CURRENT FALL ARMYWORM SITUATION

EBENEZER ABOAGYE
DEPUTY DIRECTOR

PLANT PROTECTION AND REGULATORY SERVICES DIRECTORATE

MAY 10, 2018

Presentation Outline

- **Introduction**
- **FAW situation in 2017**
- **Current Situation**
- **Ministry’s plans**
- **Possible collaboration with partners**
- **Key messages**

Introduction

- **Fall Armyworm (*Spodoptera frugiperda*), FAW, is an insect native to tropical and subtropical regions of the Americas.**
- **Short life cycle: 1-2 months (depending on weather)**
- **Rapid proliferation (>1000 eggs per female)**
- **Strong migratory capacity of moths (500 km before oviposition) more than 1000 km (with suitable wind)**
- **Its larval stage has wide host range (>80 plant species) but with preference for maize**
- **First reported in Ghana in April 2016 in the Eastern Region**

FAW situation in 2017

- **In 2017, the outbreak of the FAW in the major season was initially sporadic and at a low level of severity.**
- **As the season progressed its incidence escalated and eventually spread throughout the entire country.**
- **The fields of few farmers who failed to manage the FAW early enough were destroyed.**
- **This created anxiety in maize producing communities.**

Interventions

- **PPRSD in collaboration with relevant stakeholders developed action plan**
- **The Hon. Minister inaugurated a 16-member Task Force**
- **Awareness Campaign e.g. radio/TV talk shows, farmers fora, Jingles etc.**
- **Distribution of educational materials**
- **Capacity building for farmers, MoFA staff and other relevant stakeholders**

Management options – Cultural control

Farmers were trained to:

- **Remove volunteer crops and alternative hosts to reduce carryover of larvae.**

- **Plough and harrow infested fields to bury or expose larvae and pupae to parasitoids , predators and sun heat.**

- **Plant early in the season when pest population was low.**

- **Rotate with non-host crops (e.g. Cassava, Yam)**

Management options – Cultural control *cont'd*

- **Intercropping e.g. Maize/cassava, provides shelter and increase number of predators – ants, spiders, beetles etc.**
- **Regularly weed the farm and its surroundings.**
- **Provide adequate nutrient to support vigorous plant growth and defence against pests**
- **Hand pick and destroy egg masses and larvae**

Summary of FAW situation - 2017

- **A total of 122,297 litres and 7,628 kilos of insecticides were procured and distributed.**
- **249,054 ha of maize fields affected and sprayed.**
- **234,807 ha (94.3%) recovered**
- **14,247 ha (5.7%) destroyed**

Pest surveillance system

- Monitoring population fluctuations using pheromone traps
- 57 Pheromone traps across the country
- Data collected from all the Regions since September 2017
- Data collected weekly and analysed

Current Situation

- **FAW is resident and survived on weeds and other plants during periods without maize.**
- **Pockets of FAW infestations on maize in low land areas and irrigated sites.**
- **Currently with the exception of Upper East and Northern regions some districts in all the remaining regions have reported pockets of FAW infestations.**

FAW Infestations: Jan-10 May, 2018

REGION	Crop Affected	Farms reporting FAW (Ha)	Area infested with FAW (Ha)	Total Area Sprayed (Ha)
ASHANTI	Maize	23,639.1	19,040.0	19,040.0
BRONG AHAFO	Maize	2,465.3	1,188.1	1,188.1
CENTRAL	Maize	48.0	48.0	48.0
EASTERN	Maize	7,819.0	2,120.0	2,120.0
GREATER ACCRA	Maize	9.0	9.0	9.0
NORTHERN	Nil	0.0	0.0	0.0
UPPER EAST	Nil	0.0	0.0	0.0
UPPER WEST	Maize/Sorghum	27.0	27.0	27.0
VOLTA	Maize	337.4	334.9	334.9
WESTERN	Maize/Rice	986.0	986.0	986.0
TOTALS		35,330.8	23,753.0	23,753.0

Plans for 2018

Early warning and preparedness

- **Strengthening the FAW surveillance system using pheromone traps to provide early warning and the emergency response.**

- **Scouting for natural enemies of FAW is on-going**

Plans for 2018 *cont'd*

Sensitization activities:

- **Alerts sent to all regions on the resurgence of FAW**
- **Organizing FAW discussion on FM stations and community information centers.**
- **Airing FAW documentary on TV on early detection and sustainable management.**
- **WhatsApp platforms created for discussion of FAW matters.**

Plans for 2018 *cont'd*

Capacity building of MoFA staff and major stakeholders

- **Organized Trainer of Trainers workshop for 386 MoFA staff**
- **Training of at least 30 farmers/10 communities/district on FAW management is currently ongoing**
- **Trained 65 media personnel on effective reporting of infestations.**
- **Trained MoFA staff on FAO Fall Armyworm Monitoring and Early Warning Systems (FAMEWS) App.**

Plans for 2018 *Cont'd*

- **The formation of Nnoboa Spraying Teams in all districts.**
- **Strengthening Regional and District Task Forces.**
- **Evaluation of efficacy of insecticides (on-going)**
- **Re-distributed 2017 left over insecticides stocks**
- **Printing of posters, leaflets, flyers etc.**
- **Procured and distributed Biorational insecticides.**

Selected insecticides for 2018

ACTIVE INGREDIENT	WHO CLASS
Azadirachtin	IV
Bacillus thurigiensis (*Bt*) + *Pieris rapae* Granulosis Virus	II
Bacillus thuringiensis (Bt) + Monosultap	Unclassified
Ethyl Palmitate	Unclassified
Malthodextrin	III

Selected insecticides for 2018 *cont'd*

ACTIVE INGREDIENT	WHO CLASS
Acetamiprid + Lambda-cyhalothrin	II
Cypermethrin (72g/l+ Acetamiprid (16g/l)	II
Deltamethrin	II
Emamectin benzoate +Acetamiprid	II
Indoxacarb +Acetamiprid	II
Lambda-cyhalothrin + Thiomethoxan	II

Possible areas of collaboration

- **Monitoring population fluctuation of FAW using pheromone traps**
- **Scouting for local/indigenous biological control agents.**
- **Production of and conservation of egg parasitoids (*Trichogramma*) and other biological control agents.**
- **Research into the best Integrated Pest Management (IPM) technologies for sustainable management of FAW.**
- **Importation and use of biorational insecticides e.g. microbial, organic for FAW control**

Key Messages

- **FAW has come to stay and shall continue to spread in Ghana due to its biological characteristics and conducive conditions.**
- **Field scouting to identify early symptoms is critical in FAW management.**
- **Different larval instars are present on plant or in the field–results in control challenges.**
- **Farmers need to use Integrated Pest Management (IPM) approach for sustainable management of FAW in their cropping system.**

Adult FAW

Egg mases


THAT'S ALL