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Growing Cows for Grass

by Mary Penick



In recent decades, most commercial beef cattle producers have been producing for the grain finished market. This has involved increasing cow size, increasing birth weights, and increasing weaning weights, with the result that producers have found themselves forced into the situation of feeding expensive supplements to keep cows from starving.

Realizing this, many producers are now looking instead to reduce costs. This strategy involves the reverse of many practices used when producing for the grain-finished market. These include reducing cow size, reducing birth weights, keeping high "percentage" weaning weights (calf's weaning weight as a

percentage of cow's weight), and only supplementing when absolutely necessary.

Pursuing the latter strategy requires focusing on genetics that perform on grass. Many challenges face grass-fed beef producers, but genetics plays by far the largest role in success or failure. Successful graziers require early-maturing cattle with small frames and a deep body that deposits fat easily, usually at 1,000 to 1,100 pounds.

Additional desirable breed traits for cattle that produce well on grass include maintenance of body condition during all phases of production, ease of calving, and low maintenance (feet, udders, etc.). Calves stay on their mothers for more than 120 days, with most producers waiting 9 to 10 months before weaning.



Breed Selection

Breeds that typically exhibit these traits include Angus, Hereford, Shorthorn, Murray Gray, Red Poll, and crosses of these breeds. The Kerr Center has been working with Pineywoods Cattle, as well as a Senepol/Angus cross, both of which also display traits required for good performance on grass.

The Pineywoods Cattle herd at the Kerr Center also fulfills the Center's objective of preserving heritage breeds. The American Livestock Breeds Conservancy includes Pineywoods on its priority list with critical status, as a breed with fewer than 200 annual registrations in the United States and an estimated global population of less than 2,000.

Pineywoods Cattle are descended from Spanish stock, shaped primarily in Alabama, Mississippi, and Georgia. They are one of the oldest breeds in the United States, with over 500 years of adaptation to the hot, humid conditions of the South.

This selection has made Pineywoods Cattle long-lived, tolerant of heat and humidity, resistant to disease and parasites, and productive on marginal forage.

Pineywoods Cattle bring less at market, but their production costs are much less than average.

Grass-fed Beef

Grass-fed beef is beef from cattle that have been raised and fattened on forage. It does not include meat from cattle that are confined, even if their sole source of nutrition is baled forage. Cattle that are fed grain or grain byproducts do not produce meat qualifying as grass-fed, nor do those that are fed antibiotics or growth hormones.

The USDA's definition of grass-fed beef for marketing standards reads:

Grass and forage shall be the feed source consumed for the lifetime of the ruminant animal, with the exception of milk consumed prior to weaning. The diet shall be derived solely from forage consisting of grass (annual and perennial), forbs (e.g., legumes, Brassica), browse, or cereal

grain crops in the vegetative (pre-grain) state. Animals cannot be fed grain or grain byproducts and must have continuous access to pasture during the growing season. Hay, haylage, baleage, silage, crop residue without grain, and other roughage sources may also be included as acceptable feed sources. Routine mineral and vitamin supplementation may also be included in the feeding regimen. If incidental supplementation occurs due to inadvertent exposure to non-forage feedstuffs or to ensure the animal's well being at all times during adverse environmental or physical conditions, the producer must fully document (e.g., receipts, ingredients, and tear tags) the supplementation that occurs including the amount, the frequency, and the supplements provided.

Before World War II, much of the beef produced in the U.S. was grass-fed and -finished. Finishing on corn often takes 60-120 days, with young cattle able to go to market at 14-16 months of age. This is much quicker than the two to four years often required to finish cattle on grass.

Because cattle's digestive systems are not adapted to corn, corn-fed beef has twice the fat of grass-fed beef, but lower levels of conjugated linoleic acids (CLAs) and Omega-3 fatty acids. Studies have also found higher levels of E. coli O157:H7 in corn-fed beef.

Cattle producers are turning to grass-fed and -finished beef for many different reasons, including environmental concerns, public sentiment, animal and human health, and costs. Most ranchers who consult with the Kerr Center stress the ability to become a price maker rather than a price taker as an important reason for their decision to switch to grass-fed production. The marketing and selling of grass-fed beef frequently takes out the middlemen.

Production Basics

Grass-fed production is not without thought or science. It requires just as many inputs as

corn-fed production, just in different forms.

Key considerations in grass-fed production systems include breed, forage, management, consistency, and marketing.

Forages must meet the nutritional requirements of the cattle. Year-round forage is needed. This typically calls for rotational grazing, with both warm-season and cool-season forages, and stock-piled forage (either standing or as hay) for winter.

Finishing should be on "mild" forages. Different forages leave a stronger or milder taste in the meat. Kerr cooperators have found that finishing on wheat pasture leaves a very strong taste and is not to be desired. Most try to finish in the cool season on rye/ryegrass/oats or good quality fescue. For warm-season finishing, most try to finish on Johnson grass or crab grass.

In management, timing is everything. A large amount of time must be spent planning, and moving cattle. In addition, management has the same requirements as for any cow-calf operator regardless of production system. Careful attention to soil and plant management pays off, as does cultivating a good relationship with the area agronomist.

Consistency is a requirement in terms of both product quality and supply.

Many marketing options are available to grass-fed beef producers. These include direct marketing, cooperatives, such as the Oklahoma Food Cooperative, and private distributors, such as Thousand Hills Cattle Company, Tallgrass Beef Company, and Burt's Beef.

The Kerr Center's Pineywoods Cattle herd grazes year-round. The management system is cell grazing, frequently called mob grazing. The Center is currently developing its finishing pastures, and working on marketing channels, which will most likely involve direct marketing.



Mary Penick

Mary Penick is a livestock specialist at the Kerr Center. She holds a B.S. degree in Animal Science from Oklahoma State University.

She is the Pineywoods cattle manager and oversees the responsibilities of growing the herd while maintaining the genetic and physical characteristics of this endangered breed. Additionally, she provides consultation and expertise for livestock producers throughout the state.

She is currently working jointly with OSU Extension Service to provide comprehensive training and research on meat goats for Oklahoma producers. She also works on the center's pastured pork and poultry projects.



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