



# CAES

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## INSECT PESTS OF TURF

Maintaining lawn health requires managing physiological and environmental factors, disease issues, and pests. Turf-feeding insects are problematic when they overpopulate landscape lawns and turf areas. Feeding damage, coupled with normal drought conditions in the summer and early fall can cause widespread browning and thinning of turf.

### **Sod Webworm:**

The larval stage of the sod webworm moth (*Crambus* sp.) is a ½ - ¾” long light brown caterpillar that feeds on grass blades. It is most active during evenings in the fall and spring. They overwinter in tunnel-like silk shelters at the soil layer. By June, the caterpillars have fully matured and retreat to these shelters where they pupate and emerge as adults. This biology can repeat several times throughout the summer months. The adult moths do not feed on turf. They are a whitish-gray to brown moth with a ½ - ¾” wingspan. They can be seen hovering or fluttering erratically over turf as they lay single eggs during late summer and early fall nights.

Sod webworm damage results in irregular brown patches of turf that resemble drought stress, which will not improve with watering. During hot and dry conditions in late summer, the damage becomes even more

noticeable. Larval shelters, filled with green fecal pellets, can also be a sign of sod webworm infestation.



**Fig. 1: Armyworm (feeding on corn)**

### **Armyworm:**

Armyworm caterpillars (*Spodoptera frugiperda*) are more frequently pests of vegetables, but they can also feed on and defoliate grass patches. The first generation overwinters as pupae in the soil. The first adults emerge during the spring. Adults are 1-inch-long grayish brown moths with white hindwings. The adults do not feed on turf. Eggs are laid directly on new growth. Caterpillars hatch, feed on leaves, and mature in about a month. Mature armyworm caterpillars are 1 ½ inch long and brown-striped (Fig. 1). The second generation of adults emerge in midsummer. A third generation can sometimes appear in the late fall.



**Fig. 2: Chinch bug nymph**

### **Chinch Bug:**

Chinch bugs (*Blissus leucopterus*) cause damage to turf during both the nymph and adult stages when they tap into grass blades using their piercing-sucking mouthparts. Feeding on turfgrass typically causes scattered brown patches similar to drought stress which will not improve with watering. Additional drought conditions will cause more severe damage. Chinch bugs overwinter as adults in thatch and other sheltered areas deep in lawns. In early spring the 1/10-inch-long chinch bugs emerge, and females lay eggs on grass roots, thatch, and leaf sheaths of new spring blades. Nymphs (Fig. 2) hatch in mid to late spring and begin feeding on the turfgrass (Fig. 3). The first generation matures by early summer. There are multiple generations per year, each generation usually maturing every other month. Adults that mature in the fall will overwinter.



**Fig. 3: Chinch bug damage in turf**

Please note that excessive application of fungicides to turf can suppress fungal pathogens that control chinch bug populations.

### **White Grubs:**

Four non-native scarab beetle species make up the ‘white grub complex’ that are common turf pests in lawns: the Japanese beetle, the Oriental beetle, the European chafer, and the Asiatic garden beetle. The white grubs feed on roots directly below the soil surface, resulting in entire patches of dead turf that can be pulled up like a carpet. A full description of white grub biology and control can be found in the CAES article “[Managing White Grubs in Home Lawns.](#)”

### **Management and Control:**

Maintaining healthy and vigorous turf greatly reduces the damage from these insects. Correct irrigation and annual fertilization will also promote lawn growth and soil testing will indicate if lime or other mineral supplements are required. When necessary, dethatching will ensure both even irrigation and efficient delivery of fertilizers and pesticides, as well as reduce overwintering habitat for chinch bugs and sod webworms. Monitoring for pest presence in lawns early before damage appears can indicate whether direct control is required. An irritant drench of 1 fluid ounce of dish detergent to 1 gallon of water poured on a square yard of turf will drive caterpillars and chinch bugs to the surface. More than five armyworms or fifteen sod webworms per square yard indicates that direct control may be needed.

Chemical controls for sod pests include fluvalinate, spinosad or carbaryl. Timing of treatments are important, because they are most effective on early stage larvae or nymphs. Always follow manufacturers label directions.