

# NORTHEAST FLORIDA BEEF & FORAGE GROUP



**April 2011**

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This edition of the newsletter provides you with some timely information for you to use this spring. The Northeast Florida Beef and Forage Group of extension agents is planning several events in the coming months that should be great opportunities for you to pick up some new information. These will include workshops on livestock production, weed management, forage management and mole cricket suppression.

We look forward to working with you to improve the profitability of your farming operations.

*Steve Gaul*

North Florida Beef & Forage Group, Chair

**UF** UNIVERSITY of  
**FLORIDA**  
IFAS Extension



## Bahiagrass Varieties

Barton Wilder, Agriculture & Natural Resources Agent,  
Alachua County Extension

Bahiagrass (*Paspalum notatum*) is a warm season perennial grass, native to South America. It was introduced to Florida in 1913. Bahiagrass remains popular in Florida due to its low fertility requirements, drought tolerance, and its high grazing tolerance. Bahiagrass is a sod forming grass that can reproduce by both seed and vegetatively through rhizomes. However, bahiagrass does have a several drawbacks. First, it is a low to moderate quality forage. It has less crude protein and lower digestibility than other forages such as bermudagrass, stargrass and limpograss. Next, compared to bermudagrass, fewer herbicides are label for bahiagrass. As a result,

some weeds such as sandspur can be very difficult to control in bahiagrass. Lastly, though bahiagrass is a

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sod forming grass, it has a more open growth habit, which can lead to weed encroachment.

Pensacola

Pensacola is the most widely grown bahia-grass variety. It was first identified as potential forage by the county agent in Escambia County in 1938. Compared to other varieties it has narrow leaves and taller seed stalks. Pensacola has some cold tolerance, however hard freezes will cause the top growth to be killed.

Tifton 9

Tifton 9 is an improved Pensacola bahiagrass developed by the University of Georgia. It has the same forage quality as Pensacola. However, it has a 30% increase in yield over Pensacola. One potential drawback to Tifton 9 is that if it and Pensacola are planted in close proximity, they will cross-pollinate and over several generations, the Tifton 9 will revert to Pensacola.

Argentine

Argentine bahiagrass has longer, wider leaves compared to Pensacola. It also produces fewer seed heads. Because of this, it is popular as a low maintenance turfgrass. Generally, Argentine is not recommended as a forage grass in North Florida due to its poor cold tolerance and its slow growth in the spring.

UF-Riata

UF-Riata is a promising new variety developed by Dr. Anne Blount of the University of Florida. It was developed for fall and early spring forage production. It is not as sensitive to day length as other varieties resulting in an extended growing season for both spring and fall. It produces around 10% more forage than Tifton 9. UF-Riata also outperforms Pensacola and Argentine in yield. One drawback to UF-Riata is that its upright growth habit makes it more susceptible to over grazing. To prevent this, the forage must be rotationally grazed.

TifQuik

TifQuik is another new variety developed by the University of Georgia. It was bred to have less hard seed. This results in rapid germination and quick establishment. TifQuik yields can be slightly higher in the first year compared to Tifton 9 due to its fast germination. Like UF-Riata, TifQuik must be rotationally grazed in order to prevent overgrazing and stand loss.

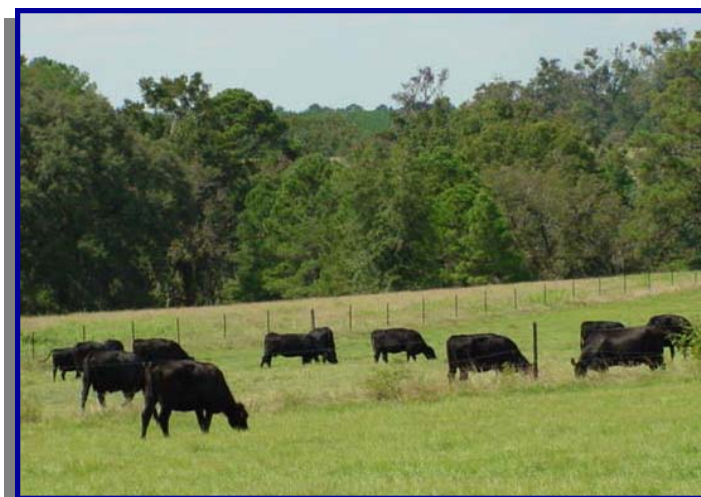
Sources:

