholder engagement between farmers, the government, service providers, the private sector, and technical organizations.

Corn production in Vietnam is one of key livelihoods of rural farmers, however planted corn area has been declining steadily in last five years and yields remain flat. FAW leads to lower yields and higher production costs due to insecticide use or over-use and increased labor costs.

Attachments:

No Attachments.