SAIRLA

SUSTAINABLE AGRICULTURAL INTENSIFICATION RESEARCH AND LEARNING IN AFRICA PROGRAMME

GHANA NATIONAL LEARNING ALLIANCE

POLICY BRIEF

"Fall Armyworm: A Threat to Sustainable Agricultural Intensification in Ghana"

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INTRODUCTION

The Fall Armyworm (Spodoptera frugiperda) has been reported to be devastating crops, mainly maize in Africa since early 2016. This moth, a native of the tropical regions of the Americas and the Caribbean region has been accidentally introduced to Africa and within one-and-half years it has spread to about 27 countries on our continent and still counting. It is its larvae (caterpillar) that destroys crops.

All Ghana's 10 regions have reported the infestation. It attacks all developmental stages of plants unlike the African Armyworm. As at April 2017, the projected economic losses at the end of the year due to the pest would be about USD 164 million for maize and sorghum only if no effective intervention was made. This estimate does not include losses anticipated on over more than 100 other crops that this pest is known to attack. We also have to contend with shortfalls in seed stock of our main agricultural crops in 2018 due to anticipated damage to seed farms this year.

CURRENT ACTIONS

A national action plan to manage this pest was developed at the end of April 2017. A task force was put in place to implement the action plan to combat the pest. The country was caught without a contingency plan in readiness for an imminent attack. The first reaction to controlling the pest in 2016 and 2017 has been the use of chemicals. This brought up our unpreparedness for the pest on maize. Since farmers are not used to spraying maize, they found out that:

- Equipment at hand was not adapted for it
- No chemical was registered for the control of the fall armyworm in Ghana
- When to apply, how to apply and the number of times to apply the chemicals was not known

This situation was rife for pollution of the environment and poisoning of humans, livestock and fishes. The pest is known to build resistance quickly to pesticides in the Americas and our actions in the past year has increased the danger of contributing to the yet-to-be confirmed development of resistance to some active ingredients in the pesticides we use in our agricultural production.

KEY MESSAGES

1. Government must facilitate the preparation of a technically sound incursion response plan not only for the fall armyworm but also for other major pests that affect food security and commodity trade with other countries.

Since the country did not have or did not deploy a pre-emptive contingency plan against the FAW, a

Leaves of a maize plant damaged by the FAW caterpillar

specific incursion management plan has to be developed to contain the FAW within a threshold where the food and livelihood security of the country is not threatened. There are other pests that feed on a wide range of our crops including those earmarked for the Planting for Food and Jobs initiative like: the diamondback moth (Plutella xylostella); the false codling moth (Thaumatotibia (Cryptophlebia) leucotreta); the cotton bollworm (Helicoverpa armigera) and the tomato leaf miner (Tuta absoluta) that need to be managed effectively. If we do not do so immediately, we shall in thenear future experience drastic drop in agricultural revenue and re-investment in the sector by individuals and companies; be faced with the attendant pollution and poisoning of our environment due excessive use of pesticides; and possible social strives linked to conflicts over access to and sharing benefits from scarce productive factors of agricultural production – land, labour, capital and even entrepreneurs.

2. Government should incorporate the activities in the national FAW action plan into its agriculture and trade development plans and budgetary projections

The national action plan on the FAW developed in April at a stakeholder consultation that brought together the Ministry of Food and Agriculture, Research Institutes and Universities, NGOs, private sectors players in agriculture and the Development Partners came out with short, medium and long term interventions. These interventions were grouped under 4 strategic areas: i) Collaboration and Coordination; ii) Awareness creation on the pest; iii) Surveillance; and iv) Management and research. All these actions require resources – financial and human. Some on-going projects and programmes could re-orient their focus to include some of the suggested actions however some new ones have to be initiated. The Ministries of Food and Agriculture, Environment Science and Technology, and Local Government and Rural Development will have to coordinate these activities effectively to obtain value for money while seamlessly engaging personnel from both public and private sectors to contain this menace. Information flow from farmers to decision makers and vice versa is essential to control calamity pest.

3. ***Government should have in place a contingency plan just in case we experience a drastic drop in domestic maize and rice production as the FAW threat is not only in Ghana but in neighbouring countries too.***

The FAW infestation is in other West Africa countries too, notably: Benin; Burkina Faso; Niger; Nigeria and Togo. These are countries that trade amongst themselves in maize and other grains. In case of heavy infestations in 2017, the volume of cereal and grain legumes on the market will drop drastically. Prices will sky-rocket as demand will out-strip supply of the affected crops like maize, rice, sorghum, cowpea, groundnut and even onions that the pest has been observed to attack this year.

Fall Armyworm Eggs and Caterpillars

KEY FACTS

The Fall Armyworm (Spodoptera frugiperda) is a very devastating pest. It attacks more than a 100 crops, pasture and garden lawns in the Americas. Under the conditions of Ghana, the pest can complete a full cycle in about 30days. One moth can produce over 1000 eggs. At this rate, one fertilized moth that arrives in an area with favourable conditions can turn out to be over 1 million moths in just 3 months if not controlled. These are enough to totally destroy at least 21 hectares of maize in a season. Although we know that not all farmers report the infestation, in the first five months of 2017, over 48,000 ha of crops had been officially reported to have been affected as against 4000 ha reported in the whole of 2016.. This makes the Fall Armyworm a serious threat to agricultural intensification and food security.

Useful Link on Fall Armyworm

CABI Evidence Note on Fall Armyworm in Africa (April 2017):
http://www.cabi.org/Uploads/isc/Dfid%20Faw%20Inception%20Report04may2017final.pdf

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