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Pasture Mealybugs

Last Modified:

Pasture mealybug on yellowing grass | Photo by Texas A&M University, Danielle Sekula

Pasture mealybugs (*Heliococcus summervillei* and *H. novovillei*; PMBs) are invasive insect pests mainly affecting warm-season perennial grasses and sugarcane across the southern United States. PMBs can cause “pasture dieback,” leading to significant forage and crop losses for producers. APHIS is working closely with States, land-grant universities, extension, industry, and Federal partners to improve

detection, understand PMB biology, and reduce the impacts of this emerging pest.

Pasture mealybugs are present in multiple southern States. APHIS has confirmed detections in Texas, Louisiana, Florida, and Georgia. Survey work is ongoing to identify new locations and understand its spread.

What To Look For

PMBs are very small and can be difficult to detect, especially in early stages of infestation. They primarily feed on warm-season perennial grasses, sugarcane, turfgrass, ornamental grasses, and rice.

Key Features

- Tiny, soft-bodied insect, often less than ⅛ inch long
- White, covered in wax; may look like small cottony clusters on stems or roots
- Often found low on plants, at the base of grasses, or below the soil surface
- Damage to host plants includes yellowing leaves and stunted or dead plants; also causes reddening of grass leaves

Life Cycle

PMBs can produce multiple generations per year. Activity is driven mainly by temperature, moisture, and host plant availability rather than specific seasons. Populations tend to build quickly under warm conditions, and mealybugs can move deeper into the soil (up to about 3 feet) during drought or other unfavorable periods. They reemerge when host plants resume active growth. Because limited information is available about their life cycle in the United States, the timing of life stages can vary. Multiple generations may occur annually, with feeding on roots and stems causing gradual injury that becomes more noticeable as populations increase over time.

Where You Might See PMBs

- Pastures and rangeland with warm-season perennial grasses

- Hay fields, bermudagrass, bahiagrass, or similar forage crops
- Sugarcane fields or other susceptible crops
- Turfgrass or ornamental grasses in landscapes or nurseries
- Areas showing unexplained dieback or patchy decline

If You Think You See Them

- Look for patches of yellowing or dying warm-season grasses and sugarcane.
- Check from the plant base to crown for small white, waxy insects or cottony clusters.
- Avoid disturbing the area if you suspect PMBs are present.
- Take clear photos of affected plants if safe and practical.
- Record the location and notify your local extension office or State department of agriculture.
- Use caution to not move PMBs outside of the suspected area.

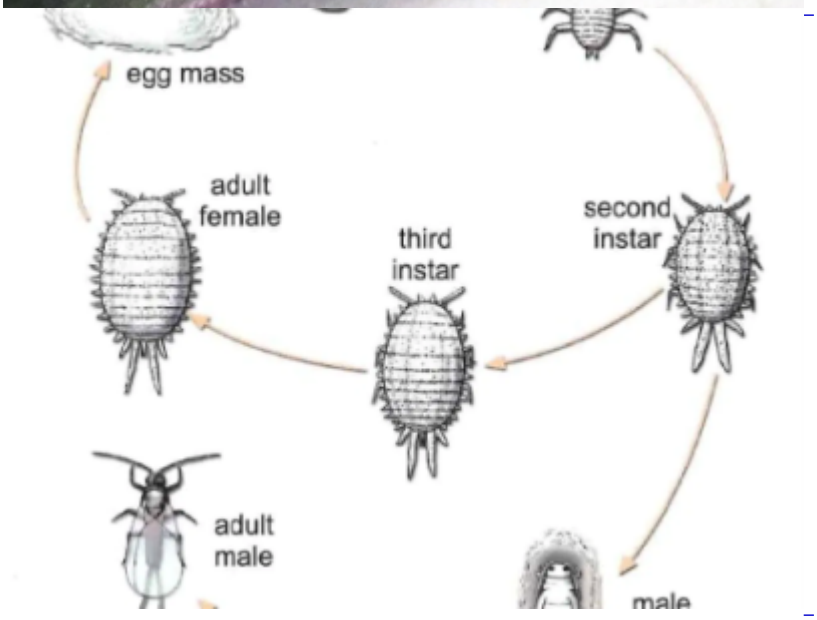
Lookalike Issues (Common Misdiagnoses)

