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Pasture Mealybug: A New Threat for Pasture Grass, Turfgrass, and Sugarcane in Florida[1]

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Overview

The pasture mealybug (*Heliococcus summervillei* Brookes) is a grass-specialist insect pest (Hemiptera: Coccomorpha: Pseudococcidae) recently found in Florida that can be problematic for pastures, hayfields, and sugarcane. This pest can cause severe dieback of grasses (Figure 1). It was first reported in the continental United States in Texas in October 2025, though researchers suspect it arrived before 2022 (Biles et al. 2026). In Texas, it was found on multiple different grasses, including bermudagrass, bahiagrass, and johnsongrass. In addition to pasture and turfgrass systems, pasture mealybug has emerged as an important pest of sugarcane, spreading eastward from Texas to Louisiana (Wilson and Baca 2026). In Florida, it was first reported by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry (FDACS-DPI) on limpograss in the southeastern part of the state in late May 2026 (Powell and Hauxwell 2026). As of July 15, 2026, FDACS-DPI surveys have confirmed the mealybug in sixteen Florida counties including Brevard, Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Indian River, Lee, Martin, Okeechobee, Osceola, Palm Beach, Polk, and St. Lucie. Most of the damage in Florida thus far has been observed on sugarcane, limpograss, bahiagrass, and bermudagrass (Table 1; Powell and Hauxwell 2026).

Available evidence suggests that pasture mealybug feeds exclusively on grasses (Poaceae). Reports of pasture mealybugs on broadleaf plants (e.g., Aca-Martinez et al. 2025) should be interpreted cautiously, as these observations do not necessarily demonstrate that the plants function as feeding hosts. Instead, mealybugs found on non-grass plants are likely the result of severe infestations spilling over from nearby grasses. Young mealybugs (nymphs) feed on plant sap within leaves, stems, shoots, and roots, causing yellowing that turns into purple or red discoloration, potentially killing the grass. There are currently no insecticides specifically labeled for pasture mealybug control. Since they feed on the underside of the leaf blade, can overwinter in the soil, and go down to ground level to reproduce, control with insecticides is likely difficult on its own. The application of broad-spectrum insecticides can kill potential predators, such as ladybugs and lacewings.

Figure 1. Limpograss pasture with pasture mealybug damage.
Credit: Erin C. Powell, FDACS-DPI.

In this publication, we provide up-to-date information on the status of the pasture mealybug in Florida, its detection, and potential management strategies. It is intended for pasture and hay producers, sugarcane growers, livestock producers, turfgrass managers, UF/IFAS Extension agents, crop consultants, industry professionals, and other stakeholders involved in the management of pasture mealybug in Florida.

Background

The pasture mealybug was first described from Australia in 1928, where it has caused major pasture damage for nearly a century (Hauxwell 2018; Hauxwell et al. 2022). More recently, it spread across the Western Hemisphere, reported in Puerto Rico in 2019, Barbados in 2020, Mexico in July 2025, and Texas in October 2025 (Aca-Martinez et al. 2025; Biles et al. 2026; Powell and Hauxwell 2026). Now confirmed in over 70 counties in Texas as of June 2026 (Biles et al. 2026; Russell 2026), spreading into central Louisiana (Wilson and Baca 2026), and already detected in sixteen counties in Florida (Powell and Hauxwell 2026), this pest poses a serious risk to Florida's pasture grass, hay, and sugarcane industries. Although the suitable climates for pasture mealybug remain unknown, observations from Australia and the southern United States suggest that warm temperatures, high humidity, and

adequate rainfall favor population growth and increased damage. Irrigation, nitrogen fertilization, and actively growing forage systems may also support larger populations (Hauxwell et al. 2022; Biles et al. 2026). Because Florida provides suitable climatic conditions throughout much of the state, the potential for pasture mealybug spread and damage could be high.

