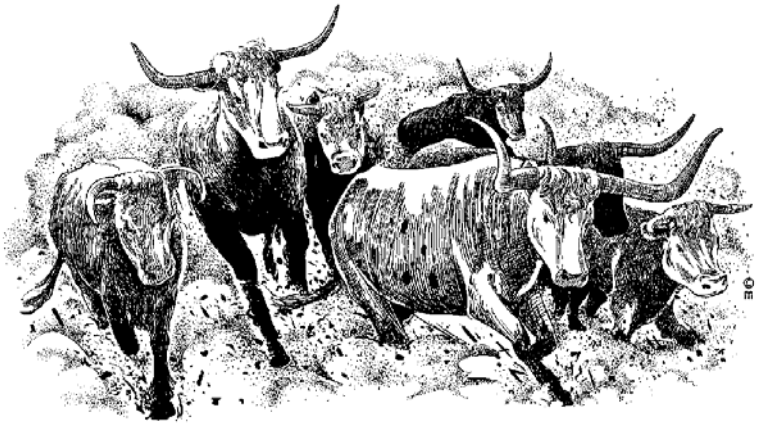


Institute of Food and Agriculture Sciences

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MARION COUNTY LIVESTOCK NEWS

FEBRUARY 2005

Best Management Practices for Pastures

“On bahiagrass pastures nitrogen is applied in relation to intensity of use, but generally 50 to 60 pounds of nitrogen/acre should be applied in late winter. This time correlates with a period of low to moderate rainfall and nitrogen fertilizer is least likely to be washed into surface waters. It is also the time ranches are most in need of forage. Other perennial grasses may need nitrogen in late winter and at other times through the year based on IFAS recommendations.”

“Timing of Nutrient Application: To avoid nutrient losses through runoff, apply fertilizers during times with the least potential for leaching or surface runoff. Refer to the water budget (provided by NRCS) for your county to determine the times when the lowest potential for nutrient losses from rainfall occur. Time nutrient applications so they coincide as closely as possible with periods of plant growth and nutrient uptake.”

“Optimize Nutrient Uptake: Maintain proper soil pH for optimum utilization of applied nutrients, while preventing toxic effects from other accumulated elements, such as copper. The pH recommendations are published in University of Florida, IFAS Fact Sheet # SL-129.”

“Prevent Nutrient movement off-site: Include erosion control practices to minimize soil loss and runoff that can carry dissolved and soil-borne nutrients to surface waters. Filter strips along streams are very effective in reducing the levels of suspended solids and nutrients. Try to prevent spreading fertilizers in ditches as this is a means of movement offsite. Also, plan fertilizer loading sites away from ditches and canals where spills can contaminate the water.”

[Source: Water Quality Best Management Practices for Cow/Calf Operations in Florida; June 1999.]

Equine Forum

Thursday
February 10th, 2005
7:00-9:00 p.m.

Marion County Agriculture Center
2232 NE Jacksonville Road
Ocala, Florida

TOPIC:
**Pasture Management
&
Weed Control**

SPEAKERS:
Sam Albritton, HELENA
Carrol Chambliss, UF/IFAS Extension Agronomy
Mark Shuffitt, Marion County Extension

Feeding Hay to Horses

Before feeding, inspect hay for dust, mold, or other contaminants. Moldy hay should never be fed to horses as they may develop a respiratory allergy to the hay. The most severe form of this problem is referred to as chronic obstructive pulmonary disease (COPD), or heaves. Horses with heaves suffer permanent lung damage. These horses are usually unable to be exercised and thus are not useful for many physical activities.

Symptoms of heaves (coughing and difficulty breathing) may be minimized by controlling dust and mold in a horse's environment. Three common management techniques include good ventilation, soaking hay in water to prevent dust, and using hay cubes instead of long hay as a forage source.

