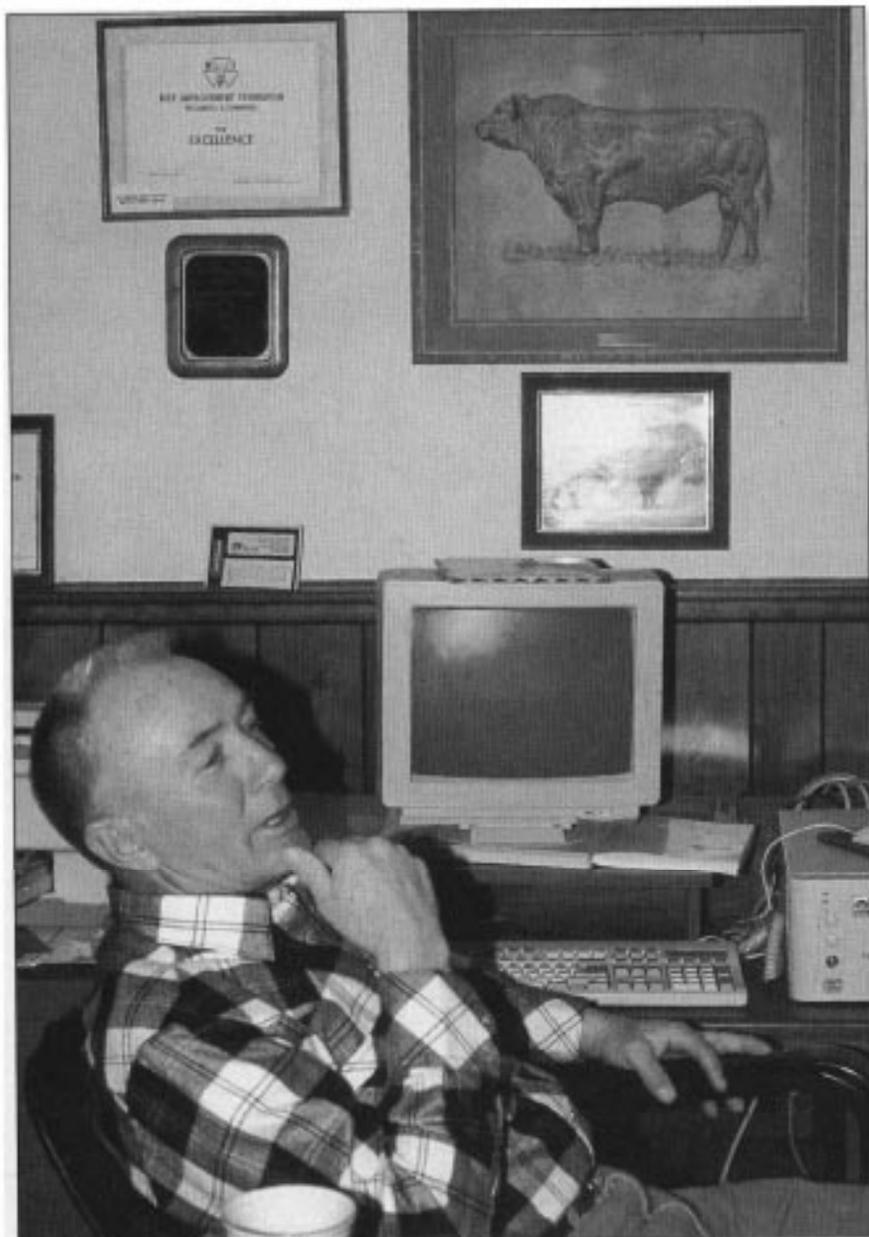


# The Road To CONSISTENCY

*Not all Angus are created equal. Shoshone Angus in Wyoming has implemented a breeding program with a goal of producing uniform cattle packed with production efficiency*

BY BARBARA LABARBARA



*Cattle genetics and a computer are the tools of Larry Leonhardt's trade. He has computer data on every animal born on his Wyoming ranch since the 1950s.*

**W**ith a cigarette in one hand, Larry Leonhardt points the other at me and asks, "How much do you know about cattle?" His butch haircut and wiry physique fit well with his intense, almost intimidating, demeanor.

I tell him I have "some knowledge." I'm sure he has his doubts.

Over our two-day interview Leonhardt took me from my horse and buggy days of cattle genetics to a high-tech, complicated program. As he talked, showed graphs, pedigrees, records, tables, pictures and talked some more, the smoke gradually disappeared. Not the smoke from the cigarettes, but the cloud of misunderstanding.

