



The cows at Hedgeapple Farm aren't moved as often as the finishing animals, but are usually rotated to a fresh paddock once a week.

TWO STEPS TO QUALITY

Forage-finished beef operation has consistent following from consumers.

Story & photos by Becky Mills, field editor

Hedgeapple Farm isn't the most convenient place to buy forage-finished beef. It's only open three days a week, and beef is all you'll find. There isn't so much as a bun in sight.

Combine that with the crammed-full lives of suburban consumers, and Scott Barao says they do succumb to the occasional temptation of buying their beef at Wegman's or Trader Joe's when they pick up the rest of their groceries. His regulars confess, "I ran out of your ground beef, but yours is so much better."

Barao, executive director of the

Jorgensen Family Foundation, which owns the Buckeystown, Md., cattle operation, and herdsman Jay Fulmer, aren't surprised. Both give the credit to a combination of high-quality forages grazed by top-quality Angus cattle.

Forages

Alfalfa is the centerpiece of the growing and finishing process, joined by orchard grass. Cattle graze the perennials from the time they are weaned at 8 months until harvest, which is typically 20-22 months for steers and 18-20 months for heifers.

"If they don't gain 1.8 to 2.2 pounds a day, they aren't going to produce an acceptable carcass," says Barao.

"You don't want them falling off," he emphasizes. Barao, who was a University of Maryland Extension beef specialist before he came to Hedgeapple in 2006, says, "They have to be on a rising plane of nutrition. If you screw up in this system, you're done; there is no compensatory gain."

Clemson University animal scientist Susan Duckett agrees with Barao.

"Successfully finishing cattle on forage starts with high-quality forage and grazing management,"

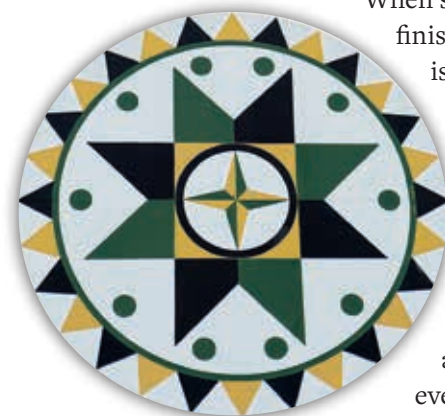
she says. "We like to keep them growing and gaining. There can be some fluctuation, but it is better if they stay on a positive rate of gain."

When she is forage-finished beef, her goal is 2.0 pounds (lb.) per day.

To keep the forage at its most nutritious, Fulmer moves the growing and finishing cattle to a fresh paddock every day.

"It all comes down to dry-matter intake and quality of forages," he says. "That's why these feeders get fresh forage every day — so they can eat constantly. It's palatability. If it is fresh and green and growing, they eat more of it."

Fulmer doesn't have a formula for stocking rate or paddock size. He points to a paddock and says, "If they don't clean this up, I'll make it smaller tomorrow. Or, if



they act hungry, I'll make it bigger. It is more art than science."

Fresh forages

Since their customers want beef year-round, that means Barao and Fulmer have to provide quality forage year-round. Alfalfa comes the closest to meeting that need.

"To us, alfalfa is a warm-season grass," says Barao. "It has the level of nutrition we need and the ability to stand up to grazing."

"The taproot will grow in the summer," says Fulmer. "Even in a drought year, we'll still get growth out of alfalfa."

While part of their stands are a mix of 75% alfalfa, 25% orchard grass, they do graze pure stands of the legume, which brings up the risk of bloat.

"We have lost cattle to bloat," says Barao, "but we try to keep them full and keep them on it all the time." He also says they wait until the dew dries before they move cattle to a fresh stand.

Fulmer adds, "We try not to graze it when it is immature; we try to get it a little more lignified."

While alfalfa is the star of the grazing show, Fulmer is a fan of orchard grass.

"We'll have grazing by late April. It depends on the weather in the fall, but usually we'll have grazing through October," he says. "It has palatability and stayability, it is leafy, and lasts pretty long in the field. Alfalfa can be a little persnickety."

The downside is it doesn't produce well in the summer heat, he says.

At times, Barao and Fulmer also grow some summer annuals, like sudex and sorghum-Sudan, and will get two grazings before fall.

They are experimenting with a high-sugar perennial ryegrass, but say they need more time before they decide whether to add it to the grazing menu for keeps.

Grazing strategies

While Barao and Fulmer also work to keep high-quality forages in front of the brood cows and nursing calves, they typically move them once a week, rather than every day. Cows and calves also have access to Kentucky 31 fescue part of the year.



"It is durable," says Fulmer. "It will take trampling and overgrazing probably better than any other grass."

He tends to avoid grazing it in the late spring and summer, when the endophyte in the older variety can decrease heat tolerance, milk production, reproduction and gains in the calves. It is a key part of the grazing system in the fall and winter, when endophyte levels are lower.

Fulmer says, "It is good for stockpiling. Orchard grass doesn't hold the quality in the winter like fescue. I usually have the fall-calving cows grazing it at least until January."

