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A Hereford Breeder's Perspective:

Managing 'Forage-Oriented' Herefords

by **Debby Dulworth**, Dogwood Farm, LaCenter, Ky.

A cow herd that is managed entirely on grass must make do with whatever forage is available, and it must do so without damaging the grass too much.

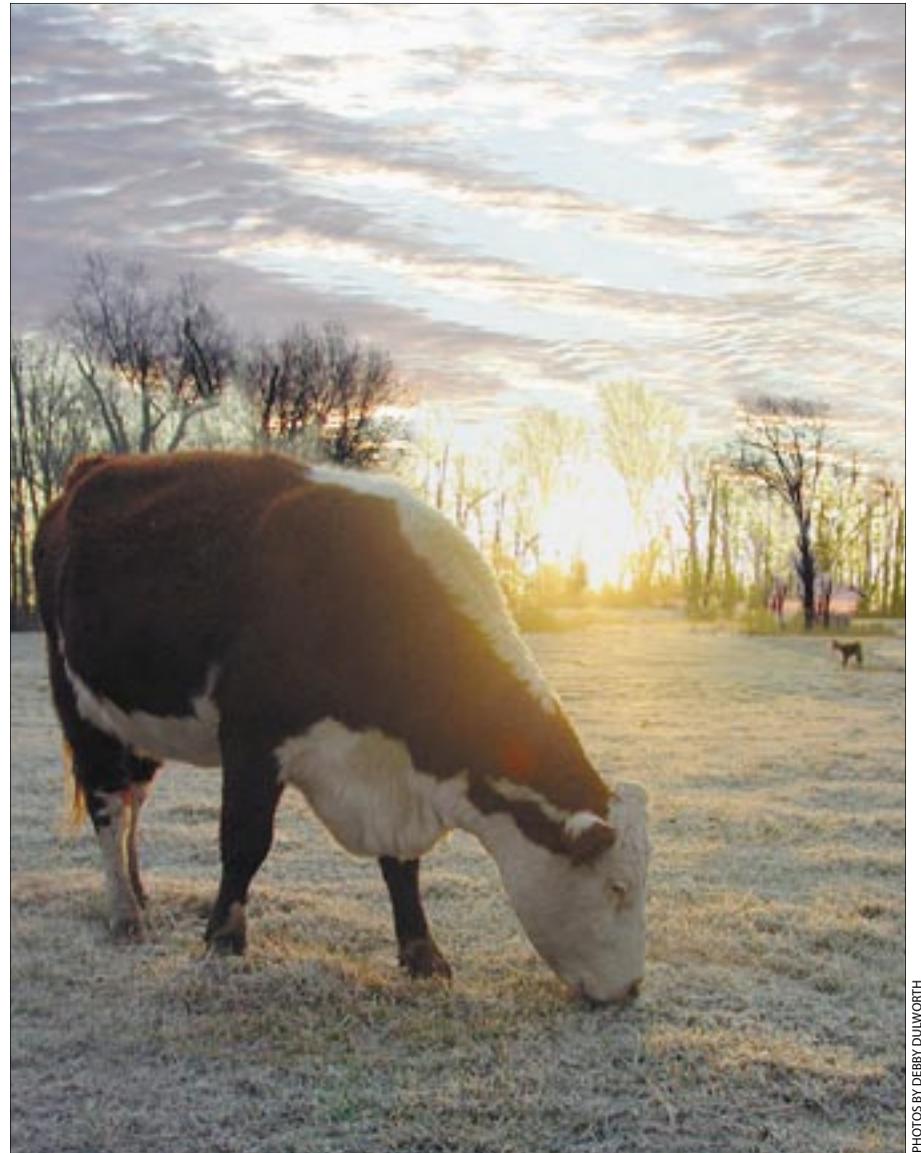
The relationship between grass and cattle is symbiotic. Cattle will do best on grass that is in its vegetative state — growing grass. Grass will grow back best if it's grazed intensely for a short time during its peak period of production, so that the top growth is uniformly clipped but not overgrazed, and then rested long enough to regrow.

Grasses and legumes are seasonal. Most cool-season grasses perform and stockpile best if rested for a long period during the warm season. Warm-season grasses vary more widely in the kind of grazing and rest that they need. Controlled grazing allows both the grazing animal and the grazed forage to survive and thrive.

The bottom line is that the grass must sometimes take precedence compared to the cow if both are to survive and thrive in the long run. Hereford cattle, because of their incredible efficiency and adaptability, can survive better under situations where the grass must take precedence, remain in good flesh, rebreed and raise another calf when most other breeds of cattle would simply take time off from production. That efficiency keeps commercial cattlemen coming back for forage-oriented Hereford cows and bulls.

