Yellowstriped Armyworm: *Spodoptera ornithogalli*

Figure 1. Yellowstriped armyworm adult female. Photograph by: John Capinera.

Figure 3. Larvae and feeding damage. Photograph by: Skip Choate.

Actual Size:

Largest larvae is 1¾ inches.

Biology & Lifecycle: The eggs hatch in about 6 days. Larval development requires about two to three weeks depending on temperature. Pupae require two to three weeks of development. Multiple generations develop each year in all parts of Florida.

Environmental Factors: Yellowstriped armyworms overwinter as pupae. Populations may be active most of the year in southern Florida. They are active in northern Florida beginning in the spring and populations are greatest in the fall.

Adult: The moth has dark forewings with white and brown markings and white hind wings. The wingspan is about 1 ½ inches **(Figure 1)**.

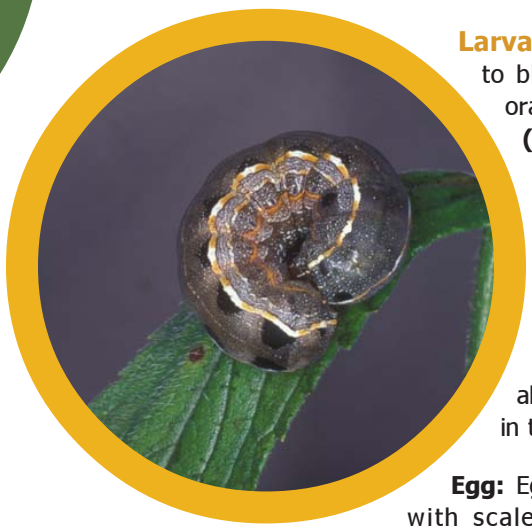

Figure 2. Black triangular spots are visible on this larvae. Photograph by: Lyle Buss.

Larvae: The color varies from gray to black. The larva has yellow-orange stripe along each side **(Figures 4 & 5)** and a pair of black, triangular spots on the back of most segments **(Figure 2)**. The sixth larval instar is about 1 ¾ inches long.

Pupa: The brown pupa is about ¾ inch long and occurs in the soil.

Egg: Eggs are laid in masses covered with scales from the moth's body. Individual eggs are small (1/20 inch), ribbed and greenish, before turning pale pink or brown before hatching.

Host range: Yellowstriped armyworms are generalists and reproductive hosts include a wide range of crops, weeds and native plant species. Tomato and pepper are hosts.

Economic Importance: An occasional pest of tomato in Florida, primarily in the fall in northern Florida.

Damage: Larvae hatch from the egg mass and begin feeding on the leaves before moving to fruits **(Figure 3)**.

Monitoring

Scouting: Frequent monitoring of once or twice weekly is needed to detect the presence of egg masses or small larvae. Inspect 6 plants for eggs and larvae for every 2 ½ acres.

Action Thresholds: Pre-bloom, 1 larva per 6 plants
Post-bloom, 1 egg or larva per field

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CULTURAL CONTROLS:

Start Clean: Tomato and pepper fields should not be planted near or adjacent to old, infested fields.

Field Manipulations: Fields should be destroyed immediately after final harvest by applying a foliar herbicide to destroy infested plants and by deep disking to destroy pupating larvae.

Volunteer plants and weed hosts should be destroyed during the summer off season by frequent disking.

CHEMICAL CONTROLS:

- This is an occasional pest that infrequently requires control. Spray tomatoes and peppers when numbers of larvae exceed the action threshold.
- Numerous insecticides are effective in controlling the small larvae. Larger larvae are difficult to control with insecticides.
- Reduced-risk insecticides should be employed to conserve beneficial organisms.

RESISTANCE MANAGEMENT:

- Insecticide resistant populations have not been documented.
  - Rotate different classes of insecticides.

NATURAL ENEMIES:

- Numerous parasitic wasps and flies attack the larvae.
- Numerous generalist predators feed on the eggs and larvae.
- A nuclear polyhedrosis virus is highly pathogenic to the larvae.

Figure 4. Note yellow-orange stripe on the larvae. Photograph by: James Castner.

Figure 5. Yellow-striped army worms can be distinguished from other armyworm species by the single yellow-orange stripe on each side that runs the length of the larvae. Photograph by: Skip Choate.

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