Hay may be fed in racks or tubs, or it may be placed on the ground. Putting hay in a rack or a tub usually reduces waste, especially when groups of horses are fed together. When hay is fed on the ground to a group of horses, 20-40% of the hay may be wasted. Waste will be greater with late maturity grass hay that is low in palatability. When alfalfa is fed on the ground, leaf loss may be high. This is significant because the leaves contain the most nutrients. When using hayracks or mangers, be sure they allow enough space for all horses in an enclosure to eat comfortably at the same time. If there is inadequate space, some horses will be excluded or injuries may occur as they compete for space. The rack or manger should be placed in a location that allows safe and easy access for horses and humans. Hay racks that tip over easily are unsafe, as are feeding devices that horses can jump into (such as some cattle feeders). Hay feeders must be cleaned regularly to prevent the buildup of material that can mold when wet.

Large round bales may be used for horses under some circumstances. Unless they are placed in a feeder, the amount of waste from a round bale may be relatively high (up to 40%). Large round bales that have been stored under cover are safe to feed if they are mold free. Bales that have been stored outside may be used if the outer, weather damaged layer is first removed. Twine or netting must also be removed. Round bales are most effective for feeding large groups of horses where the hay is consumed rapidly. Round bales that stay in the paddock for several days are likely to become wet and moldy.

When hay is fed in pasture or paddock to several horses at the same time, it is helpful to group horses by physiological state. This will allow the appropriate matching of the nutrient needs of the horses to the amount and quality of forage offered. For example, if a 600-lb idle pony and a 1200-lb pregnant mare are

allowed access to the same hay, it is likely that either the pony will be overfed or the pregnant mare will be underfed. In most situations, very high quality alfalfa hay should not be fed free choice. Because it is highly palatable and nutrient dense, free access often results in obesity in horses with moderate to low nutrient requirements (most horses kept for recreational purposes). A better hay choice for these horses would be full bloom alfalfa hay or an alfalfa-grass mix.

Source: "Alfalfa, The high-quality hay for horses". By, Glenn E. Shewmaker, Dan Undersander, Laurie M. Lawrence, Garry D. Lacefield. (Sponsored by) National Alfalfa Alliance. www.alfalfa.org

Forage Quality Terms and Definitions

Laboratories analyze forages by chemical analyses or near infrared reflectance (NIRS) methods. A forage test typically includes measurements of moisture, crude protein, acid detergent fiber, and total digestible nutrients. Each term is defined below:

Moisture - Hay moisture content is important because the higher the moisture content, the lower the dry matter and nutrient contents per pound of feed. A high moisture content (above 15%) increases the likelihood of mold damage during storage.

Crude Protein (cp) – Determined by measuring the nitrogen content of the sample and multiplying by 6.25, since protein in forages contains about 16% nitrogen. The general quality of hay is closely associated with crude protein, and both are related to stage of maturity and leafiness.

Acid Detergent Fiber (ADF) – ADF is the percentage of *highly indigestible* plant material present in the forage. It contains cellulose, lignin, and silica. ADF is a useful predictor of energy and digestibility of forages. Low ADF values mean higher energy value and digestibility; therefore low ADF values are desirable.

Neutral Detergent Fiber (NDF) – NDF represents all of the structural or cell wall material in the forage. NDF is *partially available* to animals. NDF is closely related to animal intake of the forage: as NDF increases, intake decreases. *Like ADF, low NDF values are desirable.*

Total Digestible Nutrients (TDN) – TDN represents the total of all digestible nutrients in the forage. It may be the sum of measured quantities or less accurately estimated from ADF.

