



Pasture Mealybug

(*Heliococcus summervillei*, *Heliococcus novovillei*)

Pasture mealybug (PMB) is an invasive insect pest whose feeding causes severe damage to warm-season perennial grasses, such as southern pastures and hay fields, and sugarcane. PMB also affects several other crops, including turfgrass, ornamental grasses, corn, and rice. The insect is very small and often difficult to see, especially early in an infestation.

Distribution and Spread

PMB is native to South and Southeast Asia. In the United States, PMB has been confirmed in Florida, Georgia, Louisiana, and Texas. Its spread into new areas is possible due to several natural and human-assisted pathways. PMB spreads naturally through wind and water, movement of infested plant debris or soil, movement on birds and animals, and local dispersal within infested pastures. People can also spread PMB by moving hay or warm season grass products, transporting livestock or equipment with soil or plant debris, and moving nursery plants that may host PMBs.

These pests are typically found on lower stems, crowns, and roots, or hidden within soil or plant debris. Because PMB is small and often hidden at the base of plants or underground, infestations may go unnoticed until symptoms on plants appear.



Infested grass stem, University of Florida, Nicole Quinn. Inset: Close-up of adult PMB, Texas A&M.

Damage

PMB nymphs do most of the feeding that causes plant damage. Although they typically hide at the base of the plant in crowns, stems, or thatch, they are highly mobile and move between crowns, stems, roots, and lower leaves to feed. When populations are high, nymphs may be visible on exposed stems or leaves. While feeding, they inject saliva that weakens the plant and increases susceptibility to disease. Infested areas may show yellowing or purpling of leaves, stunted growth, or patchy dieback in circular or irregular patterns. Severe infestations can cause rapid plant decline or death within weeks and may be associated with increased honeydew production, which can lead to sooty mold on blades and stems.

Dieback patches expand over time, reducing forage availability and affecting pasture productivity. Proper identification is important because dieback symptoms look similar to drought stress, nutrient problems, or diseases, and management actions differ for each.

Description

PMB are very small, usually less than $\frac{1}{8}$ inch long. They have a soft, oval body, a white, waxy or powdery coating, and short filaments, or hair-like strands, around the edges of the body. Nymphs closely resemble smaller versions of adults. Gravid females develop a pink coloration and migrate into the thatch or soil to produce offspring. Males are rarely observed and are smaller, with longer filaments and typically only present during summer months.

Life Cycle

PMB can produce up to three overlapping generations per year in warm climates. Populations increase as temperatures warm in spring. In summer and early fall, PMB reproduce quickly, increasing in number and expanding dieback patches. In winter, females and nymphs survive in soil or plant debris, which allows PMB to persist in cold periods and re-populate fields the following year. Their ability to stay below ground makes PMB difficult to reach with contact insecticides.

Where To Look

Monitoring should focus on warm season perennial grass pastures, sugarcane, hay fields, turfgrass areas, ornamental grass and nursery production sites, and rice fields with unexplained plant decline. Look closely at plant crowns, roots, soil surfaces, thatch, underside of leaves, and the base of stems because PMB may not be visible from above. At low numbers, PMB may only be visible at the crown or root zone. At high numbers, the white waxy buildup and associated sooty mold may be visible more broadly.

Control

Researchers are evaluating insecticides, as there are none permanently labeled in the United States for PMB. Without further advancements in control tools and methods, eradication of PMB in the United States is unlikely. Management focuses on reducing its spread and limiting damage in affected areas. Follow guidance from your State Department of Agriculture or local Extension office. When recommended, destroy or treat infested plant material,



Top: Infested roots showing waxy buildup. Bottom left: PMB visible on reddening and dying limpgrass leaves. Bottom right: Field with dying grass. Florida Department of Agriculture and Consumer Services, Erin Powell.

clean equipment and vehicles before leaving infested fields, and avoid moving hay or other plant material from locations where PMB is present.

Researchers are testing insecticides and other tools to manage PMB, and your Extension office can provide the most current recommendations for your region. USDA and its partners are evaluating biological control options, and management strategies that work best under different conditions.

Report Your Findings

If you think you've found PMB or see host plant damage like the symptoms described, contact your local Extension office (www.nifa.usda.gov/Extension) or your State Plant Regulatory Official (www.nationalplantboard.org/members). Provide photos and location information when possible.