Grass: local and diverse

Localization, not globalization, is key to cattle survival on pasture. The first



PHOTOS BY DEBBY DULWORTH

fact we must acknowledge in breeding forage-oriented Herefords is that grass varieties are local and diverse, not uniform and universal. What grows best out of the ground in the high

altitudes of Wyoming and Montana wouldn't have a chance in the low, swampy soils of Florida and Louisiana, and vice versa.

There is no forage that is good for every day of the growing season or ideal for every acre of any given farm or ranch.

In our home state, the bluegrass that gave Kentucky its nickname — and that nourishes famous thoroughbred

racehorses — survives well in the calcium-rich soils of central Kentucky surrounding Lexington.

Bluegrass is a wonderfully nutritious, highly digestible grass. Alfalfa does well in the bluegrass region of Kentucky, too, because of the natural lime content

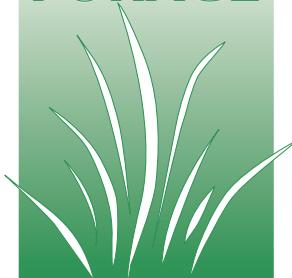
of the soil. However, here in extreme western Kentucky, bluegrass is only an occasional or incidental grass found mainly in pampered lawns. Acidic soils and low altitude won't allow bluegrass to be a pasture staple here. Alfalfa can grow here, but requires careful management and a lot of soil amendments.

What we have in greatest abundance in far-western Kentucky, and what our customers' cattle graze most often, is a heavily endophyte-infected tall fescue called Kentucky 31 (KY 31). According to the book *Southern Forages*, KY 31 tall fescue originated from grass in a hill pasture in Menifee County, Ky., in 1931. The endophyte makes it hardy enough to survive almost anywhere.

Through its own adaptation, KY 31 has become the most prevalent cultivated pasture grass in the U.S. The toxic fungus that develops in its stems and seeds protects the grass from overgrazing by making cattle sick, especially during hot weather,

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Focusing on FORAGE





A group of 2-year-old heifers and their calves in early April. They are on their first rotation through a grazing cell.

causing “summer slump.” Fortunately, if toxic fescue is grazed at the proper times (early spring, fall and winter), if it is grown with clovers and other legumes to help dilute the toxin’s effects, and if the cattle that graze it are selected for their adaptation to such local handicaps, cattle producers can work around most of the dangers of fescue toxicity. However, this requires some education and adaptation.

Some cattle tolerate toxic fescue far better than others. In fact, locally selected Herefords have proven themselves capable of adapting to whatever kind of grass is available in virtually any kind of climate and soil the U.S. has to offer.

Hereford adaptability

Adaptability to forage, as we believe many other longtime breeders will agree, is one of the Hereford

breed’s best attributes. Adaptability is a lesson that our cattle can teach us as their caretakers, if we will just observe how they do it, and take note of how people have selected them to adapt throughout the development of the breed. Herefords were selected from the beginning to meet the challenges of their particular environment.

Longevity, both of the individual animals and of the breeders who breed them, is the

best test and the best evidence of a cattle line’s adaptability. A bull or a cow that survives and breeds for only a couple of years or even for only seven years provides little evidence of adaptability. An animal that lives and breeds for 12, 14 or 18 years has to have been well-adapted to the climate and grass that was its home.

Likewise, a breeder whose herd has survived and improved for seven generations of cattle instead of seven years shows adaptability. The seven-year life span of the average registered breeder’s herd is not enough time to test the adaptability of the herd or its bloodlines.

The Hereford breed’s excellence in adaptability stems from the specific abilities of the original three cow lines that were the basis of the breed almost three centuries ago. England’s Tompkins family selected their Herefordshire cattle from the first generations for their ability to utilize forages, to do well on the forages available without supplemental energy. The three original cow lines — Silver, Mottle and Pidgeon — got their names from their various color patterns. Silver was medium red with a white face and a white stripe from head to tail down her back. Mottle was a very dark red cow with a mottled face. Pidgeon was gray. What these three very different-looking cows shared was a common ability to thrive and stay in good flesh on pasture. In the book *Birth of a Breed*, Orville Sweet wrote, “Color was not considered as being among the prime traits as was evidenced by the first bulls selected for use by the Tompkins. Some were of mottled face, some solid red or grey. The trait upon which they placed greatest emphasis was ease of fleshing and growth. ... It is fortunate ... that the original breeders of Herefords so carefully selected

Dogwood Farm management practices

Management of each calf crop starts out the same. All calves are raised on pasture with their mothers, without creep. Herds are separated into several different groups, by age of cow, on two different farms with different quality grasses. Two-year-old cows get the best-quality grass and the most intensive pasture management.