Even with their careful selection of forages and conscientious grazing management, Maryland



Above: Jay Fulmer moves the growing and finishing cattle at Hedgeapple Farm to a fresh paddock daily so they have the most nutritious forage possible.

Left: Scott Barao believes top-quality forage and top-quality Angus cattle are responsible for the popularity of the forage-finished beef produced by Hedgeapple Farm.

winters can be tough. For the 90 days or so when they don't have growing forage available, they rely on baleage, or hay harvested at higher moisture levels and wrapped in plastic so it ensiles. Most of their baleage is alfalfa or alfalfa-orchard grass.

"With baleage, we can make the first cutting earlier and capture the quality of the forage," says Barao. "If you put up alfalfa as dry hay, you lose a lot of the leaves. We are all about the quality of the forage. We could never get the gains we need on dry hay, even alfalfa."

He estimates the protein is around 18%, with 60%-62% total digestible nutrients (TDN), but

says, "The best indication of forage quality is animal performance."

Genetics

While carefully managed, quality forages are obviously a must in a forage-finishing program, Barao and Fulmer are just as conscientious about the genetics. The herd, which was formed in the mid-60s, is 100% Angus.

Barao says, "To produce consistency, we need the right genetics — genetics with a high probability of success."

He has no desire to change or add breeds.

"Angus cattle are a no-brainer," he explains. "The gene pool is deep enough to allow me to fashion a

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For quality forage year-round Barao and Fulmer rely on alfalfa. Though care needs to be taken to prevent bloat, the legume is drought-tolerant and they regularly graze stands of 75% alfalfa or greater.

retail product that meets consumer demands but stay within our resources.”

He continues, “I have a defined carcass that works.”

That carcass comes from a forage-finished steer weighing 1,150 lb. to 1,250 lb., or heifer weighing 1,050 lb. to 1,150 lb. Barao says the majority of those carcasses are on the high side of Select to low-Choice with 0.3 inches of backfat.

While Angus cattle are definitely the chosen breed, Barao gets more specific when it comes to the type of Angus he prefers. When he was with the University of Maryland, he managed the historic Wye herd in Queenstown, Md., and became intimately familiar with its genetics. He says that herd, closed since 1958, provided the traits that work for the 100-cow Hedgeapple operation, as well as their three cooperator herds.

“They are moderate-framed and easy-fleshing. Their \$EN (energy

dollar value index) is off the charts. That’s why they do so well in forage-finishing systems.”

He adds, “They have good udders and milk well.”

Fulmer adds, “Most of our cattle that do well are Wye-influenced.”

Tracking the pedigrees of the Hedgeapple cattle is no problem, because although the majority of the calves are marketed as beef through their retail store, all are registered.

Says Barao: “We’re Angus breeders. We do sell some bulls, and we need to support the Association. ... We keep good data and do ultrasound for marbling.”

He wants to continue to hear the same refrain from his customers when they stray and buy forage-finished beef elsewhere. That is, “Yours is so much better.”

Editor’s note: Becky Mills a cattlemaster and a freelance writer from Cuthbert, Ga.

Producing with a purpose

On a late May day, Scott Barao was piloting his Polaris Ranger® down the lane between paddocks, and swerved to avoid a small box turtle. Instinctively, he pulled over and put the little guy in the next paddock, hopefully out of harm’s way.

“Our goal is to be environmentally sustainable and economically sustainable,” comments Barao, the executive director of both Hedgeapple Farm and the Jorgenson Family Foundation.

The need for environmental sustainability is obvious.

“We’re farming in the Chesapeake Bay drainage basin,” says Barao. “We have a mile of river frontage on one of the major tributaries of the bay, the Monocacy River. Stewardship of the land is as important as stewardship of the animals.”

In keeping with that stewardship, in 1997 the Jorgenson Family Foundation put 250 acres of the farm in a permanent easement with the Maryland Environmental Trust.

Even more visible are the farm’s everyday practices — like frequent rotation of cattle to fresh paddocks and pastures, so the forages aren’t overgrazed and the ground subject to erosion.

There is also the new concrete-floored 100×160-foot feeding barn. Now, rather than feed baleage in a sacrifice paddock, where the ground can get chewed up, growing and finishing cattle eat baleage in the barn. Their manure is collected and stored until it is spread back on the pastures in the place of commercial fertilizer.

When John and Barbara Jorgenson formed the foundation in 1997, part of their mission was to provide a profitable and sustainable farming model in the Mid-Atlantic Region. That is also visible.

“We demonstrate to other cattle producers how you can keep a family farm 100% grass-based and as low-input as possible,” says Barao.

That mission is in the form of the Angus herd, and the product, forage-finished beef, sold in a restored 1700s log cabin-turned-market.

“We opened it in November of 2006. Then we were completely vertically integrated,” Barao says.

After starting with 40 or 50 head, they now market ground beef, steaks and roasts year-round from 120 forage-finished steers and heifers, both from the Hedgeapple Angus herd and those of their cooperators. In addition, they host tours and field days for producers so others can see their grazing, cattle management and environmental practices firsthand.



The restored log cabin at Hedgeapple Farm serves as the meat market and a meeting space for area cattle producers.

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