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Columbia County Extension at <http://columbia.ifas.ufl.edu/>**PASTURE MANAGEMENT****Pearl Millet**

Pearl Millet produces high quality forage for growing or lactating animals. It is adapted to well drained soils with pH from 5.5 to 7.0. When to plant it? In May if you get a break from dry conditions and while you have some moisture, or as soon as soil moisture conditions are right; the window for planting goes from mid March to June, and the production season is June through September depending on when you planted . Seeding rates recommended are 12 to 15 lbs/acre if planted in rows, or 30 to 40 lbs/acre if broadcasting the seed. Apply 30 lb N/A, 50% of the K₂O, and all of the P₂O₅ fertilizer recommended, from the soil test recommendation, in a pre-plant or at-planting application. Apply 50 lb N/A and the remaining K₂O after the first grazing period. Apply an additional 50 lb N/A after each subsequent grazing period. Graze when the forage is 14 to 24 inches tall, and stop when the stubble is at 6 to 8 inches. Check with your county agent for assistance with soil test or how to locate the seed.

Aeschynomene and Alyceclover – two good summer legume options

Aeschynomene and Alyceclover are two well adapted warm-season legumes that are grown all throughout Florida. They can be grown on a prepared seedbed or over seeded into your warm-season pastures. However, their adaptation to soil drainage is very different. Let's look first at Aeschynomene americana or American jointvetch or deervetch, as is commonly known. Aeschynomene is very palatable to cattle and deer, and adapts wells to flatwood soils that are poorly drained. It is mainly recommended for grazing (not recommended for hay) and the season of growth goes from April to November. Soil moisture is critical for this legume, and seeding rates are 5-7 lbs per acre when using hulled seed or 10-15 lbs per acre when seeding with intact seed where the hulls are still present. Planting of hulled seeds should be done early;

this year planting can be done as soon as May depending on weather conditions. If using de-hulled seeds, planting can be done in June. If planting is delayed past the middle of June, the amount of grazing time is reduced due to the delayed development of the Aeschynomene. Seedlings that emerge after initial rains in May, may not survive if drought condition comes back and is longer than 7-10 days after seedlings emerge.

Alyceclover, on the other hand, is adapted to moist soils that are well drained. It can be used for grazing and hay. If used for grazing, do so only if rotationally grazing because it is not as grazing tolerant as Aeschynomene. When used as hay, it makes high quality hay; Alyceclover may be a good option for dairymen in need of additional forage in late summer and early fall. The season of growth for Alyceclover goes from May through September and seeding rate is 15 lbs per acre. One issue about Alyceclover, is that it is susceptible to root nematodes (the peanut root-knot nematode, and the southern root-knot nematode). You should expect some stunting due to nematode damage to the root if the field that you are planning to plant has a history of vegetable crops (particularly those in the cucurbit family like cucumber, melon, squash, etc) as these crops attract or build up the nematodes in the soil.

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Nitrogen Loss from Urea

There are many thoughts regarding how much nitrogen is lost from applying urea on pastures and hay fields. If applied incorrectly, up to 40 percent of the nitrogen applied as urea can be volatilized (vaporized) and lost as a gas. If applied correctly, little, if any, nitrogen will be lost. Obviously, the key is to apply the urea correctly.

To go in reverse order, let's look at the worst way to apply urea to pastures. The worst way is to apply urea on the soil surface without incorporating it with tillage or irrigation, have hot temperatures and not have rain within three to four days after application. If you have all these things happen, you can have urea losses of up to 40 percent, but 20 percent losses are more common. A key to remember is that ALL three things have to happen for the urea losses to occur. If you till in the urea within three to four days, or irrigate it into the soil within that time frame, or have rainfall within that time frame, or it is cool (less than 70° F sustained), urea losses will be insignificant.

Urea is lost for the following reason. It reacts with water to form ammonium carbonate. Ammonium carbonate is unstable and breaks down into carbon dioxide and ammonia gas. If the urea is in the ground, the ammonia gas will quickly combine with soil water to form ammonium hydroxide which is stable and not subject to volatilization loss. However, if the urea is on the soil surface when the breakdown occurs, the ammonia gas is lost to the atmosphere.

These losses can be greater if the soil has a high pH or if the soil is wet when the urea is applied. The reason high pH increases the losses is that the ammonium carbonate breakdown reaction is basic and a high pH drives the reaction faster. The reason wet soil makes the losses worse is twofold - one is that applying urea to wet soil insures the pellet dissolves almost in-

is not active in cool weather. That is why urea losses are very small in cool weather and much larger in hot weather. An exact temperature at which urea losses begin to occur is hard to pin down, but it is generally thought that the temperature must be higher than 70° F for a sustained period of time for losses to be severe.