In fact, Leonhardt turned out to be a nice guy with a breeding program that is effective. He is breeding cows to maintain genetic balance which results in production efficiency. Simply stated, he breeds "like" cattle to "like" cattle with a result of "like" cattle.

Located in the Big Horn Basin near Cowley, Wyo., Leonhardt began breeding cattle in the mid-1960s to supplement his farming income. His irrigation water comes from the Shoshone River and operating funds from the Shoshone First National Bank. It was only logical to name the herd Shoshone Angus.

Besides the cattle, Leonhardt raises sugar beets, corn, malt barley, dry beans, and alfalfa on 1,000 acres of irrigated river bottom ground that he has owned and rented for 34 years. During the summer, he runs most of his cows on pasture at Red Lodge, Mont.

He and Betty, his wife of 40 years, have five children and 18 grandchildren. Sons Gary and Michael work with him on the ranch.

Because of time restraints from farming, he does not artificially inseminate his cows. He calves in the spring with birth weights in one population of his herd ranging from 75 to 80 pounds and 85 to 90 pounds in the other group.

His records date back to the 1950s. He has computer data on every animal born at Shoshone Angus.

In the beginning he and his brother, Charles, went to highly advertised breeders and bought their best. They paid up to \$1,000 for cows with a dream of selling a \$1,000 dollar bull. They reasoned they could not do it without an expensive cow.

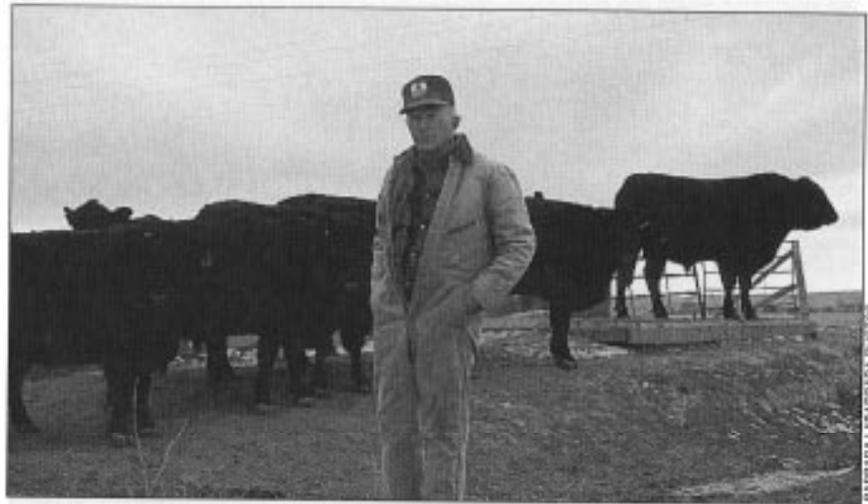
When that program started to fall apart, the brothers went searching for new genetics. They visited James B. Lingle, breeder of the Wye Herd at Queenstown, Md. Lingle came from the dairy industry and never liked small-framed cattle. What the Leonhardts saw at Wye were bulls they did not like and feminine cows that produced big, growthy calves.

The Leonhardt brothers discontinued their cattle partnership in 1969 when Charles moved to Montana. In the early '70s, after adding the best of the Wye and Jorgensen herds to the best of his herd, Larry loaded his herd's genetics with growth genes. His selection process for higher performing, bigger cattle began.

He was on top of the Angus world from 1974 to 1978. He raised Shoshone Intent, Viig, Shanigan, Shannon, and Titan. Shoshone cattle were everywhere. Leonhardt, who had been in debt all of his life, finally was enjoying good financial standing and reputation. Shoshone Angus became nationally recognized, but Leonhardt did not live happily ever after.

He was breeding for the biggest bull that would grow the fastest. In the process his cows were also getting larger. The result was a loss of production efficiency because of genetic imbalance. It takes approximately three generations to see a change in the breeding direction. Consequently the breeder who gets into trouble the quickest is the one who uses the most extremes.

"My way of thinking changed in 1978 when I wound up with a bunch of big cows that were hard to breed and had little milk," says Leonhardt. "I realized some of my better cows were out of bulls I



***"Your cow herd should stand behind your herd sire," says Larry Leonhardt. "I like cows to be feminine and to maintain environmental adaptability."***

sold because their calves were too small." During this traumatic time, another misfortune hit the Shoshone herd Shoshone Titan FD60 was found to be carrier of osteopetrosis or marble bone disease.

