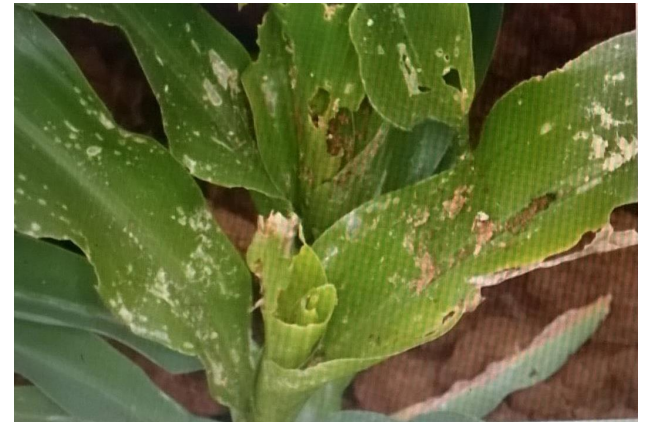


# Fall Armyworm - A new pest problem in maize



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# Fall Armyworm - *Spodoptera frugiperda*

## Lepidoptera : Noctuidae

- **FAW is a quarantine pest**
- **Native to tropical and sub tropical regions of America**
- **Reported in 2016 In Africa (West and Central Africa, Zambia and Zimbabwe): yield loss 30-60%**
- **Reported in India in 2018**
- **Reported in Sri Lanka in 2018**

**Ampara, Anuradhapura, Moneragala, Kurunegala districts**

- **FAW has a wide host range  
over 100 different crop species**

Main hosts: maize, millet, sorghum, rice, wheat, sugarcane

Other hosts: cabbage, beet, groundnut, soybean, onion,  
cotton, grasses, tomato, potato

- **FAW spreads quickly across large geographic areas**

Adult moth are strong fliers can fly up to 100 km  
per night

- **FAW can persist throughout the year**

Number of generations per year

# Fall Armyworm



**Male**



**Female**

## **Adult**

- **Medium sized moth having wingspan of 32 to 40 mm**
- **Forewing -shaded gray and brown, with triangular white spots at the tip and near the center of the wing**
- **hind wing -silver-white with a narrow dark border**

# Life Cycle



*creamy/grey in colour*  
*Masses of 50-200 eggs*

Eggs

3-5 d



Larva

14-22 d

Pupa



*In the soil, oval in shape,*  
*20-30 mm in length*

10 d

Adult

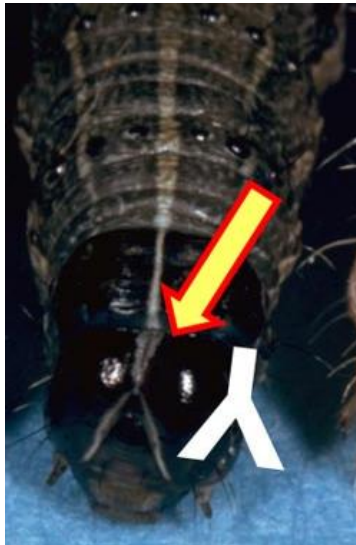


7-13 d



## Larva

- Six larval instars
- Young larvae are greenish with a black head
- The head turns orange color in the second instar
- Upside down pale Y-shaped marking on the front







## Larva

- Each of the body segment has a pattern of four spots
- Four dark spots forming a square on the second to last body segment
- Full grown caterpillar is 4-5 cm

# Symptoms of FAW damage



- Larvae mainly feed on leaves
- Large ragged and elongated holes on the leaves emerging from the whorl
- moist sawdust-like frass near the whorl and upper leaves





# Symptoms of FAW damage



- **Under heavy infestations, larvae feed on cobs**
- **Larvae enter through the side of the ear and feed on developing kernels**

# **Control of Fall Armyworm**

# Integrated pest management strategies

- **Handpick and destroy eggs and small caterpillars**
- **Remove and destroy plant residues immediately after harvesting**
- **Avoid staggered planting/ late planting or off-season planting / planting new crop near infested fields**
- **Plough the soil after harvesting to destroy pupae**
- **Crop rotation and mixed cropping**
- **Keep the surroundings of the fields free of grass weeds**

- **Establishment of pheromone traps**
- **Use of organic manure**
- **Use of recommended fertilizer/avoid use of excessive amounts of nitrogen fertilizer**
- **Apply sand, ash into the whorl**
- **Apply neem seed kernel extract –  
300-500g/ 10 l water**
- **Do not move infested plant materials to reduce spread**



# Tentative recommendation for FAW

Common name of the Insecticide	Trade name	MOA Group	Dilution per 10 l water	Rate of Application	
				Low foliage	High foliage
Spinotoram 25%WG	Radiant	5	3 g	100 g	180g
Spinosad 25g/l SC	Success	5	10 ml	320 ml	600 ml
Emamectin benzoate 5%SG	Proclaim	6	4 g	130g	240 g
Etofenprox 100g/l EC	Trebon	3A	15ml	480 ml	900ml
Flubendiamide 24%WG	Belt	28	4 g	130 g	240g
Flubendiamide 20%WG	Takumi	28	5 g	160 g	300g
Chlorantraniliprole 200g/l SC	Coragen	28	3 ml	100 ml	180ml
Tebufenozide 200g/l SC	Mimic	18	15 ml	480 ml	900 ml
Chromafenozide 50g/l SC	Pordex	18	20 ml	640 ml	1200ml
Novaluron 100g/l EC	Rimon	15	10 ml	320 ml	600ml
Bistrifluron100g/l EC	Hanaro	15	15 ml	480 ml	900 ml
Lufenuron 50g/l EC	Nuro Lufenuron	15	10ml	320 ml	600ml



# Immediate and future actions for FAW control

- **Implement awareness programmes through leaflets, banners and media targeting farmers and extension officers on FAW identification, prevention, management, monitoring and direct control**
- **Conduct research to identify the most effective insecticides to control FAW**
- **Develop sustainable management options based on integrated pest management approach**

Thank you