

Marion County Agricultural Newsletter

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University of Arkansas Livestock/Forage Meeting

An informative educational meeting is planned for Thursday afternoon, Nov. 20, 2008, from 1:30 to 4:30 pm. We will first meet and start with some presentations at the Marion County Extension building in Yellville and will end the afternoon at a local farm just west of Yellville – about 1 mile. There will be some important topics of interest for livestock and forage producers in this area. They are:

Topics

1. Cow Herd Management
2. Vaccine Storage – Refrigerator Temperature Demonstration Results
3. Traditional vs Non-traditional fertilizer sources
4. University Forage/Livestock grazing and calving season research results
5. Silage – another option – includes a farm tour of local producer who has been putting up silage since 1957.

Did You Know?

The most profitable cows are most likely the ones that are bred back and pregnant within 80 days after calving

Speakers

Ken Coffey PhD:	University of Arkansas Division of Agriculture Animal Scientist
Kevin Flippin:	Livestock/Forage producer and farm manager
Gay Rorie:	Livestock/Forage producer
Terry Davis:	U of A Division of Agriculture, County Extension Agent for Marion County

Pesticide Safety Training Session

There will be a Pesticide Safety Training session **December 4, 2008, at 6:30 pm** at the County Annex building in Yellville, Ark. This training is required once every five years for those farmers needing a Restricted Use pesticide permit or license issued by the Arkansas State Plant Board. Many of the herbicides used for weed and brush control in pastures are labeled Restricted Use, and a permit number is required at the time of purchase. There is a \$10.00 fee for attending the training session. No sign up or preregistration is required. For questions or more information you can call the Arkansas State Plant Board at 501-225-1598 or the Marion County Extension Service at 870-449-6349.

Legumes

An Option to Save on Nitrogen Fertilizer ?

Unless you are the owner of a large commercial poultry operation, you may be struggling with the high costs of nitrogen fertilizers and how to keep your operations viable. Legumes such as clovers, vetch, lespedeza, etc., may be an option to lower fertilizer costs while still improving yield and quality of pastures. Legumes can be a worthwhile option; however, they do have some limitations. Introducing and maintaining legumes require specific management, some patience, improved grazing management, and some experimenting on your own.

Clovers and other legumes are plants that can make their own nitrogen. Legumes are those plants that have the ability to fix atmospheric nitrogen through a symbiotic relationship with certain types of bacteria that colonize on their roots. Legumes include: clovers, lespedeza, vetch, alfalfa, winter peas, and even the vine Kudzu. The green beans you grow in your garden are a legume. These “good” bacteria are responsible for converting nitrogen in the air into forms usable by the host plant. About 95% of the total legume nitrogen requirement may be provided in this way. It is important to know that nitrogen transfer to grasses usually occurs indirectly from leaf drop or plant death of legume plants. Also a significant amount of nitrogen from legumes can come from animals grazing the legumes and depositing their manure and urine within the same pasture.

While nitrogen fixation of legumes in a pasture might be sizable, actual nitrogen transfer to grasses will be much lower. For example, a really good stand of clover in a grass pasture might fix between 80 and 150 lbs of actual nitrogen per acre. However, the actual annual transfer of nitrogen to the grasses may be only 20 to 40 lbs of nitrogen per acre. To put this in perspective, 90 lbs of ammonium nitrate fertilizer would provide 30 lbs of actual nitrogen.

Crucial for successful legume establishment and maintenance are the correct pH of the soil and also appropriate soil fertility levels of phosphorus and potassium. The level of potassium is particularly important. You should maintain a pH of 6 or above if you want to grow legumes. Trying to establish clovers below a pH of 6 is probably a waste of money. Most clovers prefer a pH near neutral or 7. If lime is needed to adjust the pH, it should be applied about 1 year before you try to seed the legume.

Also important for establishing legumes is the inoculation of seeds with the proper Rhizobium bacteria prior to planting. Each legume species requires a particular strain, so producers should

Did You Know?

There are a growing number of unwanted and abandoned horses in the U.S. This has been attributed to the high costs of hay and feed. In addition, the forced closing of the nation's last three horse slaughter facilities has removed the floor on the value of unwanted horses

pay close attention to obtain the correct inoculant for the seed. Some legume seed is already pre-inoculated.

Application of nitrogen fertilizer is detrimental to legume seedlings trying to become established. The nitrogen fertilizer will encourage extra growth of the grasses and can cause the grass to out-compete and shade out the clover seedlings.

