

Gardening Basics

Fall Armyworms



Among the different species of armyworms found in Texas, the fall armyworm *Spodoptera frugiperda* causes the most problems in home landscapes and golf courses. Other species you may encounter include the yellow striped armyworm *Spodoptera ornithogalli*, the beet armyworm *Spodoptera exigua*, and the true armyworm *Mythimna (=Pseudaletia) unipuncta*.

The fall armyworm caterpillar is the larval stage of the fall armyworm moth which has a wingspan of about 1.5 inches, with white hind wings and dark gray mottled front wings. The female moth lays very small whitish eggs at the base of the host plant that hatch into tiny caterpillars that grow as they feed. They are green with brown or black colorations, and a distinct inverted Y shape on their head. At maturity, caterpillars are 1 to 1.5 inches long. Unable to survive cold winter temperatures, adult moths emerge from the pupal state, generally in south Texas, and then fly long distances to inhabit residential landscapes and crops. Several generations (from egg to adult) can occur in a season, with the lifecycle taking 28 days. With the right weather conditions in North Texas, consisting of a dry period, followed by a cool front and rain events, their population can explode quickly, with severe damage appearing literally overnight.

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Habits

Armyworms prefer to feed on high-quality fertilized forage (e.g. Bermudagrass and other turfgrasses, hay, sorghum, corn, wheat). However, when food sources are scarce or they have consumed the grasses, they will feed on any other available plant, including those in your vegetable garden. The caterpillars eat 24 hours a day but are most active in the early morning and late afternoon/early evening. Armyworms feed on the blades of turfgrasses, but do not eat the roots.

In many cases, turfgrasses, especially Bermudagrass, will recover from a light infestation. Heavy infestations that cause significant damage can cause plant death.

Control

Examine your turfgrass in the early morning to assess their presence and population density (called 'scouting'). Natural predators of fall armyworms include birds, wasps, flies, fire ants, ground beetles, skunks, and rodents. In fact, spotting groups of birds feeding in turfgrass is a sign that fall armyworms are present.

Apply chemical treatments only when armyworms occur in large numbers (3 to 5 or more per square foot) or plant damage is excessive. In pastures and hayfields use the products labeled for armyworms (e.g. pyrethroids and growth inhibitors). Pyrethroids will kill the armyworms; growth inhibitors disrupt the normal development of immature insects.

In home landscapes, these steps are recommended if treatment is warranted:

- Mow first if mowing is needed; catch the trimmings and bag them for the trash
- Lightly irrigate the area several hours before treatment to bring caterpillars to the surface
- Apply insecticide early or late in the day
- Insecticides for home use include granular pyrethroids (e.g. bifenthrin), effective low impact insecticides such as halofenozide (effective for small caterpillars only) and spinosad. One application will usually solve the problem, but heavy infestations may require a second application after 2-3 days. *Bacillus thuringiensis* (Bt) selectively controls small caterpillars but is effective for only 1-2 days.
- This informative article on controlling armyworms in turfgrass from the Alabama Cooperative Extension System includes an expanded list of insecticides for home use: <https://www.aces.edu/blog/topics/lawn-garden/controlling-fall-armyworms-on-lawns-and-turf/?cn-reloaded=1>
- Armyworms do not survive freezing temperatures

Always carefully read and follow all label instructions for effectiveness/suitability for your type of grass/plants and follow safety precautions regarding human and animal health.

Resources:

“Armyworms in Turfgrass” (October 2018). Chris Sansone, Rick Minzemayer, and Mike Merchant, Texas A&M AgriLife Extension: <https://citybugs.tamu.edu/factsheets/landscape/lawns/ent-1007/>

“Armyworm”, Casey Reynolds, PhD, Mike Merchant, PhD, and Diane Silcox Reynolds, PhD, AggieTurf, Texas A&M AgriLife: <https://aggieturf.tamu.edu/turfgrass-insects/armyworm/>

“Fall Armyworms On The March Across Texas” (July 22, 2021). Adam Russell, Texas A&M Communications: <https://today.tamu.edu/2021/07/22/fall-armyworms-on-the-march-across-texas/>

“The Fall Armyworm – A Pest of Pasture and Hay.” (2019 Revision). Allen Knutson, Texas A&M AgriLife Extension: <https://foragefax.tamu.edu/files/2019/07/Armyworm-Fact-Sheet-2019.pdf>