Scott Barao (left). executive director of Hedgeapple Farm and the Jorgensen Family Foundation Inc., and Ryan Bapst, farm manager, are trying to make the most of their resources by marketing grass-fed beef. The reconstructed log building that houses their meatcase, Barao says, is a piece of Maryland history.



Hedgeapple Farm markets its grass-fed beef through an on-site retail outlet that has established a niche market with a sizable customer base.

Story & photos by JANET MAYER

There are few of us who have not felt the pain at the pump when filling our gas tank or buying diesel fuel, and now with the rapid development of the corn-based ethanol industry, those in the business of producing beef are feeling an additional pinch with the escalating price of a bushel of corn. All of this will likely have a significant effect on feed and food production and, ultimately, farm income, making some producers take a closer look at grass-based production.

At Hedgeapple Farm near Frederick, Md., the increased price of corn will not directly affect their bottom line this year or in future years, since the operation is forage-based and the herd of Angus cattle is bred, grown and finished on a pasture program. The end product is marketed as a totally grass-fed, natural beef product through an onsite retail outlet that has established a niche market with a sizable customer base.

"The average consumer is tired of tasteless, tough meat. They want consistency and a safe, natural product, and we have strived to provide them with a healthy, great eating experience every time they serve our beef," says Hedgeapple Farm Executive Director Scott Barao, a retired Maryland livestock Extension specialist and former professor at the University of Maryland.

Operated as part of the Jorgensen Family Foundation Inc., the main objective of the operation and foundation is to demonstrate profitable and sustainable beef cattle production methods applicable to the small- to mid-sized beef cattle operations in the state and region by sponsoring educational programs that include consultations and technical workshops for area livestock producers.

The next level

Barao and Farm Manager Ryan Bapst maintain a herd of about 100 head of registered Angus cattle in what could be described as a pasture-to-dinner-plate program on the 300 acres that make up the farm. With about one mile of the farm's frontage along the Monocacy River, stewardship of the soil and water resources are especially important since it ultimately affects the Chesapeake Bay. To implement best management practices (BMPs) for improving water quality, the farm works closely with the Frederick Soil Conservation District, the Maryland Department of Agriculture and the U.S. Department of Agriculture (USDA).

"Establishing a forage-based operation seemed to be the answer to preserving soil and water resources for us," Barao recalls. "That was about the time Ryan came to work for us, which worked out well since he had a strong economic background and an interest in



► Barao and Bapst stay focused on a deliberate breeding and selection program that will consistently provide carcass traits that are compatible to producing a consistently tender and flavorful beef product.

forages and pasture management. He also has a good eye for cattle and knowledge of genetics. And with his management and help, we have been able to take the operation to the next level."

Owned by the Jorgenson family since 1956, the farm was initially operated as a dairy operation and later changed over to an Angus-based herd. Initially, the grass-based operation fed the cattle on forage for one year, finished them on grain for the last 60 days and sold the carcasses as halves and quarters of freezer beef, but this concept changed in the early 2000s.

"I think it was 2001 when we started seeing an increased demand for grass-finished beef," Bapst recalls. "Since we are a research operation, the decision was made to try a few to see how the flavor would be and how the animals would perform and what quality of carcass they would produce. We actually got a really good response from our customers. They liked the flavor and tenderness, and the cattle graded a lot better than we thought they would, with more marbling."

Bapst says he believes the cattle achieved better carcass quality since they took longer to finish on grass. Instead of harvesting at 1,100 pounds (lb.) at 14 to 15 months, he notes, the operation began harvesting at 1,100 to 1,200 lb. at 18 to 20 months.

The operation started conducting research projects on the pasture gains of the finishing cattle, used ultrasound and collected carcass data. They were so impressed by the results and positive feedback from their customers that in 2002 the operation completely changed over to finishing all of the cattle on grass.

Know your resources

Today just about all the farm acreage is in permanent pasture, with predominant forages including red clover and orchard grass, grazing alfalfa, tall fescue and bluegrass. All grasses are planted by no-till methods. Early May cuttings of hay are harvested as high-moisture hay bales and wrapped in plastic, with later cuttings harvested as dry hay with about four to five cuttings in an average season.

According to Bapst, emphasis is placed on high-quality forages such as alfalfa, which is the strong backbone of the operation's finishing program. "You have got to know your forages and know how to manage intensive grazing for an operation like this," Bapst stresses. "Nutrientwise, everything is on pasture and hay, with year-round free-choice mineral supplements that are high in

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Grass-Fed Opportunities (from page 79)

magnesium (Mg) and selenium (Se), one of the most importation things in our breeding program. Our cattle are usually on pasture for eight or nine months and then hay the remainder of the time."