Several conditions can result in symptoms that resemble PMB damage, including:

- Drought or heat stress
- Fungal or root diseases
- Nutrient deficiencies
- Grub or root-feeding insect injury
- Herbicide drift or overspray

These issues can create patchy dieback and leaf discoloration similar to PMB, making accurate diagnosis important.

Photo Gallery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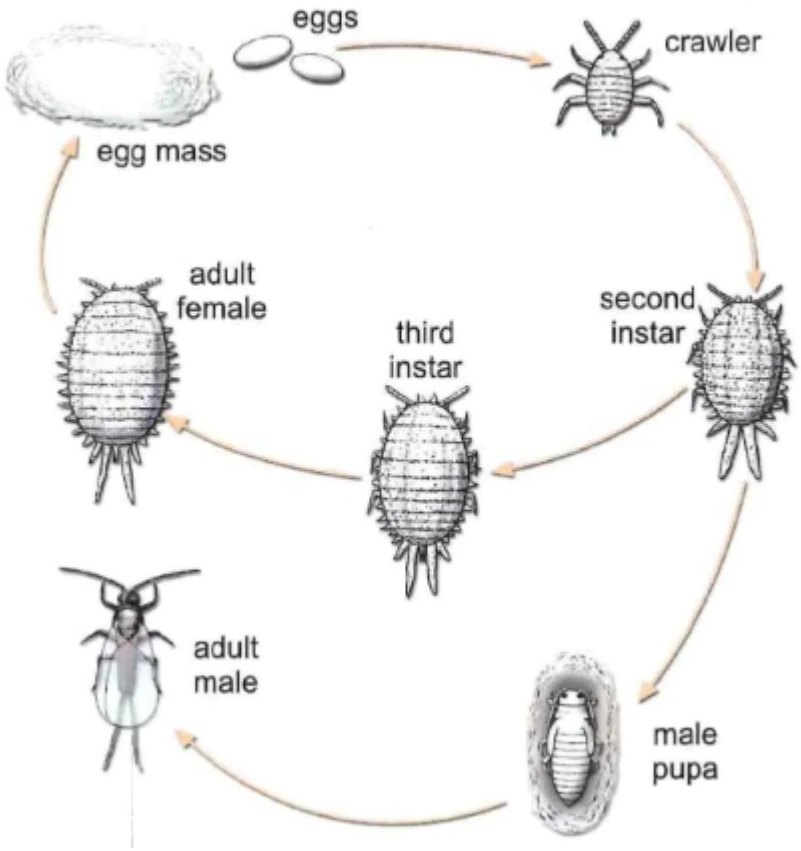
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instar
adult
male
male
pupa

Show Info

Pasture mealybugs with associated reddening of the grass blade

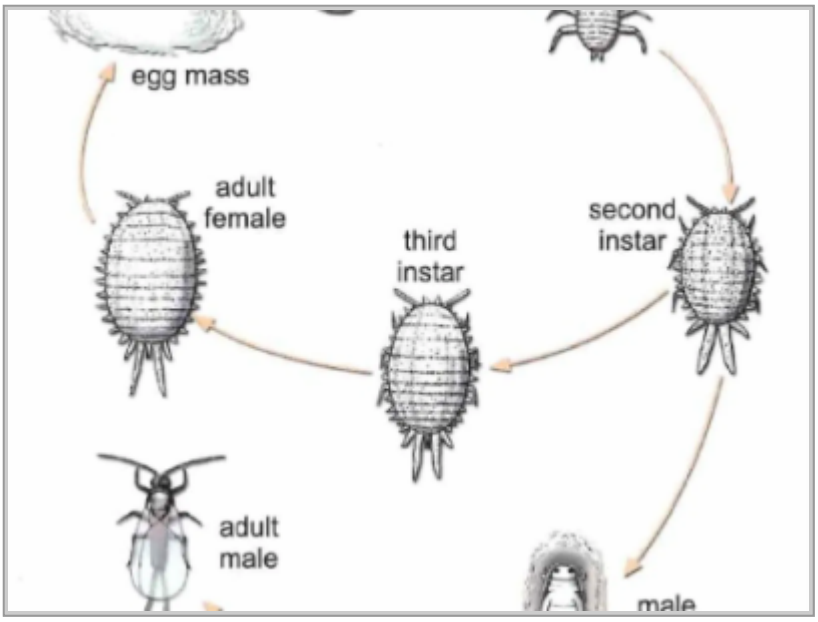
Photo by Texas A&M University, Stephen Biles