Florida Forage Handbook. 1999. Chambliss, C. Editor Bahiagrass (*Paspalum notatum*): Overview and Management. 2010. Newman Y., J. Vendramini, and A. Blount. <http://edis.ifas.ufl.edu/ag342>  
Bahiagrass: A Quick Reference. 2011. Y. Newman. <http://edis.ifas.ufl.edu/ag271>  
Annual Research Report. 2009. UF-Riata. <http://nfrec.ifas.ufl.edu/news/2010/pdf/Blount.pdf>

**Bahiagrass Seeding Rates**

	Seeding Rates (lb/acre)
Pensacola	20-30
Argentine	20-30
Tifton 9	15-20
UF-Riata	15-20

Data from Newman et al. 2008, University of Florida



## Pasture Weed Control Decisions

Derek Barber, Livestock & Natural Resources Agent, Columbia County Extension

As spring approaches, producers will be making decisions for weed control in their pastures. There are several methods of weed control but chemical (herbicides) and mechanical (mowing) are the most common management practices. Since the price of fuel continues to rise, producers will need to look at the economic comparisons of mowing verses spraying. Below is the estimated cost of some selected herbicides.

More information can be obtained on weed management in pastures and rangeland <http://edis.ifas.ufl.edu/pdffiles/WG/WG00600.pdf> and approximate herbicide pricing <http://edis.ifas.ufl.edu/pdffiles/WG/WG05600.pdf>.

Trade Name	Common Name	Herbicide Cost \$ / Unit
2, 4-D Amine	2, 4-D	14/gal
Cimarron	Metsulfuron–methyl	27/oz
Cleanwave	Fluroxypyr + aminopyralid	5/pt
Glyphosate	Glyphosate	18-35/gal
GrazonNext	Aminopyralid + 2, 4-D	10/pt
Pastora	Metsulfuron + nicosulfuron	14/oz
PastureGard	Triclopyr + fluroxypyr	55/gal
Milestone	Aminopyrid	332/gal
Prowl H2O	Pendimethalin	33/gal
Remedy Ultra	Triclopyr	60-100/gal
Roundup Max	glyphosate	35/gal
Weedmaster	2, 4-D + dicamba	29/gal

## Bahiagrass Management

Keith W. Wynn, Agriculture Agent, Hamilton County Extension

Bahiagrass is popular in our area due to its adaptation to low soil fertility and low input management. With over two million acres, it is considered to be the most common and widely used warm-season perennial grass in the state of Florida. It can be established by planting seed and is used in several applications from pasture and hay production to integrated pest management when used in rotation with annual crops. With projected high fertilizer prices one must wonder if a profit can be established on the investment of fertilizer on pastures. To determine if your pasture would benefit from adding fertilizer the first step should be to pull a soil sample and a tissue analysis.

A soil sample alone is not sufficient to determine bahiagrass phosphorus needs. Based on research performed by Ann Blount, Cheryl Mackowiak, Rao Mylavarapu, Yoana Newman, Maria Silveira, and Joao Vendramini the following fertilizer recommendations have been established for pasture, hay production, and seed production with bahiagrass.

## Established Bahiagrass Pastures

### Low-Nitrogen Option:

Do not use this option if you cut hay since nutrient removal by hay is much greater than by grazing animals. This option results in the lowest cost of purchased fertilizer. Apply 50 to 60 lb N/acre in the early spring. Do not apply K recognizing that N will be the limiting nutrient in this low-cost option. Apply 25 lb P<sub>2</sub>O<sub>5</sub>/acre if your soil tests Very Low or Low in P and tissue P concentration is below 0.15%. Do not apply P if tissue P concentration is at or above 0.15%, even if the soil tests Very Low or Low in P. For Medium and High soil P levels, neither P application nor tissue analysis is recommended since there will be no added benefit of P fertilization on bahiagrass yields.

