

OUR EXPERIENCES WITH EASTERN GAMAGRASS

Tommy Yankey

Anderson County Extension Agent for Agriculture/Natural Resources

As livestock producers try to reduce their cost of production, many look at ways to reduce their feed costs. Feed costs have been identified as the largest single cost of livestock production, making up 50 to 70% of the total cost of production. Grazing is the cheapest way to feed cattle on a cost per pound of nutrient basis.

Extending the grazing season is one solution to enable producers to reduce costs and expand production with little or no impact on the environment.

With grazing, 80% or more of the nutrients are returned to the land as manure and promote nutrient cycling and minimize potential impacts on ground and surface water.

I first became interested in Eastern Gamagrass in 2006 after visiting with Dave Burton, a beef producer in Pulaski County who established a 12-acre Eastern Gamagrass field over 13 years ago, and has grazed it successfully ever since.

Keenan Turner, former Agriculture Agent in Pulaski County and most recently coordinator of the Master Grazer Program, had documented stocking rates and grazing days from years of records kept by the farmer.

About the same time fertilizer prices started escalating contributing greatly to the cost of stored feed. I became convinced that we had to do a better job grazing and to help farmers by using a mix of crops to extend the grazing season. What I call for lack of a better term, a holistic approach to forage management.

UK Ag Economists typically say we can graze for about two-thirds the cost of stored feed. Of course strip grazing improves utilization which lowers costs.

Other reasons to extend the grazing season are that weather is of less concern, animals can graze almost without regard to weather. It requires less labor as less labor is required to have animals graze rather than to provide them with stored feed. And then lastly, grazing typically has lower expenses. Stored feed is almost always more expensive per animal or per day than pasture.

Eastern Gamagrass is a native perennial bunch grass that I felt could work well to extend the grazing season once established. It is a long lived, up to fifty years, warm season species native to most of the Eastern half of the United States.

Eastern Gamagrass establishes slowly and competes poorly the first year with annual grasses and broadleaf weeds. The inherent slow growth prevents canopy

closure until the second year. Following the establishment year Eastern Gamagrass will compete effectively with weeds without any weed control other than proper grazing management or spring burning.

Because Eastern Gamagrass is slow to establish this has led to reluctance on the part of farmers to plant Eastern Gamagrass as they have not wanted to give up production from the field for one to two years.

Now would be the proper time for me to say in fairness that 2007 and 2008 were extremely tough growing years for all crops. 2007 was the third driest year in our region in the last 113 years. That is when most of our acres were planted. What a difference a year can make. We've planted 28 acres this year and my learning curve has increased greatly. More on that in a few minutes.

I had visited farms who established Eastern Gamagrass with corn and a few who had seeded pure stands. Our farmers had been reluctant to give up use of their land so we decided to establish our Eastern Gamagrass with field corn.

Planting with corn also gives additional weed control options. We planted corn in 30-inch rolls at 26,000 plant population. Then we changed the plates on the planter and immediately came back and planted Eastern Gamagrass in the row middles between the corn.

The objective is to drop a seed within the row every 3-4 inches. We lime and fertilize each field according to soil test for P and K, and we apply Nitrogen totaling 140 pounds of actual N in two applications.

We do not allow the cattle into the field corn/Eastern Gamagrass until freeze down. The Eastern Gamagrass goes dormant at freeze down and is less prone to damage by hoof pressure in the year of establishment. We then start strip grazing the field corn/Eastern Gamagrass about the first of November or first of December.

We typically graze 25 cows per ½ acre per week trying not to put the cattle onto the field the first winter under extremely wet and sloppy conditions. Sometimes you have no choice, but from past experience we feel we have done permanent damage to the crowns when cattle grazed under really wet conditions.

Most farmers I've worked with have come back the second or third year and frost seeded red clover into the stand of Eastern Gamagrass at 6 to 8 pounds per acre. This helps to reduce weed competition and provide some free nitrogen to the Eastern Gamagrass. We also apply 30-40 pounds of actual nitrogen per acre to stimulate some grass growth. The red clover is providing very little free nitrogen at this time and the Eastern Gamagrass really benefits from the added boost.

Following initial seed head production in July, Eastern Gamagrass will continue to develop seed heads throughout the remainder of the growing season until mid

September. This can lead to natural seeding over the life of a stand which I think we have seen in some stands.

Going into the third year we harvest the Eastern Gamagrass as hay around the first of July. Then we allow the Eastern Gamagrass to stockpile until freeze down. At freeze down we divide the field into 3-4 paddocks. Nutritional value is a little lower at this time of year but it works well in our grazing system.

Last winter we were able to keep 28 head on 11 acres of Eastern Gamagrass for one month before moving to field corn for grazing.

As I mentioned earlier my learning curve has been steep this year. Having planted Eastern Gamagrass around the end of the field and with a few skips in the field of corn the Eastern Gamagrass has established much better. I have seen this occur in all fields we planted this spring.

I now see how much shading occurs of Eastern Gamagrass under normal growing conditions with field corn. Next spring we will be planting Eastern Gamagrass as a pure stand. I believe with the right moisture conditions and correct fertility we can establish a stand the first year.

In summary, Eastern Gamagrass can fill the summer slump experienced with using a cool season forage. The crop must be managed being careful not to graze or harvest below 8 inches as you will deplete the carbohydrate root reserves. We have grazed some fields in the summer months. When summer grazing you must provide adequate rest periods of 30 to 45 days to maintain the stand.

Eastern Gamagrass has several desirable qualities including high palatability, relatively early green-up and high production potential. Forage nutritive value is similar to other warm season pasture grasses.