

Using Angus genetics has helped Koch Beef Co.'s Beaverhead Ranch meet its long-range goals.



(PHOTO BY ANGIE STUMP DENTON)

Efficiency & ECONOMICS

Story by
ANGIE STUMP DENTON

Koch Beef Co. doesn't ask much of its 6,900-head Montana cow herd — just to wean an above-average calf every year, breed back within a short breeding season and graze its open flats, rolling hills and steep mountains with little if any supplementation.

Prior to 1988 the company believed the type of cow that could achieve those goals for its cow-calf division, Matador Cattle Co., was a good ol' Hereford. When Ray Marxer became manager of the company's Beaverhead Ranch, located near Dillon, Mont., he wanted to design a more efficient cow.

Marxer says beef producers need to look at the efficiency and economics of raising beef and get back to reality. To get a heavy weaning weight and yearling weight you need to optimize not maxi-

mize, he explains. Today the Matador herd is about a 50-50 Angus-Hereford cross. "The black-baldy cow is very efficient for us," Marxer says.

After incorporating Angus bulls into their breeding program, Marxer says, the calves weighed 35 pounds (lb.) heavier at weaning compared to calves sired by Hereford bulls. The calves were 70 lb. heavier when the black-baldy females were bred to the same Angus bulls as the Hereford females. Marxer also attributes the Angus genetics to reducing the fall-out rate of young cows. "Our first-, second- and third-calvers are 97% bred this year, and we'll have more than 80% of the entire herd calve in the first 21 days," he adds.

Wanting Angus advantages

The Angus qualities that enticed Marxer to change the company's breeding program were the mothering and

milking abilities of the Angus/Angus-cross female and the breed's moderate size, lower culling rate and marbling ability.

The goal of the breeding program is to produce steer calves that fit the meat-consumer's needs, using the least amount of resources to do it while producing heifer herd mates that will be productive and efficient cows in the ranch's environment.

Each group of cows, depending on their breed make-up, is bred to an Angus or Hereford bull. The 3/4 Angus-1/4 Hereford cows are bred to Hereford bulls, and the 3/8 Angus-5/8 Hereford cows are bred to Angus bulls.

John Maki, Beaverhead County Extension agent, has watched the ranch grow and change during his 32 years in that position. "The ranch has become very progressive," he says, especially under Marxer's management. "Ray is not scared to try new things. Adding Angus to



"Cows were designed to graze," says Ray Marxer, manager of Matador Cattle Co.'s Beaverhead Ranch. An Angus-Hereford-cross cow is the genetic package he thinks can efficiently perform in southwestern Montana. (PHOTO BY SUE MARXER)

its breeding program helped improve its salable product — producing a more desirable carcass and heavier weaning weights."

The bull battery

Marxer wants a sound set of bulls that fit his breeding plan and help tweak the Matador cow herd. "If you don't have an end product in mind and you're just buying bulls without a target," Marxer says, "you're sure going to miss."

When selecting potential herd sires, Marxer examines their expected progeny differences (EPDs). "EPDs work," he says. A believer since 1991, Marxer selects for balanced traits with an emphasis on calving ease and carcass traits. "I generally go back at least two generations to minimize variation," he explains.

Another way the company is adding consistency to its cow herd and end product is by purchasing sire groups of half brothers. The Angus bull battery currently includes seven sire groups, with the majority being out of three high-accuracy, proven sires.

Marxer says will use a bull, on average, for seven breeding seasons, so structural soundness is important when he visually evaluates a potential herd sire. During a

bull's tenure he is expected to cover lots of miles, so he must have a good set of feet and legs.

Mature daughter size is another trait considered by Marxer. "Over the years physiologically the carcass has not changed much," Marxer explains. The bigger the cow the higher the maintenance requirement and the longer her calf needs to be fed at the feedyard.

Other selection criteria include environmental considerations. Marxer and his crew expect the cow herd and bull battery to survive in all types of environments and terrains.

Marxer says he's not hesitant to try different seedstock sources on cow families or to experiment with new bloodlines. Breeder and data integrity are important to Marxer when making purchasing decisions. He looks for seedstock producers who have collected data from a statistically good test situation.

Marxer has purchased bulls from several seedstock sources in the past. He buys at production sales, through private treaty and by contracting specifically bred bulls to meet his needs.

Targeting efficiency

During Marxer's tenure as general

manager he has tried to shorten the breeding and calving seasons. Bulls are turned out June 15 and run with the cows for 60 days.