### Medium-Nitrogen Option:

Apply 100 lb N/acre split into two applications, one in the early spring and one in early summer. Apply 25 lb P<sub>2</sub>O<sub>5</sub>/acre if your soil tests Very Low or Low in P and tissue P concentration is below 0.15%. Do not apply P if tissue P concentration is at or above 0.15%, even if the soil tests Very Low or Low in P. For Medium and High soil P levels, neither

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P application nor tissue analysis is recommended since there will be no added benefit of P fertilization on bahiagrass yields. Apply 50 lb  $K_2O$ /acre if your soil tests Very Low or Low in K and none if it tests Medium or High.

#### Bahiagrass Grown Only for Hay

Apply 80 lb N/acre and 40 lb  $P_2O_5$ /acre if your soil tests Very Low or Low in P and tissue P concentration is below 0.15%. Do not apply P if tissue P concentration is at or above 0.15%, even if the soil tests Very Low or Low in P. For Medium and High soil P levels, neither P application nor tissue analysis is recommended since there will be no added benefit of P fertilization on bahiagrass yields. Apply 80 lb  $K_2O$ /acre if your soil tests Very Low or Low in K and 40 lb  $K_2O$ /acre if it tests Medium.

The fertilization rates suggested in this option are high enough to allow bahiagrass pasture to achieve well above average production. Management and environmental factors will determine how much of the potential production is achieved and how much of the forage is utilized. Apply an additional 80 lb N and 40 lb  $K_2O$ /acre after each cutting, except the last in the fall. Include 20 lb of  $P_2O_5$ /acre after each cutting if the soil tested Very Low or Low in P.

#### Bahiagrass for Seed Production

**If you are planning on grazing apply** 60 to 80 lb N/acre in February or March. At the same time, apply 80 lb  $K_2O$ /acre if your soil tests Very Low or Low in K and 40 lb  $K_2O$ /acre if it tests Medium. Ap-

ply 40 lb  $P_2O_5$ /acre if your soil tests Very Low or Low in P and tissue P concentration is below 0.15%. Graze until May, June, or July, depending on variety. Remove cattle before seed heads start to emerge and apply an additional 60 to 80 lb N/acre.



**If the bahiagrass is not grazed**, do not apply fertilizer in February or March since this may stimulate excessive top growth. Mowing from February to April may be needed to remove excessive top growth. Apply 60 to 80 lb N/A before seed heads first appear. Apply 25 lb  $P_2O_5$ /acre if your soil tests Very Low or Low in P and tissue P concentration is below 0.15%. Do not apply P if tissue P concentration is at or above 0.15%, even if the soil tests Very Low or Low in P. For Medium and High soil P levels, neither P application nor tissue analysis is recommended. Apply 50 lb  $K_2O$ /acre if your soil tests Very Low or Low in K and none if it tests Medium or High. Fertilize Pensacola and Tifton 9 in March/April and fertilize Argentine and Paraguay in May/June.

Source:

Ann Blount "UF Associate Professor, Forage Breeding and Maintenance", Cheryl Mackowiak "UF Assistant Professor", Rao Mylavarapu "UF Associate Professor, Soil and Water Science", Yoana Newman "UF Assistant Professor, Forage Extension", Maria Silveira "UF Assistant Professor", Joao Vendramini "UF Assistant Professor"



## Got Mole Crickets?

David Nistler, Agriculture, Small Farm, Natural Resources Agent, Clay County Extension

This past year Northeast Florida pastures had a significant increase in Mole Cricket damage. While many producers of pastures and hayfields have already acknowledged finding forage damage it reasonable to think that other producers have yet to understand the reasoning behind their forage losses. The object of this article is to inform producers about Mole Crickets as well as help identify possible Mole Cricket damage to forage crops.

