June 6, 2008

Dear Producers,

As a group of extension agents, we hope that the information that we offer in this newsletter will be educational to you and assist you in your forage management decisions this summer. If you have any questions about your pastures or livestock, please feel free to contact your local extension agent.

I also want to invite you to the “Horsin’ Around...” Educational Program that will be held at the Equestrian Center in Jacksonville, FL. This program will offer sessions for adults and youth.

The 11th Annual Hay and Farm Field Day will be held August 28, 2008 at WW Ranch in West Jacksonville. Look for more information about the hay field day in this newsletter.

Mark your calendars and plan to join us!

Sincerely,

Elena M. Toro
Chairman, North Florida Beef & Forage Group

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**Back to the Basics**

The skyrocketing prices of agricultural inputs require ranchers to become more efficient or risk significant money loss. The base of the system in Florida is forage and as you all know; if you are a cattleman you are also a grass farmer.

As grass farmers we need to do a better job of producing pounds of beef on the forage systems we are on and become less dependent on grain feeding and supplementation from an economic perspective. It is time for a back to the basics approach. The basics of our cow-calf operations are nutrition – plant nutrition and animal nutrition. There are two ways to monitor these basics for profitability and they are soil and forage testing.

In order to get the bang for your fertilizer dollar you should soil test.

Soil tests provide us with a picture of the nutrients available in the soil. The quantity of the nutrients in the sample determines how much nitrogen, phosphorous and potassium needs to be applied in order to meet growth requirements. A soil test will save money and conserve energy by applying only the amount of nutrients needed for growth of your grass. Buy nutrients,
HORSIN’ AROUND...

An Educational Seminar for Youth and Adults

JULY 31st, 2008
JACKSONVILLE EQUESTRIAN CENTER
13611 Normandy Boulevard
Jacksonville, FL 32221

Program

5:30- 6:00 pm   Registration
6:00-6:30 pm   Welcome and Dinner

GENERAL SESSION

6:30 pm   Stretching your Hay Supply.
7:30 pm   Emergency Preparedness for Horses
8:00 pm   Youth and Adults— Two Groups

YOUTH

8:00 pm   Guide to Basic Vet Care e.g. signs and symptoms. (Dawn McLane, DVM)
8:30 pm   What does it take to be at the top of your sport? (Roundtable discussion with local world class riders)

ADULT

8:00 pm   Composting 101
8:30 pm   Riding Trails of Florida (Division of Forestry)
9:15 pm   Adjourn

If you plan to attend this program or need directions please call Brad Burbaugh at the Duval County Extension Office at 904-387-8850 or your local agent in Northeast Florida before July 28, 2008.

Program organized by UF/IFAS Northeast Florida Beef and Forage Group
Using Livestock Wastes to Reduce Commercial Fertilizer

I. Using livestock wastes to reduce commercial fertilizer on your pasture: Broiler litter example on Bahiagrass pasture.

The first thing you need to do is have a sample of the broiler litter analyzed by either a private lab or the UF Livestock Waste Testing Lab for nitrogen, phosphorous and potash content.

The second thing you need to do is to take a soil sample and have the UF Extension Soil Test Lab run an analysis on it. Once you have those two samples, you can calculate how much broiler litter to apply per acre for the Spring grazing season. Our concern is that phosphorous may build up in the soil from repeated, high levels of broiler litter application. However, broiler litter could be used as the early Spring fertilizer application followed by supplemental Nitrogen fertilizer application, as needed in the season.

An example follows for a Bahiagrass pasture:

Given - Soil test levels showing Potash in the medium to low range;

Given – Livestock Waste Lab analysis shows broiler litter Nitrogen was 60 pounds per ton, Phosphorous was 50 pounds per ton, and Potash was 50 pounds per ton.

- **For maintenance of the pasture** (low Nitrogen option) you would be adequate if you would apply one ton of this broiler litter per acre in the early Spring.

- **For medium grass production of the pasture** (medium Nitrogen option of a total of 100 pounds Nitrogen/acre for the season) in addition to one ton broiler litter per acre, you would have to apply an additional 40 pounds of Nitrogen fertilizer per acre. Rates this low (40 pounds of Nitrogen fertilizer per acre) could be applied as a liquid Nitrogen formulation with the Spring broadleaf weed herbicide (if needed).

- **For high grass production of the pasture** (high Nitrogen option of split applications of 80 pounds Nitrogen/acre in the early Spring followed by another 80 pounds Nitrogen/acre in the early Summer) you could apply 1 and 1/3 tons of broiler/acre in the early Spring, followed by a commercial Nitrogen fertilizer application in early Summer of 80 pounds of actual Nitrogen/acre.

II. Using livestock wastes to reduce commercial fertilizer on your pasture: Broiler litter example on Bermudagrass hayfield.

An example follows for a Bermuda-grass hay field (which would remove phosphorous and potash in the hay cuttings):

Given - Soil test levels showing Potash in the medium to low range;

Given – Livestock Waste Lab analysis shows broiler litter Nitrogen was 60 pounds per ton, Phosphorous was 50 pounds per ton, and Potash was 50 pounds per ton.

