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PASTURE MANAGEMENT

Target pH for Bahiagrass

The updated recommendation and target pH for bahiagrass production is now 5.5 or higher. Liming should be recommended if soil pH test is at 5.3 or lower, in which case a lime test should be conducted. If the lime test calls for a lime application apply it 3 to 6 months before the growing season comes into play. Soils should be tested for pH every 2-3 years.

Forage Growth and Stubble Height

Different grasses have different growth forms. Some are sod types, like bahiagrass. They store the energy reserves in thick rhizomes or underground stems right under the soil level. In these sod-type (decumbent) grasses, tillers grow through the leaf sheath to form a sod that creeps or spreads with further development of rhizomes and stolons, common in bermudagrass and lipograss. In addition, the growing points are low allowing the plant to be persistent under close grazing or defoliation.

Nevertheless, within sod type grasses, there are variations. Some will grow more upright than others (limpograss > stargrass and T-85 bermudagrass >coastal bermudagrass > bahiagrass). This is the order to follow when managing the stubble height: higher for limpograss compared to stargrass or Tifton 85, higher in stargrass and Tifton 85 compared to coastal, and higher in coastal compared to bahiagrass. In some cases, within a grass, there will be differences among cultivars. For example, Tifton 9 has a more upright growth than Pensacola or Argentine bahiagrass. Or in the case of perennial peanut, Arbrook has a more upright growth than Florigraze. The cultivars with more upright growth are less tolerant of closer defoliation. This table on the right shows the minimum stubble height recommended for the main forage plants in Florida based on use.

More information on forage management can be found at the [Forages of Florida](http://foragesofFlorida.com) website.

Bahiagrass: Protocol For Submitting A Plant Tissue Sample

The new bahiagrass Phosphorus recommendations are **now based on tissue and soil tests**. If your soil Phosphorus (P) test results are Medium or High, (16 ppm and above) there is no need for Tissue testing, and there will not be any recommendation to apply P. Soil P that is medium or high shows that there is sufficient P present in the soil.

The Tissue Phosphorus test is only needed when your soil Phosphorus test results are Low or Very Low (15 ppm and below).

Below are the different analysis that can be requested and the instructions provided by the analytical lab on how to submit a plant tissue sample.

The IFAS Analytical Services Laboratory has a new **Bahia Producer Soil Test Submission Form** that can be found at <http://soilslab.ifas.ufl.edu/>

How To Take, Prepare, and Submit Plant Tissue Samples (for Analysis B1)

1. Ensure that each sample contains at least a generous handful of plant material (around half a gallon).
2. Do not sample leaves contaminated with soil or sprays. If all tissue is dusty or spray contaminated, wash leaves gently with flowing distilled water.
3. Do not sample disease-, insect-, or mechanically damaged plant tissue.
4. Place tissue samples directly into a clean paper or cloth bag or envelope. Do not use plastic containers. If the plant tissue is wet or succulent, allow plant material to air dry for at least one day, before mailing.
5. When sampling suspected nutrient-deficient plants, two samples are recommended; one sample from normal plants, and another sample from abnormal plants.
6. When sampling, the plant part and plant maturity are important factors. Be sure to collect the proper plant part at the recommended time. A general rule of thumb is to sample the youngest, fully mature leaves during the growth cycle, or just prior to fruit set.
7. Please do not provide any roots along with the sample.

Analysis Test Code	Analysis Name	Determinations Made	Analysis Cost
B1	Standard Soil and Tissue Test	pH, lime requirement, P, K, Ca, Mg	\$15.00
1	Standard Soil Test	pH, lime requirement, K, Ca, Mg and P test value only	\$7.00
2	pH and Lime Requirement	pH and lime requirement	\$3.00
3	Micronutrient Test	Cu, Mn, Zn	\$5.00

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WEED CONTROL

Palmer Amaranth

Palmer amaranth is becoming an increasingly common and troublesome weed in the southeast. With its rapid growth rate and enormous capacity to produce seed, this weed can go from limited to severe infestation in one or two seasons.