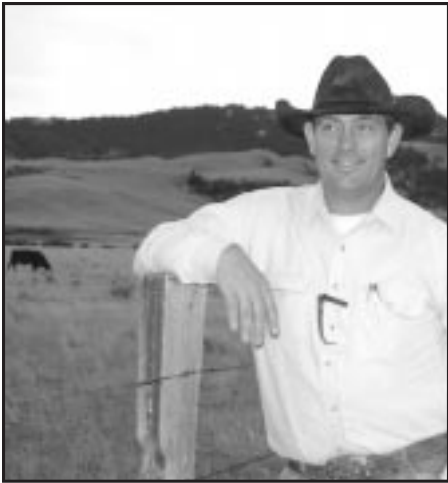
To help shorten the calving interval, Marxer and his individual ranch managers have implemented a stringent culling procedure — if a cow is not pregnant, she's shipped. He says now 81% of the 6,900 cows calve within the first 21 days.

Since 1991 all replacement heifers have been synchronized and time-inseminated using no heat detection. Marxer says about 63% of the heifers, on average, have calves sired by artificial insemination (AI).

Identify the good and the others

With a cow herd of more than 6,900 cows it would be easy for Marxer and his crew to be happy with averages and not waste the time to individually identify or track calf performance, but they think identification helps them meet their goals.

In the big sky country of Montana identification is important not only to individually identify an animal but also to prove ownership. All calves are branded



(Above) "I've had a tremendous opportunity to learn and experience things," says **Ray Marxer**, who has been manager of Matador Cattle Co.'s Beaverhead Ranch since 1990. He enjoys "being a steward of God's creation, being an influence on young people's lives, and getting to be a genetic designer of an end product." (PHOTO BY ANGIE STUMP DENTON)

with Matador's brand — the square and compass, the first brand registered in Montana.

Instead of having a hodgepodge of calves, Marxer and his staff have developed a system of ear tag notches to individually identify sire groups and calves that are a result of AI. The calves are identified at birth or branding time according to their sire or sire groups.

Weaning time

In early October the Koch cowboys round up the herds and start the weaning process. Still fairly young, they ship the 6-month-old calves to the ranch headquarters and place them in 200-head pens with two nursemaids — small yearlings held over from the previous year. The nursemaids act as baby-sitters and help calm the newly weaned calves and lead them to feed and water. After backgrounding the calves for 30-45 days Marxer ships the calves south to wheat pasture, a backgrounding lot or straight to the feedlot depending on their size and current market conditions.

Over the years Marxer has sent groups of calves to Koch's four feedlots in Kansas and Texas. The resulting end product has been marketed through Koch's branded beef program.

Although Koch has decided to sell its feedlots and branded beef program Marxer plans to continue to retain ownership of the Montana calves. He hopes to negotiate a partnership and to provide animals for its meat program. "We have a very good product that we are continuing to improve," Marxer says. "Our vision

and genetic program will fit a number of the value-added programs."

More than averages

Koch has been requesting and collecting carcass and feedlot data since 1985.

Kyle Hardin of Koch Beef Co.'s feedyard near Ulysses, Kan., has been feeding groups of Beaverhead Ranch calves since the spring of 1993. Over the years, he says, the calves have improved greatly in feed conversion and average daily gain (ADG) and have increased out weights. "Ray has done a very good job of choosing genetics," Hardin says. "He understands the Angus breed and has increased performance in the feedlot and improved the carcass quality of his calves, because he took the time to understand the breed and evaluate (potential) sires."

According to Marxer, the flow of information has been one of the biggest challenges facing the beef industry. He says all producers need to realize the importance of collecting feedlot and carcass data. "Utilize the data and turn it into knowledge to become more efficient," he suggests. "If you get carcass and feedlot data, be courageous enough to use it. If you don't try to improve, you won't get the advantage."

Feedlots also can benefit from data collection. Hardin says when he knows the history of a group of calves, he can do a better job feeding the cattle and can get them marketed at an optimum time. "Nothing is better than past performance to predict what they're going to do tomorrow," he says.

Learning experiences

Marxer says as the company has retained ownership, it has learned valuable lessons, especially the importance of a good health program.

"Many producers are reluctant to spend dollars on health and backgrounding programs," he says. "When Northern cattle that have never been challenged go into a feedlot situation, they don't have an immune system developed." Because of that, many producers who do not have a good health program and don't background the calves before shipping to the lot experience a high percentage of death loss or sickness when retaining ownership for the first time.

He says a good health and backgrounding program, or at least bunk-breaking the calves before shipping, has to become status quo in every commercial cow-calf operation. "The buyers will come back looking for those calves next year," he says.

Hardin agrees, saying the fewer times a calf has to go through a chute at the feedlot, the better its performance will be.

Raising the bar

Never satisfied with the current level of performance, Marxer continues to select and cull to improve the performance and efficiency of the Beaverhead cow herd.

Inferior cows are culled based on the weaning weights of their calves. The Koch crew collects individual weaning weights of first- and second-calf heifers' calves. The weights are entered into the computer and calving data sheets.