Mole crickets have grayish-brown, velvety bodies and broad, spade-like front legs adapted for digging. They have large beady eyes and are 1 to 1-1/4 inches long when fully grown. Adult mole crickets have wings and are attracted to lights at night. Immature mole crickets (nymphs) resemble the adults except they are smaller and lack fully developed wings. Mole Crickets feed on Hybrid Bermudagrass, Common Bermudagrass, Bahiagrass.

Three species of mole crickets were detected in the southeastern U.S. about 1900, and are now serious plant pests. Those species are the tawny mole cricket, *Scapteriscus vicinus*, southern mole cricket, *S. borellii*, and shortwinged mole cricket, *S. abbreviatus*. Other, non-damaging mole crickets occur in North America but these three are the most damaging.

The southern mole cricket feeds on a variety of organisms in the soil and causes mainly tunneling damage. As mole crickets tunnel through the soil, they uproot grass plants, which dry out and die.

**Southern mole crickets** are usually gray with white spots or mottling on the top of the area behind the head. Their digging claws have a U-shaped space between them. Southern mole crickets are predators in the soil.

**Tawny mole crickets** are plant feeders as well as tunnelers. Their feeding damage can result in sudden, severe turf loss during late summer and fall. Tawny mole crickets are usually tan rather than gray. There is a V-shaped space between their digging claws.

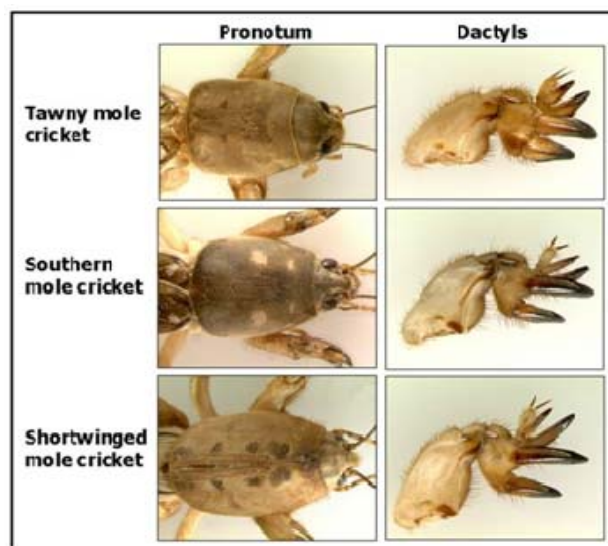
Mole crickets spend the winter in deep burrows in the soil. When the soil warms in the spring and night temperatures approach 60 degrees F, mole

crickets move up to feed on grass. Feeding occurs primarily at night in the upper 1 inch of the soil.

Mole crickets also forage on the soil surface when night temperatures are warm and the soil is moist. Activity increases in the spring, and adults fly and mate. Female mole crickets lay eggs in chambers beneath the soil surface in spring and early summer. The eggs begin hatching during May and early June. Nymphs feed and develop during the summer. There is one generation a year, although egg laying and hatching may be spread out over several weeks. Nymph damage to grass is usually obvious by mid- to late July. By this time, the nymphs are large enough to cause noticeable feeding and tunneling damage. Many mole crickets reach maturity by fall and fly again.

Additional information on Mole Crickets, including their control and scouting techniques' can be found here:

- Pest Mole Cricket Management -<http://edis.ifas.ufl.edu/lh039>
- Timing the Application of Beneficial Nematodes to Mole Cricket Activity on Pasture to Optimize Control-<http://edis.ifas.ufl.edu/in413>
- Mole Cricket Control for Ranchers -[http://entomology.ifas.ufl.edu/fasulo/molecrickets/mcricket\\_for\\_ranchers.htm](http://entomology.ifas.ufl.edu/fasulo/molecrickets/mcricket_for_ranchers.htm)



## Fire Ant Control

Steve Gaul, Agriculture, Natural Resources Agent, Nassau County Extension

Red imported fire ants are an invasive species that was brought in from South America in the 1930's. They have been spreading and causing economic damage to farms and homeowners ever since. In the agriculture setting they are responsible for reducing crop production and injuring livestock. When disturbed, fire ants emerge aggressively and sting their victims usually leaving a white pustule on the skin.

