Forage News

MISSISSIPPI STATE UNIVERSITY EXTENSION
Center for Forage Management and Environmental Stewardship

Cutting the Cost of Forage Production, No Corners

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The dynamic increase in fertilizer, herbicides and commodity prices have producers determining ways to cut costs and still maintain sustainable forage production. Some of these inputs are making forage production, especially hay, cost prohibited. On the other hand, an extreme reduction in some of the management practices could lead to reduced animal performance and a long-term impact on pasture production and sustainability. The increase in commodity feeds and the limited availability of by-products make feeding less attractive compared to grazing. There are several strategies that producers need to consider for minimizing the impact of high production costs:

Soil Test to Enhance Pasture Productivity - The tradition of putting out fertilizer without a soil test because that is how my grandpa, my dad, or that is how I have done it for a long time, will need to change if you want to continue having forage production and being in the livestock business. Take a soil sample to determine the needs of your pasture or hayfields. The use of fertilizer such as Triple 13 or Triple 17 can cause under or over-fertilization depending on what your needs might be for each specific nutrient. If your soil has a low pH and it needs lime, concentrate on liming your pastures before you invest in any other form of fertilizers. Lime is the cheapest type of soil amendment. Split applications of nitrogen (N) and potassium (K) often maximize utilization and return on your investment. Producers need to be cautious of liquid products (lime and nitrogen) that are being sold in 2.5 gallons with very low rates of application. Calculate how much nitrogen is in those products or effective lime. They are expensive and there is very little independent research to validate their efficacy and return on your investment. If fertilizing each acre becomes cost-prohibited, consider reducing the number of acres being fertilized and develop a sound nutrient management plan.

Extend the Grazing Season as Much as Possible - *Data* collected over the years indicate that the most profitable and sustainable livestock operations are those that extend the grazing season and reduce supplementations. The cost of supplementation can be 60-70% of your budget to maintain an animal. In the southern USA, extended grazing season means incorporating an array of grazing practices such as stockpiling in the fall (tall fescue, bermudagrass, bahiagrass), planting annual winter forages (ryegrass, small grains, annual clovers), and incorporating perennial clovers (white and red clover) into warm-season perennial grasses to reduce N applications. Integrating clovers is a great practice but it is more than a long-term system approach and not a quick fix to nitrogen replacement. Operations that incorporate these management practices could have the potential to reduce hay supplementation to less than 45 days instead of the traditional 110 days that we observe in Mis-

sissippi. It is important to remember that every day spent grazing is one day less livestock need to consume hay or commodity feed. Extending the grazing season also means incorporating a rotational grazing practice that allows pastures to rest and be more competitive to reduce weed competition as well. You do not have to move cows every 30 minutes to have a successful rotational grazing system, but appropriate stocking rates will help ensure adequate forage availability and optimize pasture growth. Some people might argue that rotational grazing requires labor and monetary investment, which is true, but have you thought about your cost of hay production and the cost of supplementation because of the focus on tonnage instead of nutritive value? Also, how many hours per acre do you spend making hay and then feeding that hay in the winter? After a week of developing a rotational grazing strategy, the livestock will adapt and let you know that is time to get better nutrition. This means that the return in carrying capacity and/or grazing days will far exceed the cost of developing an efficient rotational grazing system for your farm.

Control Your Weeds– Herbicide prices are high, and availability is limited at best in some products. Despite the current situation, it is important to understand and control the weed pressure in your pastures. Scout your fields since annual and biennial broadleaf weeds can green up even before grasses. Weed control strategies are part of the integrated management approach to forage production and fertilization. Good grazing strategies make pastures more competitive against some weed species and fertilization can be impacted by nutrient uptake of heavily infested areas. Weeds steal the moisture, nutrients and sunlight forages need and reduce forage productivity. There are still some broad-spectrum economic viable herbicides options when applied at the correct growth stage and the correct rate. Mowing is not a cheaper strategy when considering fuel cost and the number of times done during the year. Every time you mow to control weeds, you are also reducing the biomass production of the desirable species.

Improve your Hay Production: Know Your Hay Quality – Excessive hay production and hay feeding are a hobby in the southern USA rather than a necessity. Producers need to develop a hay budget that can allow for reducing the number of acres needed and the amount of fertilization. Having hay that has been stored for more than a year is not a good practice since nutrients and the cost of production are being wasted. Most producers do not even know how much it costs to produce a ton of hay. There is a need to figure out this economic impact along with the nutritional value and benefit to the livestock. There is a need to balance the scale between yield production and nutritive value. To do so, producers need to cut hay at the vegetative growth stage instead of the reproductive stage. If you are cutting hay in a 45- to a 60-day interval, there is a lot of economic losses. You might have achieved high yields of production but with high fiber and very low nutritional value. This translates into nitrogen losses, more hay needed due to lower intake, higher refusal by the livestock, and increasingly costly supplementation to maintain the animal during the winter or under drought conditions. Do not guess, test your hay to determine what, how much, and what type of commodity is needed for supplementation. A supplementation plan developed without a forage analysis is purely a guess and does not represent the true nutritional needs of the herd. Overfeeding is a waste of money, while underfeeding is a waste of forage production and animal performance. Commodity feeds have a specific place in a diet and should not be viewed as management replacers but as enhancers, therefore, know the true deficiency before adding them since you are paying a premium for the added convenience.

Minimizing Waste During Hay Production and Feeding **–** Harvested forages represent the largest single feed cost in most livestock operations across the southern USA. Improper storage of your hay can cause losses ranging from 10 to 50%. Feeding methods also influence the amount of hay needed for a season. These two combined practices can cause losses exceeding 40%, especially if the hay fed is low in nutritional value and high in fiber. This does not mean that you will have to go and spend thousands on a hay shed, but you could use a gravel area or materials that keep hay off the ground and covered with tarps to minimize losses of the outer layers. Some operations might consider grinding the forage and incorporating it into a total mixed ration, but this option might be limited to most producers. Be efficient and do not provide more hay to the livestock is needed. Most cows can consume their dry matter intake in approximately six hours. Therefore, reducing access to the bale feeder through an electric fence or using a heavy use area could help minimize waste.

The reality is that long-term prices of farming commodities are expected to increase rather than decrease. This means that forage and livestock producers need to take a hard look at their management practices, evaluate their forage systems and determine how to efficiently reduce production costs to be sustainable and profitable without sacrificing animal performance. This means adjusting grazing and hay production plans, scouting early and often for timely weed control, fertilizing according to soil test recommendations, balancing yields with better forage quality, and implementing efficient rotational grazing practices to avoid overgrazing and improve pasture recovery. Critically analyze all aspects of the nutrition program to ensure sound management practices before utilizing these commodity feed products to enhance the outcome of your livestock operation. Producers need to be proactive instead of reactive, so they know what to expect and how to take the best course of action. Pencil down and analyze efficient viable options for your operation. Times are changing fast and there is no better time to know your real cost of production instead of following the tradition.

Upcoming Events

June 2, 2022— **White Sand Experiment Station Field Day | White Sand (Poplarville), MS**
More information coming soon.

For upcoming forage related events visit: ***http://forages.pss.msstate.edu/events.html***

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