Biology and Identification

Most of the biology and identification information in this document is described in more detail in the Florida Department of Agriculture and Consumer Services (FDACS) Pest Alert (Powell and Hauxwell 2026). A complete generation from nymph to adult takes 45 to 47 days in Texas (Biles et al. 2026) and 37 to 45 days in Australia (Hauxwell 2018). Once mated, a single female can produce over 100 offspring within the first 24 hours and up to 250 offspring over her entire reproductive period (Powell and Hauxwell 2026). Adult males emerge primarily in the summer. Females can live ten days after reproducing, though some live much longer—up to 100 days under laboratory conditions (Powell and Hauxwell 2026). Females can overwinter in the soil and have been found at depths exceeding 30 inches. They survive cold and dry conditions underground and emerge in spring when conditions are favorable (Hauxwell 2018). Higher humidity, temperature, and rainfall contribute to increased population size and damage potential (Powell and Hauxwell 2026).

Adult female pasture mealybugs are 2 to 5 mm long (approximately 1/16 to approximately 3/16 inch) and oval-shaped (Figures 2 and 3). The most distinctive feature is the fluffy, wool-like wax coating combined with long, straight rods of iridescent opaque wax projecting from the body. Younger nymphs are very small (less than 0.5 mm or 1/64 inch) and are creamy-white (Figures 2 and 3B). Adult females turn pink after mating. Adult males look completely different from females with one pair of wings during their brief adult stage (Figure 4A; Powell and Hauxwell 2026). Pasture mealybug most commonly feeds on the underside of grass blades. They can also be found at the base of plants, in the soil (sometimes more than 30 inches deep; Figure 7B and 10), under thatch, and under cow patties (Figure 10).

Young nymphs can be difficult to detect because they may be less than 1 mm (1/32 in) long. Therefore, magnification is often required for reliable detection. As a result, producers may observe plant symptoms before detecting insects in the field.

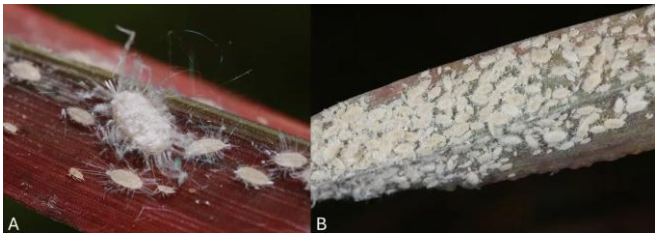

Figure 2. Pasture mealybug adult female and nymphs on a blade of limpograss (A) and a heavy infestation of pasture mealybugs on a blade of limpograss (B).
Credit: Erin C. Powell, FDACS-DPI.

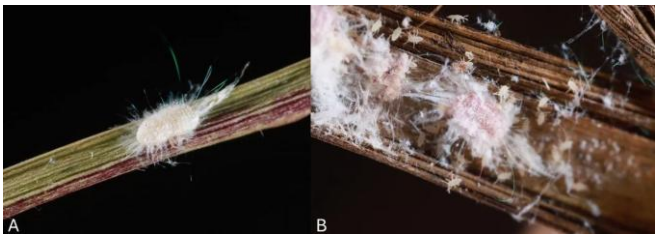

Figure 3. A cream-white adult female ahead of reproduction on a leaf blade (A) and a pink mated female with many nymphs (crawlers) down in the thatch (B).
Credit: Erin C. Powell (FDACS-DPI).

Figure 4. A pink-bodied winged adult male in a heavy infestation of unmated females and nymphs (A) and a pink mated female with her wax rubbed off from crawling through the thatch (B).
Credit: Erin C. Powell, FDACS-DPI.

Florida already has several mealybug species that feed on grasses (Dale 2020). The Tuttle mealybug (*Brevennia rehi* [Lindinger]) is common in turfgrass, primarily *Zoysia* spp. and *Cynodon* spp., and may be confused with pasture mealybug (Figure 5A). Rhodesgrass mealybug (*Antonina graminis* [Maskell]) is another grass-feeding species in Florida that typically feeds under leaf sheaths and has a dark purple body enclosed by a white waxy covering (Figure 5B). On sugarcane, the pink sugarcane mealybug (*Saccharicoccus sacchari* [Cockerell]) is also pink-bodied but has different wax characteristics and is more likely to be found underneath the leaf sheath (Figure 6B), while the pasture mealybug is exposed on the underside of the leaf blade or on the ground at the base of the plant. Pasture mealybug wax rubs off easily (Figure 4B), so wax should not be relied on for a positive identification. With over 80 mealybug species in Florida, slide-mounting is required to confirm species-level identification.