The key to avoiding urea loss is to get the urea into the ground. This can be done by tilling the urea into the soil, irrigating the urea into the soil or getting a rainfall event within three to four days. It is generally thought that .25 inch of rain is sufficient. Heavy dew is not good enough to incorporate the urea into the soil.

In closing, urea is an excellent source of nitrogen if one has an understanding of how to use it (or better yet, an idea of how NOT to use it). Losses can occur if used incorrectly. These losses can be as high as 40 percent, but are generally about 20 percent.

- by Eddie Funderburg

<http://www.noble.org/Ag/Soils/NitrogenLosses/index.html>

WEED CONTROL

Blackberry

Blackberry and dewberry are often viewed simply as nuisance weeds that reduce grazing within a portion of the field. This may not seem that detrimental. However, severe financial losses can occur if cattle are injured by these growing thickets. For example, a bull's reproductive organs can be severely damaged by blackberry or dewberry thorns. Lesions or scratches from the thorns may result in infection or complete loss of reproductive performance. Lactating cows and dairy cows are not safe either. Thorns can scratch and cause infections of the udder, which may result in lower milk production. Therefore, blackberry infestations can result in monetary losses from both reduced grazing and potential animal injury.

Herbicide application timing is important for effective blackberry control. Blackberry is most sensitive to herbicides when blooming in late spring and in the fall prior to frost. Applications made soon after emergence from winter dormancy or during fruiting are generally less effective. It is also important that the plants are not drought-stressed at the time of herbicide application. Therefore, applications made during the spring or summer months, when regular rainfall is common, are often the most effective times to spray.

Herbicides recommended to control blackberry and rate of application.

Remedy Ultra —

apply 2 pt / A when blooming and do not mow within 1 year prior to application

Pasturegard—

apply 4 pt / A when blooming or during the fall

Cimarron—

apply 0.5 oz / A at blooming or late in the fall. DO NOT apply to bahiagrass.

Telar—

Apply 1 oz / A and is similar to Cimarron. Can be applied to bahiagrass.

More information on controlling Blackberry and publication on Weed Management in Pastures

and Rangeland 2009 can be found at: <http://edis.ifas.ufl.edu/WG006> and <http://edis.ifas.ufl.edu/AG238#FIGURE 3>

LIVESTOCK and NATURAL RESOURCES

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 (BMP) Manual on May 14. This will be the official launch of the industry's BMP program. The meeting will provide producers with key information on the use of the manual, enrollment process, soil testing, and forage production as it relates to water quality protection. This is a very important program, given the vast number of acres of rangeland in Florida. Producers are encouraged to make every effort to attend. The seminar will be held at the Columbia County Extension office on May 14 at 6:30 pm. [BMP Manual](#)

FL Meat Goat Association

FMGA will have their Spring Conference in Live Oak on May 16th. There will be 11 presentations and the semi-annual meeting will be held also. To get a copy of the agenda and registration form, email tranquilityhills@hotmail.com. Put May 16 in the subject line.

Vaccinate Now To Help Prevent EEE, WNV

Florida horse owners are urged to vaccinate their animals for mosquito-borne diseases. Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV) are the two major equine diseases animal health officials are concerned about. Heavy rain and flooding have left standing water in North Florida, providing breeding grounds for mosquitoes that carry the diseases. [More information](#).

Beef Management Calendar

Spring—Calving

- Observe performance of bulls during breeding season
- Maintain salt-mineral feeders
- Remove Bull May 21 to end calving season March 1

Fall—Calving

- Pregnancy test cows if not previously done
- Weaned calves can be conditioned by feeding a complete dry ration for a short period of time after vaccinating, deworming, and implanting*

* do not use if raising "no growth hormones added" beef

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PROGRAMS

Calendar Dates

<u>DATE</u>	<u>PROGRAM</u>	<u>LOCATION</u>	<u>TIME</u>
May 14	Cow/Calf BMP	Extension Office	6:30 pm
May 16	FMGA Conference	Live Oak	
May 16	How to Create a Rain Garden	Columbia Co Library	1:00 pm
May 19	Butterfly Garden	Extension Office	6:00 pm
May 28	Rain Barrel Workshop	Extension Office	6:00 pm