Source: "Alfalfa, The high-quality hay for horses". By, Glenn E. Shewmaker, Dan Undersander, Laurie M. Lawrence, Garry D. Lacefield. (Sponsored by) National Alfalfa Alliance. www.alfalfa.org

Beef Cattle Management Tips

FEBRUARY

- Top dress winter forages, if necessary
- Check and fill mineral feeders
- Put bulls out with breeding herd
- Work Calves:
 1. Identify
 2. Implant with growth stimulant
 3. Vaccinate
- Provide adequate nutrition to lactating cows
- Check calves for signs of respiratory disease
- Cull cows that did not calve
- Check for lice, treat if necessary

MARCH

- Prepare land for summer crops.
- Begin grazing warm season permanent pastures.
- Check and fill mineral feeder.
- Observe bulls for condition and success.
Rotate and rest bulls as necessary.
- Deworm cows as needed.
- Observe calf health and provide adequate nutrition for “good” weight gains.
- Hang forced-use dust bags by April 1st for external parasite control or use insecticide impregnated ear tags.
- Identify, vaccinate, implant and work late calves.
- Put bulls out by March 1st for calving season to start December 9th.
- Remove bulls March 22nd to end calving season January 1st.

John Mark Shuffitt
Livestock Agent III
Marion County Extension Service

Liming Pastures

January and February may be an opportune time to lime pastures, if soil testing indicates that lime is needed. This is especially true for those areas that are to be renovated and replanted in the spring or summer since it provides an opportunity for the lime to be incorporated. Lime should be incorporated into the soil whenever possible since lime reacts with the soil with which it contacts. Surface applied lime neutralizes the soil acidity of the surface soil, but has little immediate effect on the soil pH below the top inch or so. Most pastures probably do not need to be limed. Tropical grasses in general do not require a high pH. Bahiagrass grows well at a pH of 5.0 to 5.5. The cool season legumes and grasses do require a higher pH and where these are grown, liming may be needed more frequently than is required on our permanent grass pastures. Also, bermudagrass hay fields where high rates of nitrogen fertilizer are applied may require more frequent liming. Do not apply lime to pastures unless it is needed as indicated by soil testing. To do so, will be a waste of lime and money.

Be aware that applying lime to a pasture sod, forms a thin layer of soil at the surface that has a high pH. The high pH at the soil surface may bring about volatilization of ammonia when ammonium fertilizers, such as urea-ammonium nitrate solutions, come in contact with it. Therefore, do not put out lime and nitrogen at the same time. For late winter- spring applications, apply the nitrogen first and allow enough time for a rain to move it into the soil before applying the lime.

Carrol Chambliss, UF/IFAS Extension Agronomy

Sources of Hay

The Florida Department of Agriculture and Consumer Services maintains a Florida Hay Directory. Hay producers who have hay for sale are listed by county. You may obtain this information by going to DACS' Internet web site at <http://www.fl-ag.com> or go directly to the hay directory at <http://www.florida-agriculture.com/hay/flahay.htm>

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Hay Producers - Prepare for the Coming Season

Burn frosted bermudagrass stubble to reduce spittlebug infestation, certain fungal diseases, remove trash and kill early germinating winter weeds. Burning also seems to allow the sun to warm the ground and stimulate growth. Do not burn too soon. Wait until a few green shoots are present, indicating that the bermudagrass is breaking "dormancy". If a hard freeze follows shortly after growth is stimulated, the stand could be damaged. This is especially true for a non-cold tolerant bermuda such as Coastcross 1. Coastal and other bermudagrasses that have rhizomes have greater cold tolerance and will likely survive a hard freeze.

Study soil tests and consider last year's growth. Are there areas in the field where growth appeared to be reduced or where the stand is thinning?

Bermudagrass uses a lot of potassium and over time there may be excessive "drawdown" of the potassium in the soil profile if only minimal amounts have been applied. Thinning of the stand is a common symptom of insufficient potassium. Fertilize the new growth with 80 pounds of N per acre and the soil test recommended amounts of potassium and phosphorus.

Be prepared to control winter weeds in the first growth period if needed. Burning will kill many of the weed seedlings, but a herbicide may be needed to kill weeds that escape the fire or that germinate later. Try to kill these weeds early so that they will have enough time to dry and disintegrate before the first harvest is taken.