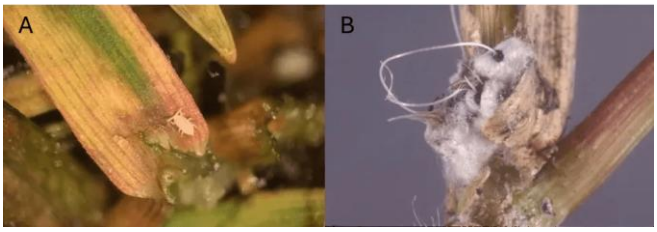

Figure 5. Tuttle mealybug nymph on bermudagrass (A) and rhodesgrass mealybug adult female with wax filament (B). Both examples are not the pasture mealybug.
Credit: (A) Adam Dale, UF/IFAS; (B) Lyle Buss, UF/IFAS.

Figure 6. Pasture mealybug in a mixed infestation with sugarcane aphids (*Sipha flava*), which can cause similar damage to both sugarcane and other grasses (A) and sugarcane mealybugs (*Saccharicoccus sacchari*) under the leaf sheath (B).
Credit: Erin C. Powell, FDACS-DPI.

Damage and Symptoms

Since the detection of pasture mealybug in Florida, most of the damage it causes has been seen in limpograss (Figures 1 and 11) and sugarcane (Figures 8 and 9). However, this pest also infests bahiagrass, bermudagrass, crabgrass, and various other roadside grasses in Florida (Table 1). In Texas, pasture mealybug targets bermudagrass, bahiagrass, johnsongrass, sorghum-sudan, several bluestems, and St. Augustinegrass (Biles et al. 2026). While it has not been observed on rice in the United States to our knowledge, this is a potential host. Symptoms can appear within a week of infestation. Early signs of injury include

- Yellowing that progresses to purple or red discoloration, though in sugarcane and guinea grass, damage remains primarily yellow
- Plants that look drought-stressed even after rain
- Overall stunting and poor root development
- Eventual death of the grass

Figure 7. Limpograss with reddening and dead leaves (A); lower canopy with extensive wax and "wilted" stems from mealybug feeding (B); and limpograss pasture recovering slowly after cutting (C).
Credit: Erin C. Powell, FDACS-DPI.

In addition to direct feeding injury, pasture mealybug renders plants susceptible to secondary pathogens such as *Fusarium* fungus (Hauxwell et al. 2022). Feeding damage is caused primarily by the first and second instars; once females begin reproducing, they stop feeding (Hauxwell et al. 2022). Opportunistic weeds often colonize dead patches, resulting in additional pasture management challenges. In heavily infested areas, entire fields can show dieback symptoms.

Factors Favoring Infestations

Conditions favoring pasture mealybug infestations include warm temperatures, high humidity, frequent rainfall, dense thatch accumulation, and actively growing susceptible grasses. High-biomass forage systems (e.g., hay pastures) may provide a favorable habitat for population growth. Pasture mealybug damage is often more severe in fields already stressed by drought, nutrient deficiencies, or other pest and disease problems. Maintaining healthy forage stands may help reduce the severity of pasture decline associated with infestations.

Scouting and Monitoring

Early detection is very important for limiting damage caused by pasture mealybug. Producers should routinely monitor host plants for yellowing, reddening, stunting, or drought-like symptoms, and inspect symptomatic areas for mealybugs. To detect infestations, focus on areas where the grass is yellowed or reddened. Note that limpograss naturally has a reddish tint, and other stressors like aphids (e.g., *Sipha flava*) or spittlebugs can also induce a yellow or reddened response (Figure 6). Field areas with thick, unmanaged growth—like fence lines, ungrazed patches, and roadsides—are more vulnerable to infestation. Scout during active grass growth, especially during warm, humid, rainy periods. Look for fluffy white, waxy, or "fuzzy"

insects. Scout early in the season, especially in fields that were previously infested. This helps detect emerging overwintering populations. When scouting, carefully inspect the underside of grass blades, plant crowns, thatch, soil surface, and areas beneath dried manure pats. Hand lens magnification may be required to detect young nymphs. When scouting, focus on the following:

- Grass blades, especially the underside (Figures 8 and 11)
- Stems and bases of plants (Figures 7 and 10)
- Thatch layer (Figure 10A)
- Under leaf litter
- Under dried cow patties (Figure 10)
- Soil surface and in the soil (Figure 7B and 10B)

If you find white waxy insects and the plants appear unhealthy, call your local Extension agent (directory.ifas.ufl.edu) or submit samples to FDACS (see reporting below).