- **The early Spring base application** could be 1 and 1/3 tons of broiler litter/acre in the early Spring.

- **After each cutting of hay** (except after the last cutting) you could apply 80 pounds actual Nitrogen and 40 pounds of actual Potash per acre, formulated as a commercial fertilizer. (For example, applying 400 pounds per acre of a 20-0-10 analysis fertilizer would supply the recommended 80 pounds actual Nitrogen and 40 pounds of actual Potash per acre)

Dr. Jacque Breman
Union County Extension
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Sprayer Calibration

Sprayer calibration is a common task faced by many farmers and ranchers. Due to rising fuel and pesticide costs it is important to be as efficient as possible when applying herbicides. These steps will provide a quick and accurate way to calibrate most sprayer systems.

**Step 1: Nozzle catch test**

The first step in sprayer calibration is the nozzle catch test. This is done by collecting the amount of spray solution from all nozzles for 15 seconds.

For example: If your ATV boom sprayer has 7 nozzles catch the output from one nozzle for 15 seconds. Let’s say after 15 seconds the total output from the spray nozzle was 6.43 oz. Since 15 seconds is ¼ minute, multiply 6.43 oz × 4 to get ounces per minute. You would get 25.7 oz per minute. However, you need **gallons per minute (GPM)**. To get GPM divide 25.7 oz by 128 since there are 128 oz in 1 gallon. Dividing 25.7 oz by 128 results in GPM of 0.2 It is also important to check the uniformity of each nozzle before spraying. No nozzle should vary more than +/- 10%. For example, for a GPM of 0.2 any nozzle that outputs above 0.22 GPM or below 0.18 GPM should be replaced.

**Step 2: Determining speed**

There is an easy formula for determining your speed in miles per hour (MPH).

\[
\text{MPH} = \frac{\text{Distance traveled (in feet) \times 60}}{\text{Time (seconds) to travel distance} \times 88}
\]

For example: Using a tape measure or a measuring wheel lay out a determined distance. (The distance can be any length.) Then using a stop watch determine the time it takes you to cover the distance. For example, let’s say it takes you 11.4 seconds to drive 50 ft on your ATV. Using the above formula, your speed would be:

\[
3.0 \text{ MPH} = \frac{50 \text{ ft} \times 60}{11.4 \text{ sec} \times 88}
\]

**Step 3: Determine Sprayer Swath**

This step is the easiest. If you have a single nozzle sprayer, measure the spray swath as you go back and forth.

For example, you determine your spray swath to be 12 feet. Convert feet into inches by multiplying by 12 and you get a swath of 144 inches. **Make sure**
Warm Season Forage Legumes

There are several advantages to planting summer legumes in your pasture. The addition of this forage will increase the tonnage of forage produced per acre. It will also improve forage quality for grazing or hay production because legumes tend to be higher in protein content. Another added benefit of using legumes to supplement your forage production is that they are able to fix nitrogen into the soil.

As the cost of fertilizer continues to soar, anything that reduces the input costs to one’s operation should be considered. It is not too late to establish some summer legumes. In fact, they can be planted through the end of June when hopefully the summer rains will start.

Legume seeds must be inoculated with nitrogen fixing bacteria before planting. Inoculants are plant specific and the seed dealer should be able to match them up for you. Treated seed needs to be planted as quickly as possible to avoid excess exposure to sunlight. Soil pH should be around 5.5-6.0 so add lime as recommended by soil test results.

Seeds can either be planted on prepared soil or in an existing pasture that has been lightly disked. Once established, legume pastures should be ac-

(Continued on page 6)
There are several different crops that can be utilized for forage. (Continued from page 5)

tively managed. Delay grazing until plants are at least 6” tall. Ideally a rotational grazing system should be established. This allows plants to mature and reseed the pasture for the next season. Limiting the amount of time livestock is allowed in the pasture or creep feeding can also be used to maintain the productivity of the warm season legumes. These crops can be used for hay. However, weather can be problematic so other options might be considered such as silage and green chop.

There are several different crops that can be utilized for forage. **Perennial Peanut** makes an excellent forage, especially on well drained sites. It is difficult to establish since it must be sprigged into a clean seedbed. It has the ability to produce 3-6 tons of forage per year.

**Alyceclover** is a fairly tall legume that can be over-seeded on well drained soils. Protein content is 15% and it is palatable to most livestock.

**Aeschynomene** is a coarse stemmed forage legume that is well adapted to poorly drained soils. It grows to a height of 3 feet and has a protein content of 20%.

**Cowpeas, Soybeans, Phasey beans and Beggarweed** can also be utilized in summer pastures. Summer forage legumes provide an excellent alternative to traditional feed sources.

Steve Gaul
Nassau County Extension
sgaul@ufl.edu

(Adapted from Warm Season Forage Legume Guide, SS-AGR-48, Y. C. Newman.)