Complete eradication is impossible but there are several options for reducing their impact. Insecticides have different modes of action. Some are formulated as broadcast baits that foraging ants take back to the mound where the insecticide is shared with other ants. It usually takes longer to see results with bait products. Other formulations are designed to kill ants on contact or to use to drench the ant mounds.. These chemicals act more quickly but may not control as many ants. The best and most economical option is to treat in two steps. First, broadcast the bait products over the pastures and follow up with spot treatments of remaining active mounds three to four weeks later.

There are several insecticides approved for application on agricultural lands. These include Extinguish, AmdroPro, and Esteem. Most of these la-

bels require the application of 1.5 pounds per acre twice a year while ants are actively foraging. Again, these are bait products and results will take several weeks to appear. It is not recommended to apply these products with a fertilizer because it will degrade the ingredients of the insecticidal baits.

Contact insecticides for mound treatments include fipronil, carbaryl and pyrethroids. Mound treatment alone can be expensive and often times several mounds can be missed. There is also a line of products that are more environmentally friendly that include the active ingredient spinosad.



The USDA is conducting research on the phorid fly as a possible biological control agent for controlling fire ants. However, this research is in the beginning stages. We may be years away from any type of control these flies may provide. Some biological control agents that have been marketed include predaceous mites and parasitic nematodes. Scientific studies are being conducted to evaluate the effectiveness of some of these natural enemies, but others remain untested or have not been shown to be highly effective.



## Beef Management Calendar

### APRIL

- Plant warm season annual pastures.
- Plant corn for silage.
- Check and fill mineral feeder.
- Check dust bags or apply treated ear tags.
- Check for external parasites and treat if necessary.
- Observe cows for repeat breeders.
- Deworm cows as needed if not done in March.
- Vaccinate against blackleg and brucellosis after 3 months of age and before 12 months of age.
- Market cull cows and bulls.
- Update market information and refine market strategy for calves.

### MAY

- Remove bulls.
- Harvest hay from cool season crops.
- Plant warm season perennial pastures.
- Fertilize warm season pastures.
- Check mineral feeder.
- Check for spittlebugs and treat if necessary.
- Apply spot-on agents for grub and louse control.
- Check dust bags.
- Vaccinate and implant with growth stimulant any later calves.
- Reimplant calves with growth stimulant at 90-120 days, when you have herd penned.
- Dispose of dead animals properly.
- Update market information and refine marketing plans.

### JUNE

- Last date for planting sorghum.
- Check mineral feeder, use at least 8% phosphorus in mineral and not over 2 ½ to 1 calcium to phosphorus ratio.
- Check pastures and hay field for spittlebugs, mole crickets, and army worms.
- Treat if necessary; best month for mole cricket control.
- Check dust bags.
- Watch for evidence of pinkeye and treat.
- Utilize available veterinary services and diagnostic laboratories.
- Get heifers vaccinated for brucellosis if not already done.
- Pregnancy check cows.
- Update market information and plans.
- Make first cutting of hay.
- Put bulls out June 1 for calves starting March 11.
- Reimplant calves at 90 to 120 days with growth stimulant.

### JULY

- Cut corn silage.
- Control weeds in summer pastures.
- Apply nitrogen to warm season pastures, if needed.
- Check mineral feeder.
- Check for army worms and mole crickets, and treat if necessary.
- Wean calves and cull cow herd.
- Watch for evidence of foot-rot and treat.
- Consider preconditioning calves before sale including vaccination for shipping fever and IBR at least 3 weeks before sale.
- Check dust bags.
- Update market information and plans.
- Revaccinate calves at weaning for blackleg.



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