INSIGHT:

What is *the* Matador?

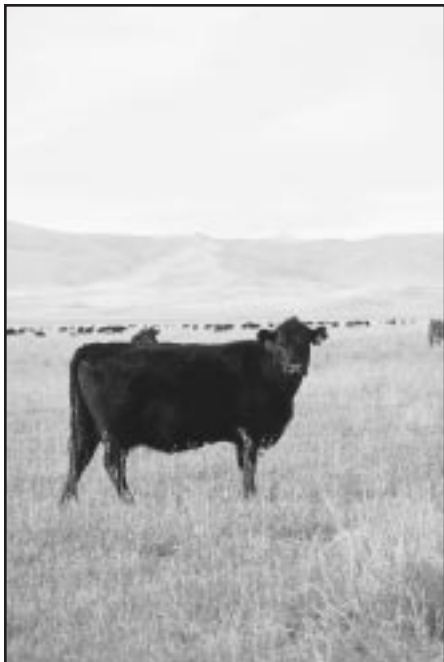
Koch Industries, the second-largest privately owned corporation in the United States, has been active in the beef business since the early 1950s. Its cow-calf division, Matador Cattle Co., now owns ranches in three geographic locations — Montana, the Texas Panhandle, and the Flint Hills of Kansas.

With more than 450,000 acres of land, 12,000 cows and 18 cowboys, Matador is one of the top 10 cow-calf producers in the United States. The company also custom grazes stocker cattle at all three of its ranch locations.

The company's Montana division — Beaverhead Ranch — includes 250,000 acres split into 150 individual pastures. The terrain varies from wide-open flats near the headquarters to elevations of 9,000 feet.

Fred Koch, founder of Koch Industries, purchased the first part of the Montana ranch in 1951. Today the ranch spans more than 90 miles.

Ray Marxer, Beaverhead Ranch manager, says as the company has grown, its philosophy has changed "to be more responsive to the market and to consumer demands, while at the same time being the lowest-cost producer."



Using Angus bulls has helped Matador Cattle Co. increase weaning weights by more than 35 pounds, improve fertility by increasing settling rates and decreasing the length of breeding season, and improve feedlot and carcass performance.

After evaluating the weaning weights, Marxer establishes a minimum standard. Cows with calves that perform below the minimum are marked with a notch in their tag. After a cow gets two notches, she is either sold or she goes into Koch's terminal herd and is bred to a Charolais bull. All calves from the terminal herd are sent to the feedlot.

The company does not adjust weaning weights to 205 days. Marxer wants proof that a cow can perform in the ranch's environment and not give an advantage to a cow inferior in reproduction.

"Reproductive performance drives profitability more than anything else we



To decrease forage costs Marxer has implemented swath grazing. Irrigated hay fields near the ranch headquarters are swath grazed and used as winter pasture. After swathing the second cutting the hay crew rakes two windrows together and bales every other row leaving the rest for winter grazing. (PHOTO BY ANGIE STUMP DENTON)

can do," Marxer says. "If your feed source and feed costs remain constant, reproductive performance is the biggest profit factor."

"Producers can influence their cows' performance greatly by management practices," Marxer says. That is why he gives a cow two years to prove herself.

Low-cost producer

Feed is the No. 1 cost of most ranches. "We've tried to address that and attack it, spending most of our energy and time being innovative and trying to reduce the feed cost per cow." In the last eight years Marxer and his staff have cut feed costs by 25% and raised weaning weights by 110 lb. They have increased stocking rates 8% (managing 8% more cows on the same amount of land).

Marxer's management strategy is to feed little if any supplement. "God made a cow to graze," Marxer says. "Sometimes in the beef industry we forget that niche. It's the cow's advantage as an animal to convert less-quality forage into high-quality protein."

Maki says Marxer has used a total management approach to improve the company's rangeland. During Marxer's tenure he has incorporated several management strategies to care for the land

and wildlife, which has earned the ranch recognition as the National Cattlemen's Beef Association's (NCBA's) Region V Environmental Stewardship winner this past year.

One of the strategies used to decrease forage costs is swath grazing. After swathing the second cutting on irrigated hay fields near the headquarters, the hay crew rakes two windrows together and bales every other row, leaving the rest for winter grazing. According to Maki, the cows start at the end of a windrow and move toward the other end.

Envisioning the future

"Koch sees an opportunity in agriculture," Marxer says. "It's a low-margin low-return business; but if you get all the segments together, you can minimize the waste and reduce excess. There's opportunity to profit."

Developing partnerships, Marxer and his crew hope to do just that by raising Angus-influenced feeder cattle that will be efficient and perform in the feedlot and on the rail.