Adult female pasture mealybug surrounded by nymphs

Photo by Texas A&M University, Stephen Biles

The development of a mealybug

Image by PIRSA



What Producers Can Do

PMBs spread through wind and water; movement of livestock, hay, equipment, and plant material; soil or debris containing overwintering adults or nymphs; and natural dispersal within infested fields. Early infestations can be difficult to detect, and symptoms may resemble other stress conditions.

Producers, land managers, and industry partners can help reduce PMB spread by:

- Regularly inspecting fields for signs of dieback or PMB presence.
- Reporting suspected infestations to State agriculture departments or APHIS.
- Cleaning equipment before leaving infested areas.
- Following State and extension guidance for managing affected pastures.

How It Is Treated

Because PMBs can be difficult to identify and spread easily, producers should consult their State department of agriculture or local extension office before taking action. Using treatments without guidance can be ineffective and may contribute to further spread.

Report Plant Pests and Diseases

Have you seen this pest or signs of pest damage? Immediately report your findings.
Find your State plant regulatory official
Find your State plant health director

Controlling Pasture Mealybug

Expand All

APHIS' Response

APHIS, together with Federal and State partners, is focusing on reducing PMB's impact by improving detection methods, limiting spread, and developing management options that may help producers in affected areas.

Strengthening Detection and Diagnostics

- Confirming whether samples are *H. summervillei* or *H. novovillei*
- Sharing PMB technical resources to support consistent, up-to-date survey and identification methods
- Providing Plant Protection Act (PPA) 7721 funding for survey, research, and outreach
- Providing training on PMB identification and survey techniques
- Supporting State surveys to better understand PMB distribution

Advancing Research, Methods Development, and Biological Control

- Collaborating with USDA's Agricultural Research Service on PMB biology, host interactions, and biological control
- Working with land-grant universities on pesticide efficacy and plant resistance
- Sharing research updates to help stakeholders apply new findings

Reducing Spread and Supporting Producers

- Promoting best practices to limit PMB movement
- Developing mitigation guidance for nursery pathways
- Meeting regularly with States, extension, and industry to share updates and hear concerns

Coordinating Across USDA and Other Federal Partners

- Coordinating efforts across USDA agencies, the U.S. Environmental Protection Agency, and land-grant universities through the Rapid Agricultural Crisis Response Plan
- Prioritizing PMB research, control methods development, and survey projects through PPA 7721 funding

Resources

- Pasture Mealybug Nursery Guidance (718.15 KB) | APHIS
- New Pest Response Guidelines: Pasture Mealybug (3.31 MB) | APHIS
- Pest Alert: Pasture Mealybug (552.66 KB) | APHIS
- *Heliococcus summervillei* Datasheet (1.75 MB) | APHIS
- The Pasture Mealybug: A New Invasive Pest of Pastures and Hayfields in Texas | Texas A&M Agrilife
- Pasture Mealybugs | University of Florida
- Pasture Mealybug | Louisiana State University
- *Heliococcus novovillei* Powell & Miller, Insecta Mundi 1205 (2026) | Center for Systematic Entomology

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