Pasture is sectioned into paddocks with a portable polywire system, and cattle are moved every four to six days. When the cattle are in the finishing phase, they are put on the highest plane of nutrition, grazing only the best forage available, with more frequent movement through the paddocks and taking only the tops of the plants where the highest nutrition is concentrated. At this point they are moved every two to three days. Pastures are

usually given a 30- to 40-day rest between grazings.

"Unlike a feedlot where you can control variables, we are basically at the mercy of Mother Nature when it comes to rate of gain," Bapst says. "The cattle are weighed every 60 days, and we average about 1.9 pounds per day on the steers and

about 1.7 pounds per day on the heifers, but I have seen gains as high as 4 pounds a day and as low as half a pound a day. The weather, humidity and a lot of other things factor into the equation."

For cows to be part of the Hedgeapple herd, they must be moderate-framed, good-fleshing cattle with the capability of breeding back on pasture. Plus, they also must be able to produce progeny with a large ribeye, lots of marbling and the ability to thrive on natural grass forages.

Barao and Bapst stay focused on a deliberate breeding and selection program that will consistently provide carcass traits that are compatible to producing a consistently tender and flavorful beef product.

"As a beef operation, I don't think you are ever done in terms of genetics," Barao says. "We try to tweak our genetics within the context of this broad definition of what a cow needs to look like to work here and what a carcass needs to be to sell through here. The Angus breed has done a wonderful job in those respects."

Sires are also of great importance. The operation uses bulls that complement its genetics, with emphasis placed on those that are moderate-framed, easy-fleshing and heavy-muscled, with good carcass ultrasound data. Artificial insemination (AI) is done on a limited basis, mainly to create outcross sires, but cows are predominantly pasture-bred to bulls either from Hedgeapple breeding or by high-quality bulls that fit the program usually purchased by private treaty every couple of years.

"Our goal is to try to get as much as we can out of our resources," Barao says. "Since most of our acreage is in high-quality grass and hay, we are clearly better suited to finish cattle. So the decision was made to minimize our cow herd through the recent sale of 25 of

our bred cows to



cooperating producers. After those cows calve, we will provide their owners with bulls from our battery [of] bulls to breed back the cows. This way we are sure to keep our genetics in the program and hope to make the system more efficient in anticipation of finishing about 100 head a year."

Calving at Hedgeapple is twice a year, with winter calving beginning in March through late April and fall calving from late August to early October. With the finishing of both steers and non-replacement heifers, the twice-a-year calving system keeps a steady supply of carcasses needed to stock the freezers in the store.

At the retail level

The Hedgeapple Farm Market is located along a heavily traveled main artery between Frederick and Washington, D.C. Housed in a restored 1790 log building that was once a tavern in another part of the state, the building was reconstructed at the site last year.

Well-lit freezer cases line the walls, displaying a full line of vacuum-packaged, value-added beef cuts with numerous prepared beef entrées and specialties such as shredded beef barbecue, chili, beef jerky, beef sticks and sweet bologna sharing the shelf space. Prior to the grand opening of the store in fall 2006, the meat was sold out of freezers in the farm office in halves, quarters or as cuts in 50-lb. boxes that equaled about one-eighth of a whole beef.

The cattle are harvested and processed at a small USDA-inspected facility in Pennsylvania. The 700 to 750 carcasses are dry-aged for two weeks, cut to specifications, then vacuumed-packed and frozen. Each package of meat bears identification (ID) numbers of the animal that allow information on quality, breeding

The meatcase at the Hedgeapple Farm Market features a variety of grass-fed beef products, from lean ground beef at \$3.95 per pound to tenderloin filets at \$21.95 per pound. Interestingly, no products other than meat are sold at the location.



information and profitability to be traced back to the animal.

"We have a spreadsheet on each and every animal that tells us exactly where we are on net profit after processing," Barao says. "Starting with carcass data and the weight of each individual cut of meat, we know how many pounds of individual cuts come from a carcass, and we tweak it as long as the bottom line is there. With our

database we also keep track of what we sell, so we have a spreadsheet that gives info both in the door and out of the door, so to speak."

Every once in awhile, Bapst says, he will get an e-mail after Barao crunches the figures explaining that a certain cow needs to be put on the truck. "This is how you achieve consistency with your cattle," Bapst says. "It is a huge advantage to get carcass data, and all of this information has

put us on the road to achieving what we want to achieve."

Bapst says it's also a way to demonstrate to local producers that they can direct-market and make more of a profit. "That was in fact our original goal of starting the retail store," he says, "I feel we have been able to show them that this is something that can be achieved."