Figure 8. Pasture mealybug on sugarcane, showing the yellow damage (A, B).
Credit: Erin C. Powell, FDACS-DPI.

Figure 9. Pasture mealybug damage on sugarcane (A, B).
Credit: Erin C. Powell, FDACS-DPI.

Figure 10. Pasture mealybugs can be in the thatch (A), in the soil (B), or under cow patties (C).
Credit: Erin C. Powell, FDACS-DPI.

Figure 11. Reddening of thin paspalum with a pasture mealybug visible on the underside of the red leaf blade (left) (A) and reddening and dying leaves with pasture mealybugs visible on limpograss (B,C).
Credit: Erin C. Powell, FDACS-DPI.

Reporting

Pasture mealybug is a recently detected invasive pest in Florida, so samples for identification should be sent to FDACS-DPI. If you suspect pasture mealybug in your pasture(s), please submit the insect to DPI for identification. More information on the procedures and forms is at the "How to Submit a Plant, Insect or Soil Sample for Identification" page at FDACS.gov.

Management

Maintaining healthy forage stands may help reduce the severity of pasture mealybug infestations. Good management—proper fertility and grazing practices and irrigation that promotes vigorous plant growth—may improve a pasture's tolerance to injury. Likewise, minimizing plant stress associated with drought, nutrient deficiencies, disease, or other insect pests may help reduce the impact of pasture mealybug infestations. Reducing excessive thatch accumulation may also be beneficial. Grazing, hay harvest, and mowing can remove infested plant material, reduce favorable habitat, and improve air movement within the canopy. In heavily infested fields, harvesting forage before significant decline occurs may help preserve forage quality and allow producers to monitor regrowth for renewed infestations. Replanting pastures with legumes (non-susceptible hosts) can be an alternative management strategy. We have not yet conducted thorough evaluations of the susceptibility of different forage or turfgrass species and varieties to pasture mealybug.

Management of other mealybugs, such as sugarcane mealybug, involves resistant plant varieties, drainage to reduce excess water in the fields, detrashing (removing dead leaves), and avoiding excessive nitrogen application (Tamil Nadu Agricultural University n. d.). Similar practices can be considered for pastures and sod production. Grazing or cutting pastures reduces thick, matted grass that favors infestations and can help eliminate thatch. This also enhances nutrient uptake for regrowth and may improve plant tolerance.

Preventing Spread

Important pathways that may facilitate the spread of pasture mealybug in Florida are 1) the use of shared contaminated equipment for cutting hay, mowing roadsides, etc.; and 2) sprigging new hay fields with infested plant material. Infestations are frequently observed along roadsides and rights-of-way, further suggesting that roadside mowing equipment may contribute to long-distance movement of the pest. Producers should exercise caution when moving equipment or hay from infested fields to non-infested areas. Pressure washing equipment is best, but blowing or sweeping is an alternative in cases where washing is not possible (Biles et al. 2026). Isopropyl alcohol or dish soap solutions can be used to spray boots, pant legs, and smaller equipment when moving between fields. Plastic covers for boots and pant legs may also be used. In addition to human activities, pasture mealybug can be dispersed by hay, wind, livestock, and wildlife.

Chemical Control

In pasture systems, Sefina® Inscalis® has received a Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 2(ee) recommendation for suppression of pasture mealybug in grass forage, fodder, and hay (including grass grown for seed), non-grass animal feeds, and mixed forage stands containing grasses. Sefina may be applied at 8 to 10 fl oz/acre. Applicators must follow all directions, restrictions, precautions, and other requirements on the federal container label. Because the Section 2(ee) recommendation has not been submitted to or approved by the EPA, the applicator must have a copy of the recommendation in their possession at the time of application.

