

Pheromone Trap for FAW Detection

Monitoring and scouting: Use pheromone trap/lure to track the flight migration of FAW adults to allow growers to prepare ahead of a potential infestation. Install 1 lure/trap in every 20 has corn area for detection of FAW.

1. SETTING UP THE TRAP

- Select a secure area that is not too close to a building.
- Install the trap inside or on the edge of a corn field, or in an open area nearby.
- Hang the trap about 1-1.5 meters above the ground.
- Put one of the pheromone lures inside the trap.
- Get the GPS coordinates of the installed trap.
- Replace the lure every four weeks to achieve optimum result.

2. CHECKING THE TRAP EVERY WEEK

- Count the number of moth inside the trap
- If in doubt as to whether a moth is FAW, (compare with the leaflet) seek the help of an entomologist or a crop protection expert.
- Record the date of collection and the number of moth captured.
- Dispose/bury the collected moths on a waste pit.
- The trap can be reused again.

Recommended Management

- Monitor and survey the corn areas infested with fall armyworm.
- Clean the field and remove weeds.
- Synchronous planting
- Crop rotation
- Intercropping
- High tillage practices
- Use of pheromone traps
- Use of biological control agents such as earwig, lacewing, *Trichogramma evanescens* and *Metarhizium anisopliae* throughout the area. They are available at the Bio Control Laboratory of the Crop Pest Management Division, BPI.
- Spray some botanical insecticides to manage the fall armyworm infestation.
- Apply insecticides only when needed based on economic thresholds.

References:

- <http://www.fao.org/home/en/>
- <http://entnemdept.ufl.edu>
- <https://ento.psu.edu/extension>
- <https://blog.plantwise.org>



Male FAW



Female FAW

In case of FAW detection, please contact the following Offices:

Bureau of Plant Industry Crop Pest Management Division

Office of the Chief
Tel No. (02) 236-0598
(02) 523-3853
(02) 525-2991
TeleFax (02) 523-2426

National Plant Quarantine Services Division (NPQSD)

Tel No. (02) 251-2267
(02) 251-2262
(02) 251-2272

DA- Corn Program

Tel No. (02) 920-4074
agripinoycom@yahoo.com

Regional Crop Protection Centers

RCPC, CAR	0999-888-2865
RCPC, REGION I	(072) 687-1871
RCPC, REGION II	(078) 624-2283
RCPC, REGION III	0925-568-8332
RCPC, REGION IV-A	(049) 543-0103
RCPC, REGION IV-B	0909-489-3311
RCPC, REGION V	0939-906-5608
RCPC, REGION VI	(033) 329-6958
RCPC, REGION VII	(032) 345-3483
RCPC, REGION VIII	(053) 832-2578
RCPC, REGION IX	(062) 925-5186
RCPC, REGION X	0906-553-4990
RCPC, REGION XI	(082) 221-6010, 293-1499
RCPC, REGION XII	(064) 200-7367
RCPC, CARAGA	0938-199-7947
RCPC, BARMM	(064) 421-1234, 552-3166

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WARNING



DETECTION AND MANAGEMENT OF FALL ARMYWORM (FAW)

Spodoptera frugiperda (J.E. Smith)
(Lepidoptera: Noctuidae)



Upside down "Y" pattern on dark head

Larger spots on the second last segment arranged in square pattern

Primary Hosts of Fall Armyworm

Corn, rice, sugarcane, sorghum, potato, eggplant, tomato, pepper, tobacco, crucifers, cucurbits, peanut, soybean, cotton, banana, sweet potato

LIFE CYCLE

Eggs



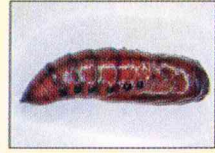
- Eggs are spherical, and white, pinkish or light-green in color.
- The duration of the egg stage is only **2-3 days** during warm conditions.
- The adult female lays egg masses on the underside of the leaves that contain about 100 to 200.
- Females are capable of producing 1,500 to 2,000 eggs in her lifetime.

Larva



- Larvae generally emerge simultaneously **3 to 5 days** following oviposition, and migrate to the whorl.
- There are six larval instar stages. In the second and third instar stages, larvae are often cannibalistic, resulting in only one larva in the whorl.
- The face of the mature larva is marked with a light-colored inverted "Y"
- Larvae mature within **14 to 22 days**, after which they drop to the ground to pupate.

Pupa



- Pupae are reddish brown and usually underground.
- If the soil is too hard, larvae may web together leaf debris and other material to form a cocoon on the soil surface.
- The duration of the pupal stage is about 8 to 9 days during summer, but reaches **20-30 days** during the winter.

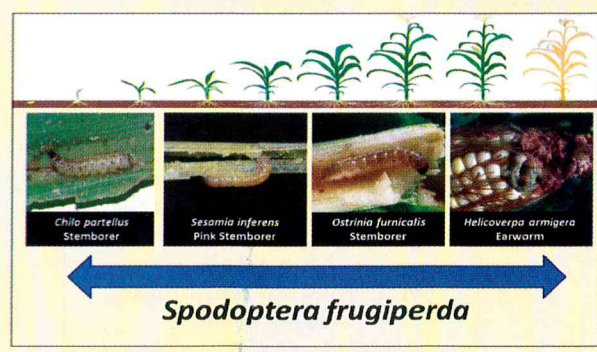
Adult



- Female moths are slightly bigger than males.
- The male forewing is mottled (light brown, gray, and straw-colored), and the female has light coloring.
- Adults are nocturnal, and are most active during warm and humid evenings.
- It can travel 100 km per night, and prior to oviposition, the FAW moths disperse about 500 km per night.
- On average, the duration of adult life is about 10 days, with a range of about 7-21 days.

DID YOU KNOW?

A. Unlike other lepidopterous pests, fall armyworm attacks all corn stages.



DAMAGE



A. FAW Larvae cutting off a seedling at ground level by chewing through the stem.



B. FAW feeding and defoliating corn leaves at whorl stages



C. FAW feeding and damage on corn tassel



D. FAW damages and burrows corn ear cobs, causing damage to grains that can lead to rot

WHAT TO DO?

- Take a picture of the suspected FAW larvae. Focus on the head and near tail end segment.
- Collect and secure the larvae/samples into a vial with 95% ethanol and submit samples to BPI.
- Report (call/ email/ text) incidence immediately to MAO, PAO, RCPC and BPI.
- Coordinate with BPI-CPMD for surveillance and validation and follow recommended management.

FIELD SCOUTING

Move through the field as shown in the image, stopping at each of the five inspection points. For each stop, inspect a minimum of 10 plants. Register on how many if the inspected plants you found (FAW). Mark "X" for presence of FAW damage and record the no. of egg, larva and pupa in the blank spaces per station.

