

Management of Spittlebugs in Limpoggrass Pasture¹

Martin B. Adjei, Richard Sprenkel and Jim Selph²

The twolined spittlebug (*Prosapia bicincta* Say) causes considerable damage to 'Floralta' limpoggrass (*Hemarthria altissima* [Poir] Stapf and C.E. Hubb) pastures in south Florida during the summer season. Both adults and immatures or nymphs damage grasses by inserting their needle-like mouthparts and sucking plant juices. The adults also inject toxic saliva into leaf tissue while feeding, which causes streaking on the leaves. Tips of infested grass turn yellow, followed by browning and curling. Heavily infested pasture turns brown, becomes unproductive and may die back in large patches (Figure 1).

Identification

The adult twolined spittlebug is approximately 3/8 inch long, dark brown to black, has red legs and eyes, and gets its name from the two orange-red lines across its wings (Figure 2). Nymphs are cream-colored with brown head and eyes. The presence of nymphs is easily identified because they are covered with a mass of froth or spittle-like material which they produce for protection. The white



Figure 1. Limpoggrass stand damaged by spittlebug infestation.

frothy masses are found at the base or crown region of the grass when opened up with the hands (Figure 3).

Life Cycle

Spittlebugs survive winter in the egg stage in hollow stems and in thatch at the base of grass. As

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 2. M.B. Adjei, associate professor, Agronomy Department, Range Cattle Research and Education Center--Ona, FL; R. Sprenkel, professor, Entomology and Nematology Department and associate director, North Florida Research and Education Center--Quincy, FL; J. Selph, County Extension Director & Extension Agt IV, M.A., Desoto County; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32610.

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Figure 2. Adult of the two-lined spittlebug.



Figure 3. Spittle mass located in thatch at the base of limpograce pasture and adult spittlebugs on hand.

the temperature warms up, the eggs hatch in 15 to 19 days during spring (March-April) and nymphs begin feeding and producing frothy mass immediately. There are four nymphal instars, during which nymphs feed for 30 to 50 days before molting into the adult stage. On average, each adult female bug lays 45 eggs in the season. There are two, and possibly three generations of spittlebugs per year in Florida. The first generation adults from winter egg-hatch are abundant in June. These produce eggs that hatch and turn into second generation adults. The adult population peaks again in early August. Eggs laid by the second generation adults over-winter and hatch the next spring.

Spittlebug Management

There are no chemicals or biological agents currently registered for the control of spittlebugs on pasture. There are also no known effective natural enemies of spittlebugs. If Sevin (carbaryl) insecticide is applied to control other insect pests such as armyworms on grasses, some suppression of adult spittlebugs will occur. **However, spraying specifically to control nymphs inside the spittle mass is ineffective.**

Burning off the dense mat of infested dry grass in late February or early March, followed with spring fertilization, seems to provide a means of control of spittlebugs in grass pastures. **The goal of burning is to destroy eggs in the thatch of limpograce before spring growth.** After burning and fertilization, the limpograce pasture must be grazed heavily at the beginning and throughout summer to keep down the dense mat and reduce the spittlebug problem. Alternatively, the accumulated spring forage regrowth following burning and fertilization may be cut low (four inches) and baled for hay just before summer season. If this is done, a second application of fertilizer is needed. A second cutting of limpograce forage during summer may be stored as haylage. Towards the end of August, grazing pressure must be relaxed; the limpograce pasture is fertilized and stockpiled to provide winter feed. **Spittlebugs require high humidity for optimum development. Therefore, the objective of cultural management for spittlebug control in limpograce is to kill the eggs in the spring, then keep grass short and open to prevent thatch accumulation during summer.** However, in spring, fall, and winter, grass must be allowed to recover adequately to prevent stand loss from overgrazing or over-utilization.

Summary

1. If the limpograce had a heavy infestation of spittlebugs in the previous summer, consider burning the pasture in January or February.
2. If forage is needed in the winter, graze until late March or April and then burn the residue. Follow burning with fertilization and graze pasture close until late August.

3. Remember, in summer months with high rainfall, either graze close or cut to a low stubble and store the partially dry forage in a plastic tube for haylage.
4. Spraying of Sevin just for the nymphs is not an option; it will add to the production cost with very little benefit from the control of spittlebugs.

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