

# Turfgrass Insects

## Insects and Mites of Texas Turf

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Figure 1

### Insect Identification

Insects provide numerous benefits to landscapes and golf courses including pollination of flowering plants, decomposition of organic residues, and aeration by tunneling arthropods such as earthworms. However, there are also several species that can be problematic in managed turfgrasses as a result of their chewing and/or sucking on plant tissue, up-rooting turf, creating mounds that can affect mowing, etc. In order to manage insect pests in turfgrasses, it is important to understand their function, life cycle, and habits.

Insects are distinguished from other arthropods by having a body with three distinct divisions: The head, the thorax, and the abdomen. The head typically contains mouthparts, simple or compound eyes, and a pair of antennae for sensory functions (Figure 1). The thorax typically contains two pairs of wings and three pairs of legs, while the abdomen contains various internal systems such as the digestive, respiratory, and reproductive tracts.

### Metamorphosis

Insects develop through a process called metamorphosis, of which there are two types: gradual and complete. Insects that go through gradual metamorphosis have 3 stages: the egg, the nymph (immature stage), and the adult. Examples of turfgrass insects that go through gradual metamorphosis include mites, ground pearls, mealybugs, chinch bugs, and mole crickets. Insects that go through complete metamorphosis have 4 stages: the egg, the larva (immature stage), the pupa (resting stage), and the adult. Examples of turfgrass insects that go through complete metamorphosis include armyworms, billbugs, cutworms, fire ants, sod

webworms, and white grubs. This is an important point to note because damage symptoms and insecticide treatment options often vary by life stage.

**Habitats and Damage**

One method commonly used to classify insects and mites is by the habitat in which the destructive stage of the pest spends most of its life. Insects often impact different parts of the turfgrass (leaves, stems, and/or roots), and as a result, the symptoms of damage can vary. For example, the presence of armyworms or cutworms is visible in chewed turfgrass leaves while the presence of white grubs is evident by chewed or damaged roots. As is the case with other pests, proper identification is the first step in managing turfgrass insects. For more information on specific insects, click on the hyperlinks below.

**Table 1.** Common Turfgrass Insect Pests grouped by Habitat within the Turfgrass Canopy.

<b>Leaves and Stems</b>	<b>Stems and Thatch</b>	<b>Thatch and Roots</b>
Bermudagrass mites	Armyworms (/turfgrassinsects/armyworm/)	Hunting billbugs (/huntingbillbugs/)
Rhodesgrass mealybugs	Chinch Bugs (/turfgrassinsects/chinch-bugs/)	Mole crickets (/turfgrassinsects/mole-cricket/)
	Cutworms	Sugarcane beetle
	Sod webworm	White grubs (/turfgrassinsects/white-grubs/)
* Red Imported Fire Ants (RIFA) can be present in all parts of the turfgrass canopy		



<http://www.facebook.com/tamusoilcrop>)



<https://www.istock.com/photos/134229975@N08/>)



[https://www.youtube.com/watch?v=bIY16p\\_RVJU](https://www.youtube.com/watch?v=bIY16p_RVJU))



<https://twitter.com/AggieTurf>)

Texas Turfgrasses - (<https://aggieturf.tamu.edu/texas-turfgrasses/>)

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