Clovers and other legumes are not as hardy as our perennial grasses such as fescue and Bermudagrass. Reseeding will often be necessary either every year or every other year.

White clover is typically a good choice for our area. It can be over-seeded at the rate of 2 pounds per acre, which makes it fairly reasonable cost-wise on an acre basis. It can be over-seeded in the fall or also in late winter from February 1st to March 15.

Vetch is a good legume choice to over-seed in the fall over a dormant stand of Bermudagrass. This is normally done in the month of October. The Bermuda should not be too tall at the time of seeding, normally about 2 to 4 inches tall.



Is there really a breed of cattle that is a purebred ?

Hilton Briggs, the universally recognized authority of breeds of cattle and author of the book Modern Breeds of Livestock, defines a breed as follows: “A breed of livestock is a group of animals that as a result of breeding and selection, have

certain distinguishable characteristics.” He goes on to define a purebred animal as “an individual both of whose parents are duly registered in a Registry Association.” It is interesting to note that Briggs says nothing about “breed purity.” If one studies and goes back into livestock history (and many times you only have to go back to recent history), it can be concluded that very few populations of so-called “purebred” cattle exist. All the breeds of cattle we know of today, except probably two breeds, were developed by combining various strains of cattle within a region into a generally agreed-upon type.

Through history and blood-typing , it appears that only two breeds of cattle appear to have remained free of any outside blood. One is Scotch Highland cattle, which originated in the rough, mountainous regions of western Scotland. This breed has no infusion of any outside

blood. The other breed is the Galloway, which originated in the province of Galloway in Scotland. When the Romans first populated Great Britain, they found these cattle roaming the forests of that region. Galloway is the oldest breed of beef cattle in the British Isles.

Is there really such a thing as a purebred? It really depends upon how you want to define a purebred. ** This article was adapted from an article by Harlan Ritchie, PhD, Michigan State University.

Make Wise Decisions for the Winter Feeding Period

Deciding what supplement to feed or not to feed can have dramatic effects on the profitability of your cowherd. Supplementing a nutrient that is not deficient in your hay is an expensive mistake and, vice versa, not supplementing a nutrient that is deficient in your hay is also an expensive mistake.

Having your hay tested for protein and total digestible nutrients (TDN) can take a lot of guess work out of your winter feeding program. You can refer to the table below to use as a guide in deciding what supplements are needed once you have the results of your hay test. As an example, let's say your hay tested 13 % protein and 58% TDN. Referring to the table below, nursing cows with average milk production would not need a supplement other than the hay and a salt/mineral. Nursing cows with high milk production would not need a protein supplement but would need a grain supplement to meet a TDN deficiency. Normally, grain supplements are a better choice for TDN or energy supplementation than are protein-type supplements. Looking at the nutrient requirements of dry cows, one can see this hay would easily provide all protein and TDN needed so no supplements would be needed other than a good salt/mineral.

You can see how hay test results can be a guide for making wise decisions for the winter feeding period. You can submit a hay sample for testing at the county Extension office in Yellville, and we will send it to the University of Arkansas Forage Testing Lab. Cost is \$22.00 for testing and mailing. Also, there are numerous private labs that can test hay, and some feed companies can test hay.

Did You Know?

In the last few years, a 50:50 mix of soyhulls and corn gluten feed has become a common feed supplement due to these two byproduct feeds complementing each other in mineral and protein content.

General Nutrient Requirements of Beef Cattle

Production Class	Body Weight	ADG	Minimum Percent Protein of Total ration *	Minimum Percent TDN of Total ration *
Nursing Cow Ave. Milk Production	1100 lbs		9%	57%
Nursing cow High Milk Production	1100 lbs		11%	60%
Weaning Calves	500 lbs	1.50	12%	64%
First calf Heifers nursing A calf	900 lbs		11%	62%
Dry cows	1100 lbs		7%	47%

These requirements are based on a 100% dry matter basis.

ADG = Average Daily Gain

In closing...

It is my pleasure to provide Marion County agricultural producers with educational information to assist you in your efforts. All of our meetings and activities are open to all interested persons without regard to race, color, national origin, religion, gender, age, disability, marital or veteran status or any other legally protected status. We are an Affirmative Action/Equal Employment Opportunity Employer. Persons with disabilities who require alternative means for communication of program information (large print, audio tapes, etc) should notify the county Extension office as soon as possible prior to the activity.

Sincerely,

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University of Arkansas, United States Department of Agriculture, County Governments Cooperating

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