Calves in all groups can usually creep graze the best quality forages ahead of their dams under temporary polywire or single-wire partition fences. All calves get weighed and vaccinated at or before weaning, then go on an all-roughage diet until they are yearlings. March and April calves are usually weaned in October and fall-born calves usually in June.

A few calves may be steered at weaning, but the majority is usually evaluated for yearling performance and scrotal measurements before banding. Natural testosterone helps yearlings develop more muscling than calves castrated earlier in life. The bulls with yearling weights in the lower half of the crop and any bulls failing to meet a minimum 32 cm scrotal circumference become steers.

Most of the steers then go back out to pasture to finish growing out with replacement heifers. These late-banded, moderate-framed, forage-oriented Hereford steers will finish on forage by the time they are 15-24 months old. Custom forage-fed steers often bring as good a price in our niche market as our basic seedstock bulls.

Forage-developed breeding bulls, because of their soundness and practicality, also enjoy a good demand. Usually yearling bulls are offered by private treaty in our sale lot. Some customers want older bulls, which go to a large drylot for maintenance on free-choice hay. Bulls receive a small ration of soyhulls — a high-fiber forage alternative made from the bran layer of soybeans, which provide a good level of total digestible nutrients, a lot of



A forage-oriented cow will have good spring of rib, giving her plenty of capacity to ingest large amounts of pasture grasses, and enough milk to raise a calf without creep. She will be efficient enough to be able to store a little extra fat while grazing good grass, in order to survive and remain fertile through tougher times during winter or drought.

fiber, virtually no starch, about 9% protein, and moderate energy. They fight each other to stay fit. With a little strategic advertisement, most of them sell private treaty before their second birthdays.

Again the development on forage is an asset in our market. Because the bulls have no problems with soundness, they are ready to go directly out into the breeding pasture without a “let-down” period, and they tend to have longer, healthier lives than bulls that have been fattened on grain.

Large yearling weights or overly fat cattle, in general, do not impress our customers. Bull customers want sound, trouble-free, easy-handling, easy-calving, easy-to-maintain bulls that sire consistently good calves. Steer customers want tender, healthful beef that tastes good. Forage-oriented, pasture-raised Herefords can do both of these things supremely well. **HW**

the traits that had the highest market value.”

Three hundred years ago in Herefordshire, of course, “ease of fleshing” was always measured in the context of pasture grasses — an animal’s ability to do well on forage.

Management requirements

In a forage-only program, we believe management practices should follow local necessity. Because many of our commercial bull customers use forage-only management we require our cattle at Dogwood Farm to function on grass and hay only, regardless of weather and climate conditions.

Managing our cattle the way our commercial bull customers manage is the only way to be sure that our cattle will function as our customers expect them to function. Bulls and their daughters can’t be pampered or coddled through extremes of weather because our commercial bull customers don’t do that. Some of our customers calve in the spring only, some in the fall only and a few still calve year-round. For this reason, we have both a spring and fall calving season.

Calving seasons follow forage availability

We aim for two distinct calving seasons, with a slight advance season for artificial insemination (AI) breeding. Bulls go into the pastures to breed for calving concentrated around the spring and fall equinoxes, March 21 and Sept. 21.

Average first frost date in our area is Oct. 15; average last frost is April 15. We aim for about six to eight weeks of calving in both the spring and the fall season to coincide with best grass growth and quality when most needed for rebreeding.

Spring-calving cows eat pasture grasses and legumes only, portioned out through rotational or intensive grazing. Surplus cool-season grasses are baled in the spring and stockpiled in the summer. Fall-calving cows eat the stockpiled cool-season grasses and hay only. All nursing cows get a quality mineral supplement. Yes, there are occasional straggler cows under this system, most of which go on our list to cull for direct-marketed, grass-fed hamburger. This rigorous “survivors-only” strategy selects cattle that best meet our customers’ needs.

Niche marketing opportunity

Forage-finished Hereford beef has provided us with a profitable way to diversify our market without added investments. For the past few years, our customer base has extended past the community of cattlemen to directly reach local beef consumers.

Purebred, forage-finished Hereford steers supplement our breeding stock sales, boosting farm income and profits through

direct-marketing of quarters, sides and whole steers. U.S. Department of Agriculture (USDA) inspected hamburger, stew beef and tenderloin from healthy grass-fed cull cows is sold by the pound.

Although we tried several times sending a few weanlings or a whole calf crop of steers to be finished, our split-season calf crops made groups that were too small in number and too diverse in age for meaningful data and profitable feedlot finishing. Individually finishing and marketing grass-finished steers provides a tailor-made outlet. We can market our top 20 male calves as bulls and the bottom 20 as grass-fed beef, and make a similar profit for each group, while filling a growing demand for locally raised grass-fed beef. The positive feedback from our local butcher and our customers confirming the quality of the beef is extremely helpful and encouraging.