Altus® has received a FIFRA Section 24(c) Special Local Need (SLN) registration in Florida for control of pasture mealybug in grass pastures and rangeland. Altus is labeled at 7.0 to 14.0 fl oz/acre, with a minimum 7-day interval between applications, a 7-day preharvest interval (PHI), and a 7-day grazing restriction before livestock are allowed to graze treated areas. Applications must be made in a minimum of 10 gal/acre by ground or 3 gal/acre by air. No more than two applications may be made per calendar year, and seasonal use may not exceed 28 fl oz/acre. Applicators must have both the Florida 24(c) supplemental label and the federal Altus label in their possession during application

Research evaluating these products under Florida conditions is ongoing. Preliminary observations from Texas suggest that traditional pasture insecticides, including pyrethroids, carbamates, and organophosphates, have generally provided poor control of pasture mealybug and may worsen infestations by reducing populations of beneficial predators and parasitoids (S. Biles 2026; Hauxwell 2018).

In sugarcane, the EPA has issued a FIFRA Section 18 Crisis Exemption for Sivanto® Prime to manage pasture mealybug. Sivanto Prime may be applied at 7.0 to 14.0 fl oz/acre, with a minimum 7-day interval between applications and a maximum seasonal use rate of 14.0 fl oz/acre. Applications require a minimum spray volume of 10 gal/acre by ground or 5 gal/acre by air, with a 14-day preharvest interval (PHI) and a 12-hour restricted-entry interval (REI). As with other emergency exemptions, applicators must possess the Section 18 labeling at the time of application and comply with all directions and restrictions contained in both the exemption and the federal product label.

In turfgrass systems, systemic insecticides like neonicotinoids have proven most effective for other turfgrass mealybug pests, e.g., Tuttle mealybug. Mealybugs persist underground and can reestablish a population after insecticide application. Work from Australia indicates that insecticide seed treatment for replanting infested areas can be helpful, but effects are likely to be short-lived (Hauxwell 2018).

Management recommendations for pasture mealybug are rapidly evolving. As additional research is completed and new insecticide registrations or emergency labels become available, recommendations may change. Readers are encouraged to visit the UF/IFAS Pasture Mealybug website for the latest information on pest distribution, identification, management recommendations, regulatory updates, and reporting procedures.

Natural Enemies

Documented natural enemies of *H. summervillei* from elsewhere in its range include mealybug destroyer *Cryptolaemus montrouzieri* Mulsant (Coleoptera: Coccinelidae) (Summerville 1928), and parasitoid wasps including *Callipteroma sexguttata* (Motschulsky) (Hymenoptera: Encyrtidae) (Summerville 1928) and *Yasumatsuiola orientalis* Trjapitzin (Hymenoptera: Encyrtidae) (Hauxwell et al. 2022). However, their relative effectiveness and potential as classical or augmentative biological control agents for pasture mealybug management have not been formally evaluated. In Florida, initial observations indicate undetermined fly larvae and coccinellid larvae feeding on dense infestations. A parasitoid larva has been observed in a single slide-mounted specimen. The roles of entomopathogenic fungi and nematodes in *H. summervillei* population dynamics are currently unknown but may also aid integrated pest management, pending additional testing.

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Table 1. Hosts of *Heliococcus summervillei* recorded in Florida as of June 2026. An asterisk (*) denotes a grass native to Florida.

Host Scientific Name	Common Name
Andropogon sp.*	a bluestem
*Cenchrus echinatus**	southern sandspur
Cynodon nlemfuensis	stargrass
Digitaria bicornis	Asian crabgrass
*Digitaria ciliaris**	southern crabgrass
Digitaria eriantha	digitgrass
Digitaria longiflora	a crabgrass
Eleusine indica	Indian goosegrass
Eustachys sp.*	a fingergrass
Hemarthria altissima	limpograss
*Hymenachne hemitoma**	maidencane
Imperata cylindrica	cogon grass
Megathyrsus maximus	Guinea grass
Oplismenus sp.	basketgrass
Paspalum notatum	bahiagrass
Paspalum setaceum var. *ciliatifolium**	thin paspalum
Saccharum officinarum	sugarcane

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