FALL ARMYWORM (FAW)

Spodoptera frugiperda

Description:

Adults:

Dark gray, mottled forewings with light and dark splotches, and a noticeable white spot near the extreme end of each. About 1.5 in (38 mm) long.

Eggs:

Eggs are generally laid on the underside of leaves. Egg masses are grey or whitish in color with a hairy covering.

Larvae:

Newly hatched larvae are green in color and smooth-skinned. Larvae can vary in color from light tan or green to nearly black as they develop. Larvae are similar in appearance to other caterpillars of related species and the head capsule markings are used to differentiate from other larvae. FAW larvae have a predominant white, inverted Y-shaped suture between the eyes and four raised spots on the second to last body segment.

Pupae:

Reddish-brown, 0.55-0.7 in (14-18 mm) long. Pupation occurs within the soil.

Hosts:

Wide host range of over 80 plants. Is a serious pest of field crops such as maize, rice, sorghum, alfalfa, and sweet maize, but also attacks sugarcane, soybean, cotton, tobacco, wheat, bermudagrass and other grasses, occasionally fruit crops, and some weedy plants such as crabgrass and Johnson grass

Damage:

- Larvae feed on maize at nearly all stages of growth from when the plant is young (only three leaves) and on the cob.
- Larvae cause damage by consuming the foliage. Feeding on leaves causes extensive “windowpane” damage on maize.
- Large irregular and elongated holes on the leaves are caused by larger larvae while feeding.
- Feeding inside whorls can destroy silks and developing tassels on older crops, thereby limiting fertilization of the ear.

Left: FAW larval feeding damage to maize leaves (source: Paul Choate, University of Florida). Center: Windowpane damage to leaves by larvae (source: K-State Agronomy). Right: Late instar larva feeding in a developing cob (source: Melina Miles, Queensland Dept. of Ag.).

Phenology:

- Up to twelve overlapping generations per year depending on weather and location, and the number of dispersing adults.
  - The number of generations is reported depends on the area; one generation in Minnesota and New York, two generations in Kansas, three in South Carolina, four in Louisiana, and in north Florida, adults are abundant from April to December.
- Overwinters as pupae in the soil. Does not overwinter in northern states and does not enter diapause.
- Life cycle is completed in about 30 days during the summer, and 60 days in the spring and autumn.

Lure Type and Maintenance:

- PHEROCON® FAW controlled release septa.
- Replace PHEROCON® FAW lures every 4 weeks.

Lure Storage:

- Store in unopened factory sealed packages in a cool place (< 74° F or 24° C maximum).
- Refrigerate or freeze unopened packages to carry over for annual storage.

Left: adult FAW (source: UF Entomology Dept.) Center: FAW larval distinguishing characteristics (source: USAID FAW in Africa). Right: FAW egg mass (source: Queensland Dept. of Ag.).

TRE-2110

TRÉCÉ INCORPORATED
INSECT PHEROMONE & KAIROMONE SYSTEMS
Your Edge – And Ours – Is Knowledge.

© 2022, Trécé Inc., Adair, OK USA • ® is a registered trademark and TM is a trademark of Trécé Inc., Adair, OK 74330 USA

FALL ARMYWORM (FAW), *Spodoptera frugiperda*

Trap Design:

- PHEROCON® VI Delta, PHEROCON® 1C, or PHEROCON® Bucket trap.

Placement Time:

- Traps should be placed in the field by late spring or one week after planting when crops are susceptible to damage.

Placement Pattern:

- The traps should be suspended on a stake approximately 1.5 m above the ground.
- Place traps at least 60-120 ft (20-40 m) apart.
- On edges of field or inside field 16 to 24 rows from edge, on windward side of field.

Trap Density:

- Use a minimum of two traps per field.
- Use one trap per acre for fields greater than 20 acres or one trap per hectare for field greater than 8 hectares.

Trap Maintenance:

- Check traps weekly.
- Replace trap liners monthly or when fouled with dust or insect debris.

Recommendations:

- Place pheromone traps after planting and before whorl stage to determine presence of FAW adults.
- Once moths are captured, it is advisable to search for eggs and larvae. A search of 20 plants in five locations, or 10 plants in 10 locations, is generally considered adequate.
- Avoid late planting or staggered planting in plots of different ages.

Source: Recommendations and certain other sections were sourced from CABI FAW Field Handbook for Identification and Management, UF IFAS Fall Armyworm Guide, Texas A&M AgriLife Extension, and NC State Extension - Fall Armyworms in Turf.

Note, always:

- Use only one lure per trap.
- Count and record captures as recommended.
- Change trap as needed.
- Discard lures in trash far from the area of use and remove trash afterwards.
- Follow recommendations.
- Contact local extension authorities and consultants for regional advice.

TRE-2110

TRÉCÉ® INCORPORATED
INSECT PHEROMONE & KAIROMONE SYSTEMS
Your Edge – And Ours – Is Knowledge.

© 2022, Trécé Inc., Adair, OK USA • ® is a registered trademark and TM is a trademark of Trécé Inc., Adair, OK 74330 USA