"One day my cattle were in demand," says Leonhardt, "and the next day everybody was avoiding them like they had the plague."

He spent four years and much of the money he had made in the '70s searching for carriers of the disease in his herd. The majority of the progeny from Titan were proven clean. His full brother, Viking, was genetically defect free.

"I did everything I could to clean up the mess," he says. "I felt I owed it to the people I had sold cattle to. It was a hell of a burden."

Finally when he had done all he could, he realized he was no longer improving cattle. It had been an emotional, educational experience but it was time to move on.

**Henry Thoreau once said,** "The man who goes alone can start today, but he who travels with another must wait until the other is ready." Leonhardt came to believe that purebred breeds each have their own peripheral limits. He decided to jump off the boat and become an island unto himself.

Who would buy his cattle as they leveled off in frame size? he wondered. He reasoned that his customers sold their cattle by the pound so why couldn't he? However, to survive, costs would have to be kept at the same level as the commercial producer.

As far back as 1926 it was written that the principles of the successful breeder are exceedingly simple – isolate and fix a good type by careful selection and close-breeding.

Thus began a quest for a good type, Leonhardt knew he wanted balanced production efficiency. He could use close-breeding to improve compositional consistency in his cows. The next challenge was to find the cattle to do it. His cow herd had been closed since 1971. He has only purchased two bulls since 1981. He went through his herd, one cow at a time.

The job of a functional beef cow has not changed since the 1860s. Leonhardt was determined to raise that functional cow.

The female's role in life is to maintain environmental adaptability. The male's role is to maintain overall vigor. Sexual distinction, a masculine, vigorous male and a feminine, adaptable female, is vital to reproductivity.

Smaller cows are easier to maintain.

They have renewable maternal qualities and built & hybrid vigor. To maintain fertility, there must be balance. When a cow raises a calf bigger than her – that is efficient.

Based on the above, Leonhardt made his ideal type selection. He isolated two populations within his herd which made his peripheral perimeters smaller. Within those groups he began breeding type to type. The more you close breed the more alike your cattle become.

Next, he needed an Angus bull to complement the cows he had selected. He chose a bull whose progeny growth ratios were 100; average within the herd. The bull had good sexual distinction, structure, and had descended from the most prolific cow family in the herd.

Leonhardt used him on a daughter. The first bull calf weaned 10 percent below average, which is genetically normal. That bull calf later produced progeny with calving-ease traits; he also had the ability to outbreed himself. His daughters were not big cows but they had appropriate capacity and their udders were perfect. They all looked just alike.

Leonhardt had what he wanted but needed to intensify his breeding program further. He did more close breeding which resulted in the bull, Shoshone Echo. Echo was born in 1987 and is 39 percent in-bred. Leonhardt bred him to his son's daughters and other look-alikes in the herd. The results were true, balanced homogeneous values.

This close breeding program was started with one cow. Today 100 yearling heifers, or about two-thirds of the Shoshone herd, are close bred with little difference in conformation or performance.

**It's a continual refining** process to keep the strengths in the herd. Currently, Leonhardt's 400 cows trace back to only a few of his original cows. He still struggles with the size of cow he wants and will continue to maintain two herd populations within his herd.

When asked if he would ever get done, Leonhardt answers, "Why would I want to? Nature never gets done breeding deer. They do not change, they are just renewed."

He can renew his cows with continuity. That can't be done with crossbreds. He has predictability. He is putting all of his eggs in one basket by breeding cattle that are all alike. He sees



*Angus cattle graze on cornstalks in the winter months at Shoshone Angus in Wyoming.*

only one problem: if nobody wants his kind of cattle, he is out of business.

"I've been lucky," says a smiling Leonhardt. "I keep a large population of cattle to increase the chances of success. It is working much better than anticipated. The good things outweigh the frustrations."

Shoshone cattle are sold today at private treaty. He prices them based on their genetic worth to him and the development of his program. Anybody can buy any cow he has if they want to spend the money.

"It is a weird thing, people are not too interested in my bulls," says Leonhardt. "But they sure like my cows. They will pay big bucks for a cow and won't even look at the bulls. My bulls are male equivalents of my cows. My bulls are ordinary, but so are my cows and I guess I am too."

The cows are gleaners of his farm's crop residues. They graze on the corn stalks and beet tops. The heifers are dry lotted in the winter and fed only feed raised on the farm. Health problems are reduced because his female herd is closed.

Leonhardt refuses to establish rules he would have to break when it comes to culling. "I'm breeding for the future rather than culling what's already been done," he says.

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