Several herbicides have activity on Palmer amaranth, but season-long control can still be tricky. The millions of seeds produced will germinate throughout the entire growing season. It has been observed that, “a new flush of seedlings will come after every rainfall.” But generally speaking, Cadre is highly effective, easy to apply, controls small and large plants alike. However, every year brings new reports of Palmer amaranth resistance to Cadre. With the loss of Cadre, we will be forced to rely on preemergence herbicides such as Valor and Dual Magnum or early postemergence contact herbicides such as Cobra or Ultra Blazer. Though Cobra and Ultra Blazer are effective options, they must be applied to Palmer amaranth that is approximately 2 inches in height for reliable control. Considering that these herbicides have no residual activity, and must be applied within a narrow window of effectiveness, it is imperative that we



Virginia Tech Weed ID Guide

document which preemergence herbicides are most effective. Additionally, we also need to understand approximately how long each of the preemergence herbicides will likely last so we can better plan our postemergence application. The herbicides listed in *Table 1* were all applied the day after peanut planting.

After the applications were made, we visited the treated areas weekly and counted how many weeds were present in each plot. We considered that each herbicide had lost its effectiveness when the Palmer amaranth population reached 1 plant per 3 feet of peanut row. We set this threshold since that is when we considered that a postemergence herbicide application would be necessary. We found that the effectiveness of different preemergence herbicides on Palmer Amaranth control can vary greatly. Prowl H2O and Solicam were the least effective with control ranging between just a few days and approximately 1 week. Dual Magnum was better with 3 to 4 weeks of control, but Valor provided control for up to 2 months. We also found that the rye cover crop at

this location did little to suppress Palmer amaranth growth. However, the rye at this location was relatively thin. Other research has shown that dense rye cover can greatly enhance weed control. Prowl H2O is highly effective on annual grasses, Florida pusley, and many of the pigweed species. However, we have observed over the past several years that it is largely ineffective against Palmer amaranth. Therefore, if Prowl H2O is the only preemergence herbicide in the program, plan to treat for Palmer amaranth escapes within the first week after planting. Conversely, Valor will generally provide excellent preemergence control, while also being somewhat cheaper to apply than Dual Magnum. But for all preemergence herbicides it is important to remember that rainfall or irrigation within 7 to 10 days after application is essential to acti-

vate the herbicide. We had excellent incorporation at this location, but prolonged drought will likely result in each of these products totally failing to control Palmer amaranth.

Table 1. Length of time each herbicide provided satisfactory control of Palmer amaranth. Duration of Palmer Amaranth Control* (in days)

Herbicide	Rate	Rye cover	No cover
Prowl H2O	2 pt/A	4	2
Solicam	1.5 lb/A	11	8
Dual Magnum	1.33 pt/A	20	28
Valor	3 oz/A	60	>60
None		2	1

*Duration of control refers to the length of time (in days) that each herbicide held Palmer amaranth populations below 1 plant per 3 feet of row.

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LIVESTOCK and NATURAL RESOURCES

Curly Calf Syndrome

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“Curly Calf Syndrome” is a genetic defect that has raised some concern in the Angus breed recently. “Curly Calf” is the common name for Arthrogyrosis Multiplex (AM). Affected calves are born dead with a bent or twisted spine and legs are often straight and rigid. The name “curly calf syndrome” comes from the twisted appearance of the calf.

All indications are that “curly calf” is caused by a recessive gene. For a calf to be affected, both parents must be carriers of the recessive gene. A carrier will be normal in appearance. If A = Normal gene and a = recessive curly calve gene; a cow or bull with the following genotypes will be:

AA = Normal

Aa = Carrier (normal in appearance)

aa = Curly Calf

To get a calf with curly calf syndrome you must breed a carrier bull (Aa) to a carrier cow (Aa). Half the sperm cells produced by a carrier bull will have the normal allele (A) and half will have the curly calf allele (a). Half of the eggs produced by carrier cow would have the normal allele (A) and half would have the curly calf allele (a). When you mate carriers the probabilities are:

25% - AA = Normal

50% - Aa = carrier with normal appearance

25% - aa = curly calf syndrome

If a calf is born with curly calf syndrome, both the sire and dam must be carriers of the defective gene (a). More information about this condition can be found at the American angus association webpage. http://www.angus.org/ccs_info.html

UF Beef Cattle Short Course

The 58th annual Beef Cattle Short Course will be held April 29 through May 1 at the Hilton University of Florida Conference Center. The course will focus on cash, cows, and calves. For more information and registration, <http://animal.ifas.ufl.edu/extension/beef/short.shtml>

Farm Bureau DOT Regulation for Agricultural Producers Seminar

Columbia County Farm Bureau will hold a seminar to discuss the current regulations pertaining to highway safety and the moving of farm equipment and farm products over our state road system. The seminar will be held at the Columbia County Fairgrounds on April 30 at 6PM. Due to the generosity of our co-sponsors, Hunter Oil Co., Tri County Irrigation, and the surrounding county Farm Bureaus a meal will be served. Please RSVP to Columbia County Farm Bureau at 386-752-4003 by April 27.