<table>
<thead>
<tr>
<th>Forage Crops Planted from Seed</th>
<th>Planting Dates</th>
<th>Seeding Rates</th>
<th>Planting Depths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyceclover</td>
<td>Apr 15 - Jun 30</td>
<td>12 - 15</td>
<td>1/4 - 1/2&quot;</td>
</tr>
<tr>
<td>Aeschynomene</td>
<td>Mar 30 - Jun 30</td>
<td>6 - 8 (dehulled)</td>
<td>1/4 - 1/2&quot;</td>
</tr>
<tr>
<td>Cowpea</td>
<td>Apr 1 - Jul 31</td>
<td>100 - 120 (60 - 90)</td>
<td>1 - 3&quot;</td>
</tr>
<tr>
<td>Desmodium, Florida carpon</td>
<td>Mar 30 - Jun 30</td>
<td>3 - 5</td>
<td>1/4 - 1/2&quot;</td>
</tr>
<tr>
<td>Indigo, hairy</td>
<td>Apr 1 - Jun 30</td>
<td>6 - 8</td>
<td>1/4 - 1/2&quot;</td>
</tr>
<tr>
<td>Perennial Peanut</td>
<td>Jan 15 - Mar 15 (or July)</td>
<td>80+ bu (of rhizomes)</td>
<td>2&quot;</td>
</tr>
<tr>
<td>Phasey bean</td>
<td>Mar 30 - Jun 30</td>
<td>10 - 12</td>
<td>1/4 - 1/2&quot;</td>
</tr>
<tr>
<td>Stylo</td>
<td>Feb 15 - Jun 30</td>
<td>10 - 12</td>
<td>1/4 - 1/2&quot;</td>
</tr>
</tbody>
</table>

1 Always check seed quality (% germination, dormancy, weed seed, other crop seed, and trash). Seed germination should be 80% or higher for best results.
2 Seeding rates: lb/A broadcast
3 Seeding rate: lb/A when planted in rows 30 to 36" wide, instead of broadcast
**Northeast Florida Beef and Forage Group**

**11th Annual Hay & Farm Field Day**

**August 28, 2008**

**WW Ranch**

Jacksonville, FL

Registration Fee: $5.00 Per person*

To register contact your local county agent in Northeast Florida or Elena Toro at (386)362-6447 before August 22, 2008.

*Includes refreshments, lunch and packets

**WW Ranch - Driving Directions**

Take 301 into Baldwin. Turn onto 90 Eastbound - Take 90 East approximately 5 miles to Otis Road. Turn left and follow approximately 2 miles. You will see a big sign with WW on it. Turn right down the dirt road. Follow the road and you will see barns on the left.

**Session Topics**

- Efficient Use of Alternative Sources of Fertilizers
- Using a Grazing Stick to Improve Beef Cattle Nutrition Programs
- Sprayer Calibration
- Hay Quality Parameters
- Establishment of Perennial Peanut in Pastures and Hay Fields
- Herbicide Update: New Products & Fall Weed Control
- Storing Hay Properly to Minimize Losses

*CEU’S &CCA’s will be available*

**Program**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:15-9:30 am</td>
<td>Registration</td>
</tr>
<tr>
<td>8:30-9:15 am</td>
<td>Farm Tour (Optional)</td>
</tr>
<tr>
<td>9:15-9:30 am</td>
<td>Welcome and Introductions</td>
</tr>
<tr>
<td></td>
<td>Elena Toro, NFBFG Chair</td>
</tr>
<tr>
<td>9:30-9:55 am</td>
<td>Session 1</td>
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<tr>
<td>10:00-10:25 am</td>
<td>Session 2</td>
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<tr>
<td>10:30-10:55 am</td>
<td>Session 3</td>
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<tr>
<td>11:00-11:25 am</td>
<td>Session 4</td>
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<tr>
<td>11:30-11:55 am</td>
<td>Session 5</td>
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<tr>
<td>12:00-12:45 pm</td>
<td>Lunch</td>
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<tr>
<td>1:00-3:00 pm</td>
<td>Field Demonstrations</td>
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<tr>
<td>3:00 pm</td>
<td>Adjourn</td>
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MARK YOUR CALENDERS!

July 31st, 2008, “Horsin’ Around...” an Equine Educational Seminar for Adults and Youth at the Jacksonville Equestrian Center
- See Inside for Details

August 28th, 2008, 11th Annual Regional Hay & Farm Field Day at WW Ranch - See Inside for Details

Extension programs are open to all people regardless of race, color, age, sex, handicap, or national origin. In accordance with the Americans with Disabilities Act, any person needing a special accommodation to participate in any activity, should contact the Baker County Cooperative Extension Service at 1025 West Macclenny Avenue, Macclenny, FL 32063 or telephone (904) 259-3520 no later than seven (7) days prior to the event. Hearing impaired persons can access the foregoing telephone by contacting the Florida Relay Service at 1-800-955-8770 (voice) or 1-800-955-8771 (TDD).