# The importance of good seedstock.

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Cattle producers love to talk about seedstock or “bull power”. There is little doubt that calf prices and sire bloodlines are the most discussed issues in the beef industry- and for good reason. The first thing a cattle producer mentions on almost all of my farm visits is the breed of cattle he/she raises. Usually a brief history of the herd bloodlines follows. All cattlemen recognize that superior seedstock genetics can quickly increase weaning weights of cattle or even improve carcass quality. Using inferior genetics can easily have the opposite effect.

There are many parallels between the animal and plant side of the beef industry (yes, there is a plant side). Although seldom discussed, establishing quality forage seedstock is just as important as purchasing the top cattle genetics. There is a saying in the forage extension specialist community: “cheap seed are no bargain”. This slogan is almost invariably true. In this article I want to point out some relatively obvious observations which highlight the importance of establishing good forage seedstock for quality beef herds.

First, there is no reason to buy a top-fuel dragster if you are going to put low octane fuel in the tank! No sane person would attempt to grow out high nutrient requirement stocker cattle on cotton stalks. One excellent example of a high performing forage is MaxQ nontoxic endophyte-infected tall fescue. University of Georgia research conducted over a three year period indicates that MaxQ tall fescue improves weaning weights by over 50 pounds per calf when compared head-to-head versus toxic tall fescue. Even with these incredible animal gain benefits, many producers feel that it is simply too expensive to replace existing toxic tall fescue. Many of these same producers would not hesitate to pay a large premium for a bull with a +25 index for weaning weight. I argue that in many cases it is more expensive *not* to replace the toxic tall fescue. Think of the novel endophyte-infected seed as a “gift that keeps on giving” for many years to come. An annual fifty pound weaning weight increase over the lifetime of a stand of tall fescue is a good investment.

A similar case can be made for an important South Georgia forage - Tifton 85 bermudagrass. Early small plot yield trials conducted near Tifton indicated that this crop produced about 25% higher yields than Coastal bermudagrass and that its hay is about 10% higher in digestibility. These are incredible yield advantages! A 10% improvement in digestibility is virtually unheard of in plant breeding. Because of this excellent plant performance, stocking rates can be increased and animals will gain weight more rapidly. Research by Dr. Gary Hill on the UGA Tifton Campus indicates that daily gains of growing steers grazing Tifton 85 increased by about 11% and gain per acre increased by about 32% over Coastal bermudagrass. I’m not suggesting you kill all existing Coastal bermudagrass pastures, but why sprig new fields with an inferior variety of bermudagrass in the Coastal Plain of Georgia when costs to establish Tifton 85 are essentially identical

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to Alicia or Coastal? The only valid reason that comes to my mind is for slightly faster curing rates or to cater to a horse market that desires fine-stemmed hay. In beef cattle grazing operations, neither of these reasons is valid.

There are other comparisons we can make between forage and beef cattle management inputs. For example, both cattle and pastures need some form of supplementation. At minimum, mineral supplements are needed for basic processes in beef cattle. Calcium is important for milk production, magnesium is used for bone formation and enzyme activity- the list goes on and on. Lime can be thought of as a similar supplement for soils and plants. Lime supplies calcium and sometimes magnesium to plants. Just like in cattle, these minerals are used for critical processes in plants. Lime also decreases soil acidity which increases plant availability of nutrients like phosphorus. Protein (which contains about 16% nitrogen) is frequently supplemented to beef cattle to improve digestion of low quality forage, thereby allowing higher intake and performance. Protein is also used in animals to form muscle and grow. Similarly, nitrogen is a critical supplement needed for grasses to increase growth rate, forage crude protein content, and yield. Nitrogen is needed to form chlorophyll in plants which is critical for photosynthesis.

Again, I am not attempting to diminish the importance of the purebred seedstock industry. In fact, I almost did not submit this article to the *Georgia Cattleman* because I thought it might be misconstrued as an attack on the purchase of high quality seedstock. I fully support the important role that purebred beef producers play in advancing the beef industry. My overall point is this: Quality seedstock of *both* plants and animals makes a huge impact on pounds, quality and profitability of beef produced per acre.

Animal breeders have been extremely successful in promoting the importance of quality seedstock to cattlemen. Forage breeders and extension specialists have been far less successful in conveying the importance of quality forage varieties and management. *In addition* to purchasing quality bulls in future years, give serious thought to upgrading genetics in your forage program as well. Even a Ferrari performs poorly on low quality fuel.

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