Cow/Calf BMP Kickoff Seminar

The Florida Department of Agriculture and Consumer Services, in cooperation with the Florida Cattlemen's Association, and the University of Florida / IFAS, have scheduled a kickoff video-conference to formally introduce the recently adopted cow/calf best management practices manual. The seminar will be held at the Columbia County Extension office on May 14 at 6:30 pm.

UF/IFAS CEU Day

An opportunity to earn pesticide applicator CEUs is planned for Tuesday, April 21 at the Columbia County Extension office. Plan to join us for earning CEUs the easy way rather than re-testing.

FDACS—Approved CEUs

Private: 4.5

Ag Row Crop: 2

Ag Tree Crop: 3

Demo & Research: 4.5

Managing Florida Ponds for Fishing

Largemouth bass, bluegill (commonly called sunfish or bream), and channel catfish are the most commonly stocked species in Florida ponds. When properly managed, these species can provide excellent fishing.

The largemouth bass is a predatory species and requires large numbers of small fish as prey to maintain good growth. Many pond owners are reluctant to stock bluegill into their ponds because of their tendency to overpopulate and stunt, however, when stocked in conjunction with bass and properly fished, this species provides food for the bass and a fine sport fish for the angler. Without bluegill or other suitable prey species, a quality bass fishery will not develop. The channel catfish is both a popular food and sport fish in Florida. This species should be stocked alone in ponds smaller than one-half acre or in ponds that are muddy throughout the

year. In larger ponds, catfish do well when stocked alone or with bass and bluegill. The redear sunfish, commonly called the shellcracker, can also be stocked as a prey species for bass and as a sport fish for the angler. This species should not be stocked alone or comprise more than 30% of the initial stocking of sunfish (bluegill and redear sunfish) because it will not produce enough offspring to sustain the bass population.

New or reclaimed ponds are normally stocked with small (1- to 4-inch) fish, called fingerlings. These small fish will produce harvestable populations in one to two years. Care must be taken to make sure that wild fish are not present in the pond, or the newly stocked small fish may be eaten.

It is critical that the correct number of each species of fish is stocked. Improper stocking rates may prevent a pond from producing a quality fishery. In Florida, 100 bass and 500 bluegill fingerlings are normally stocked per acre. Catfish can be stocked at 100 per acre, along with the bass and bluegill or by themselves in catfish-only ponds. If the catfish are to be fed, then higher stocking rates of catfish can be used. If larger fish are stocked, fewer fish are required. Stocking rates of fifty 8- to 12-inch bass, two hundred 4- to 5-inch bluegill, and fifty to one hundred 8- to 12-inch catfish should be used.

Bluegill and catfish are normally stocked in the fall, and bass are stocked the following spring. Stocking bluegill in the fall will allow them to spawn, providing the small bass with a forage base. Catfish are stocked in the fall to allow them to grow large enough so that the bass will not be able to eat them. Stocking a pond in mid-summer should be avoided. High water temperatures and low dissolved oxygen may weaken fish being transported. Sudden temperature changes can cause fish to go into shock and die.

More information can be found at <http://edis.ifas.ufl.edu/FA001>

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PROGRAMS

Calendar Dates

<u>DATE</u>	<u>PROGRAM</u>	<u>LOCATION</u>	<u>TIME</u>
April 17	<u>Goat Field Day</u>	FAMU	8:30 am
April 18	Livestock Judging Seminar	Heart of FL Farms Alachua	9:30 am
April 21	UF/IFAS CEU Day	Columbia Co Extension	9:30 am
April 24-25 and May 1-2	<u>Master Goat Program</u>	Crowley Museum Sarasota	8:00 am
April 28	Horse Management	Suwannee Co Extension	4:00 pm
April 29- May 1	<u>UF Beef Short Course</u>	Hilton @ UF	11:00 am
April 30	DOT Regulation Seminar	Columbia Co Fairgrounds	6:00 pm