I get several questions yearly about Ag lime vs. Pelletized lime. These results give a good look at cost comparison and the neutralizing power between the two. This is a great demonstration conducted and shared by Brad Runsick in Fulton Co.

Two demonstration plots are currently ongoing here in the county. One of those is the multi-year, lime demonstration plots where we are measuring the difference in changes in soil pH with various lime materials from different sources and the application rate/acre. pH is perhaps the 2nd most limiting factor to forage growth in our area, just behind rainfall. But, unlike precipitation, it is one we can actually control, and doing so in an effective economical way is one of the foundations of a good farm forage program. A quality liming is a big investment, so we want to get it right.

These plots initially sampled out to an average pH of 5.3 back in January 2016, and the soil test recommended 2 tons lime/acre. This is for lime with an ECCE % of 47% (average Arkansas lime quality). As you can see, treatments 2-8 are very close to that; 9-15 were applied with significantly higher quality lime.

This is below what would be ideal for grass growth, and well below what we would like it to be for forage legumes. So, it was an ideal spot for some test plots. The lime applications (table below) were made in late January, and to date, follow up sampling has been done at 3 weeks after application and 3 months after application.

Since lime can take 3-6 months to fully break down and actually change the pH in the soil, we are sampling these plots at 3 weeks after treatment, 3 months after treatment (MAT), 6 MAT, 9 MAT, 12 MAT, 18 MAT, 24 MAT, and 36 MAT. The current results are in Chart 1.
As of these results, it is still 3 months out from where we’d expect the final pH to settle, but there can be a few takeaways this early. The pelletized lime, at the rates applied, does not match the neutralizing power of the ag lime. One of the claimed benefits of pelletized lime is that it works faster. Thus far, this study does not support that. Pelletized lime plots have, thus far, failed to reach the optimum pH of 5.8. The only exception is the highest rate of 1000 lbs./acre with the higher quality pelletized lime (64% ECCE). The pH was raised to 5.8 at the 3 week mark but had fallen back down to below 5.6 at the 3 month mark. It should be noted that the 1000 lbs./acre rate of pelletized lime would also come at a cost of $100/acre.

This is to be expected, since it is a lower rate of a material that has a similar ECCE value. The ag lime treatment at the soil test recommendation of 2 tons/acre, at the 3 month mark, has shown a rise in pH above the recommended pH for grasses.

Choosing a Calving Date

(Funston, R. N., et al., University of Nebraska, South Dakota State University and USDA-Agricultural Research Service) Professional Animal Scientist 32:145-153 (April 2016)

One of the most important decisions a cow-calf producer must make is choosing a calving date. This decision must take into account the entire beef production system, environmental conditions, available resources, and production and lifestyle goals. Calving season influences how other production events occur, such as peak lactation, rebreeding, weaning, and marketing, all of which affect an operation’s profitability and efficiency.

- Any calving system, regardless of date, should address the relationship between nutritional requirements of beef females and the quality and quantity of available feed. Nutritional status of beef females is influenced by stage of production and the environment, including length of growing season, forage species, day length, topography, forage quality and availability, ambient temperature, annual rainfall and weather extremes.
- Periods of growth, gestation and milk production each influence nutrient requirements for the growing and adult female. The relatively high nutritional requirements of cows in late gestation and early lactation can affect subsequent reproductive performance in limited nutritional environments.
- Operations with available highquality feed resources and minimal environmental stress can sustain larger cow size and greater levels of milk production for increased economic returns. But under conditions of low feed availability and greater environmental stress, cow size and milk production should be limited.
- Bos indicus-influenced genetics has introduced a more heat-tolerant animal suited to perform in the hot, humid environment of the southeastern United States. Additionally, some beef producers in the Southeast choose a calving and breeding season when ambient temperatures are lower and extreme weather is less likely to disrupt breeding or create environmental stress during calving.
- Most spring-calving production systems have historically marketed cattle in November, resulting in a high calf supply. An increased supply at this time results in a lower price when compared with calf prices in winter or spring. Calves sold at an alternative time to November generally receive a higher price because of decreased supply at weaning and marketing. A higher price received must offset the potential added cost of harvested feeds needed to support an alternative calving system.

Pinkeye incidence in cattle expected to be high

Pinkeye (infectious bovine keratoconjunctivitis) is a disease caused by bacteria. Typically, warmer months favor pinkeye for several reasons. Because the face fly (Musca autumnalis) has a sponge-like mouth, it tends to traffic viruses and bacteria as it feeds on the protein-rich mucus membranes of the affected animals. Heidi Ward, veterinarian and assistant professor of animal science for the Division of Agriculture, said that true Pinkeye is caused by an opportunistic bacteria “Pinkeye can’t just get onto the eye and cause an infection,” Ward said. “There has to be an initial irritation to the eye, which is why we pay attention to environmental conditions. If the cattle are in areas with tall grass, dry air or dust, they are predisposed to infection.”

Management/Treatment Options:

- Face Fly Control
- Vaccination
- Mowing tall grass
- Shading
- Antibiotics

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ASU Beebe Farm Facility October 27th, 28th & 29th

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DAY ONE:

- Introduction of cow’s reproductive anatomy
- Demonstrate A.I. technique utilizing reproductive organs
- A.I. practice using reproductive organs
- Live cow practice
- Review

DAY TWO:

- Introduction to A.I. equipment and use
- Introduce semen handling and practice
- A.I. technique practice using reproductive organs
- Visual target area practice using pellets
- Live cow practice
- Review

DAY THREE:

- A.I. equipment/LN tank maintenance
- Introduction of cow’s reproductive physiology
- Review of estrus detection
- Estrus synchronization methods
- Economics of A.I.
- Semen handling practice
- Pregnancy testing via tail bleeding practice
- Live cow practice
- Review

Class size will be limited in order to provide each student individual attention and is booked on a first come first serve basis. For more information call 501-316-3536.