

Fall armyworm (*Spodoptera frugiperda*)

Biology

- The moth lays cream/grey egg masses covered in layer of grey-pink scales underside of leaves.
- The larva is green, brown or black in colour.
- A mature caterpillar has a distinct white line between eyes forming an inverted “Y” pattern on the face with pronounced 4 black spots aligned in a square on top of 8th segment near the back end. Tack action if 10% of plants are infested.



Fig 1. “Y” pattern on head of larva (M. Kasina)



FIG 2. Four Black Blocks forming a square larvae. (M. Kasina)

Damage on rice crop

- Small short or large ragged and elongated holes on leaves and inside whorls of young plants.
- The larva produces moist sawdust-like frass near the whorl and on upper leaves.
- The pest can cause up to 100 % crop yield loss.



Fig 3. Frass on leaf funnel.(M. Kasina)

Management Strategies

1. Cultural control

- Establish rice crop following the recommended practices (*refer to sheet on rice establishment*).
- Initiate pest management options if 10% of plants are infested.
- Set up FAW specific pheromone traps (one per Ha) to detect presence of pest or 4-6 traps to trap the pest. Regularly weed to remove alternate hosts of the pest.
- Do not move infested rice materials to clean areas to reduce spread of the pest.

- Handpick and squash or drop caterpillar in hot water.
- Put a half handful of sand / sawdust or soil in the whorl of the attacked plants to kill the larvae.
- Apply a pinch of 50g ground hot pepper + 2kg ash into plant funnel at knee-high.

2. Biological control

- Release egg parasitoid *Trichogramma* spp at a rate of 50,000 to 100,000 eggs per acre
- Spray *Bacillus thuringiensis varazawai* to control the pest
- Spray neem based products at 50ml/20l of water.

3. Chemical control

- Insecticides are effective on young larvae and before they enter the funnel or ear. Spray after 6.00pm for best results.
- Spray either Indoxacarb (Avaunt 150 SL), Alpha-Cypermethrin (Bestox 100Ec at 60 ml/20l), Tata alpha 10EC at 6ml/20l of water or Spinosad (Tracer at 4ml/20l). Repeat spraying after 14 days. Apply minimum 3 spays, 2 weeks after emergence at knee high.