









TURFGRASS INSECT PEST IDENTIFICATION KEY

This key is intended to be a starting point for identifying insect pests of landscape turfgrasses. Contact your local county Extension office for further information, including insect management recommendations.

Insect	Species	Identification	Occurrence	Damage/Monitoring	Photo
Caterpillars	Tropical Sod Webworm (TSW)	Caterpillars are gray-green, and have brown spots on each segment. Mature larvae are ¾ to 1 inch long.	Tropical sod webworm larvae feed on all warm-season turfgrasses. Most active from April through November in north Florida, but may occur year-round in south Florida.	Caterpillars injure grass by chewing notches along the leaves, creating a ragged appearance. Mature larvae consume most of the grass blade. To find larvae, part the grass in suspect areas and look for chewed leaves, frass, and larvae. A soap flush (mixing 1-2 gallons of water with 1-2 TBSP of dish soap) poured over the infested turf will make them emerge quickly. If nothing emerges, examine several other areas.	
	Fall Armyworm (FAW)	Caterpillars can be green or brown, up to 1½ inches long with four pairs of fleshy prolegs on the abdomen. Larvae have light stripes along the length of the body, dark spots on top of each segment, and an inverted light-colored 'Y' on the front of their head.	Fall armyworm will feed on all turfgrasses, but prefers Bermuda grass. Fall armyworm populations occur year-round in south Florida but don't build up until fall in north Florida.	Most turfgrasses can tolerate the notching damage that young larvae cause, but 3 mature FAW or SGP larvae per square foot may justify treatment. About 10 to 15 TSW could warrant treatment. Large larvae pupate quickly however, possibly making insecticides unnecessary.	
	Striped Grass Looper (SGL)	Caterpillars have a long, thin body with two pairs of fleshy prolegs, and "loop" like inchworms when crawling. Their color ranges from cream to black, with a light-colored narrow stripe down their backs, and many stripes on their heads.	Striped grass looper is primarily a pest on Bahiagrass in pastures, but will readily infest other turfgrasses. Striped grass looper occurs year-round in south Florida, and isn't a problem until fall in north Florida.		

Insect	Turfgrass Affected	Occurrence/Damage	Identification	Monitoring	Photo
<p style="text-align: center;">Chinch Bugs</p>	<p>Prefers St. Augustine</p> <p>Can also feed on Bermuda, Bahia, Centipede, and Zoysia, but damage is not usually severe.</p>	<p>Southern chinch bug activity occurs from March through November in north-central Florida and is year-round in southern Florida.</p> <p>Nymphs and adults feed on plant fluids within leaf sheaths, down in the thatch, and this feeding kills the grass plants and contributes to weed invasion.</p> <p>Use the monitoring techniques listed to examine several different areas if chinch bug damage is suspected.</p>	<p>Several insects can be confused with chinch bugs, so proper insect identification is important.</p> <p>Adult chinch bugs (top photo) are about 1/8 to 1/10 of an inch long; wings (long or short) are folded flat on the back and are shiny white with a triangular-shaped black marking in the middle of the outer edge of each wing; bodies are black.</p> <p>Tiny eggs are laid singly or a few at a time in leaf sheaths, soft soil, or other protected areas. The eggs are white when first laid and turn bright orange or red just before hatching.</p> <p>Young nymphs (bottom photo) are reddish-orange with a white band across the back, darken in color as they mature, and turn black before becoming adults.</p>	<p>Insects are most active on warm, sunny days in mid-afternoon. Several methods can be used to find chinch bugs:</p> <p>1 - Part the grass near yellowed areas and look at the soil surface and thatch. Pull out individual grass plants and look inside the bottom leaf sheath.</p> <p>2 - Use a Dust Buster or hand-held vacuum to suck up any chinch bugs near damaged areas. Remove the filter, empty the contents on the sidewalk or in a bucket, and look for nymphs and adults.</p> <p>3 - A flotation technique can also be used to detect infestations. Cut both ends out of a metal can and push one end 2-3 inches into the soil on green or yellowing grass. Slowly fill with water and count the number of chinch bugs that float to the top within 5 minutes. Keep the water level above the grass surface.</p>	 

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Grubs	Most warm-season turfgrasses are affected by one grub species or another	<p>Depending on the grub species, damage from grubs may peak during the summer and fall months, continue into winter, or occur year-round.</p> <p>Grubs feed on grass roots; the grass gradually thins, yellows, and dies. Grass may feel soft and spongy. Scattered, irregular, brown patches of grass appear which increase in size over time. The root injury reduces the turf's ability to take up water and nutrients and withstand drought stress. Heavily infested grass pulls up easily.</p>	<p>Use a shovel to sift through the top 3 inches of soil, roots, and thatch. Look for creamy-white, C-shaped beetle larvae (¼ to 2 inches), with tan to rusty-brown heads and six legs. Afterwards, replace the grass and water it.</p> <p>***Finding a few grubs is not cause for alarm. Damage thresholds vary with grub species and turf quality.</p>	 
Mole Crickets	Bahia, Bermuda, St. Augustine (commonly injured) Centipede & Zoysia (infrequent injury)	<p>Typically, the eggs are deposited in April-May, and juveniles (called nymphs) predominate through August. Beginning in August or September some adults can be found, but both nymphs and adults can overwinter.</p> <p>The crickets damage turfgrasses, vegetable seedlings, and even some weeds, feeding aboveground on foliage or stem tissue, and belowground on roots and tubers.</p> <p>Soil surface tunneling may or may not be evident; a soap flush will confirm an infestation.</p>	<p>Conduct a soap flush, mixing 2 TBSP of lemon dishwashing soap with water in a 2 gallon sprinkling can. Pour over a 4 square foot area near the damage and see what emerges within 3 minutes. Check several places in the lawn; consider control if more than 2 to 4 crickets is found per square foot.</p>	
Spittlebugs	All turfgrasses; Centipede is the most susceptible	<p>Occur spring through fall; both adults and nymphs suck juices from the grass; grass may wilt, turn yellow/brown, and then curl. In St. Augustine, spittlebug injury resembles that of chinch bugs. However, unlike chinch bug injury, which tends to occur in sunny areas, spittlebug injury usually appears in shady areas.</p> <p>Adults have red eyes and legs and have two orange stripes across their wings. Nymphs are yellow or cream colored, but are surrounded by a mass of white frothy spittle.</p>	<p>Look for purple and/or white stripes along the grass blades (especially centipede).</p> <p>Look for masses of spittle and adult insects.</p>	