Over the past several years, learning to produce and market high-quality, grass-fed, all-natural beef has been a great asset to our seedstock operation, a huge boost to our confidence in the broad merits of the Hereford breed and a greatly satisfying business endeavor. The new enterprise has also required a challenging, intensive and time-consuming self-education. Now Dogwood

Bull customers want sound, trouble-free, easy-handling, easy-calving, easy-to-maintain bulls that sire consistently good calves. Steer customers want tender, healthful beef that tastes good. Forage-oriented, pasture-raised Herefords can do both of these things supremely well.

Farm is a “conception-to-consumer” beef operation, which provides a rewarding perspective for a couple of formerly frustrated seedstock producers. Our forage-oriented Herefords have made possible this diversification to a specialty beef market.

In this particular niche market, which is basically a health-food market, it is an asset that the calves are locally grown, that they spend their whole lives here on our farm, that we know their background, and that we do not sell any beef that has received hormones or been treated with antibiotics. It is also an asset that our farm is small enough to give each animal individual attention, to have steers of different ages ready for sale several times each year and to be able to harvest the steers when they are ready. So the disadvantages of raising steers on grass for the feedlot became advantages in our direct, individualized beef market.

Sharing the message

Customers who buy our cattle often ask us about our experience. We try to recommend reading materials for education, and share our knowledge of possible pitfalls and mistakes as well as our successes in areas like grazing management, forage improvement, fencing and watering techniques, and beef marketing. Our Hereford cattle customers often become friends.

We also try to stretch beyond breed boundaries when we can. Articles similar to this one, published in *The Stockman Grass Farmer*, *The Progressive Farmer* and Kentucky’s *Cow Country News*, among others, have been a part of our commitment to spreading the word about forages and forage-oriented genetics. We hosted a grazing field day in 1999 and our grazing experiences were shared with Kentucky cattlemen at a University of Kentucky Extension grazing seminar in 2000. **HW**

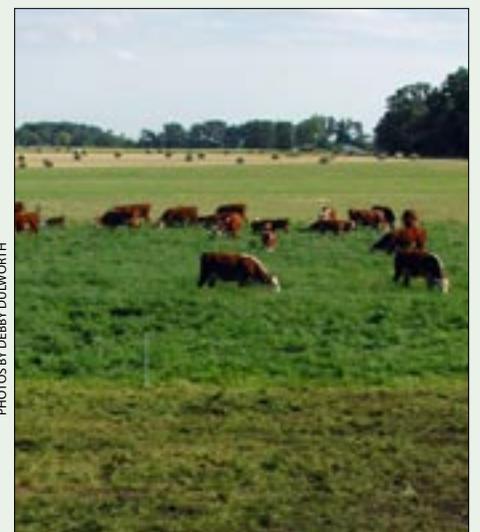
Management-intensive grazing

Debby Dulworth of Dogwood Farms, LaCenter, Ky., says, “Management-intensive grazing is better for all — the land, the forage and the cattle.” The cattle get nutritious young forages in their vegetative state. As they graze, they distribute manure more evenly and work the fertilizing manure into the surface of the ground. Backfencing allows the grass to begin resting and growing again almost immediately and greatly reduces parasite problems for the cattle. Here are a few pictures to explain grazing strategies at Dogwood Farms.



The youngest cattle benefit most from grazing the highest quality forages using management-intensive grazing techniques. In addition to first-calf heifers, this method also works well for grass finishing steers. In the foreground of this photo taken in late May at Dogwood Farm, several March and April calves creep graze a mixture of perennial and annual ryegrasses, fine-leaved fescue and white clovers, as their 2-year-old dams wait in the background behind a temporary polywire electric fence.

When the young cows are turned into the next paddock to join their calves, the forages show little sign that the young calves have had first choice. The temporary fences are moved daily to allow the cows access to fresh grass. Pictured here are several high-quality forages, including ryegrass, two varieties of white clover, fine-leaved tall fescue and a little orchardgrass and timothy.



Once grazed, the paddocks are backfenced and the forage plants are allowed to rest and regrow for 14-28 days before being grazed again. The length of rest depends on weather and growth rate. Using this management-intensive grazing technique, with adequate or normal rainfall, the cattle can run at twice the normal stocking rate per acre of land, or even more. Shown in the background is hay harvested from winter annual wheat and ryegrass, which along with surplus perennial spring grass, supplies hay to supplement stockpiled winter pastures. **HW**