

A Numbers Man

Jon Ferguson's infatuation with numbers and computers helps identify the strengths and weaknesses of his beef operation.

BY TROY SMITH

Jon Ferguson is not your typical commercial beef producer. At least, this writer has met no other nuclear engineer turned cowman.

But true to his engineering background, Ferguson is a numbers man. He collects, processes and analyzes production records in mathematical fashion, using the numbers to plot the course for his family's operation in northeast Kansas.

Known as Ferguson Brothers Inc., the firm's history dates back to the 1940s when the original Ferguson brothers (Jon's father and two uncles) started buying cheap grass in the Kensington area. For more than two decades, the brothers produced cattle and farmed, collectively. The needs of the partnership and each family were served by a single checkbook.

But with a growing number of young Fergusons involved, the clan outgrew that checkbook and the partnership, leading to incorporation in 1972.

That also was the year that Jon Ferguson returned to Kensington. Despite his study of nuclear engineering at Kansas State University, and work toward his doctorate at Massachusetts Institute of Technology, Ferguson wasn't convinced that he would be satisfied with a nine-to-five job.

Jon returned home just about the same time that his sister, Janice, and her husband, Lynn Lee, decided they, too, were interested in the family operation.

"A cousin came back shortly after that, so we were stretching the old family farm quite a bit," Jon says. As a result, they di-

vided the operation, with Jon's dad, one uncle, Lynn and himself retaining the Ferguson Brothers name. Janice kept the books, while his dad and uncle counseled Lynn and Jon on management.

However, Lynn's allergies were aggravated by hay and grain dust. He decided to go back to work as a computer analyst with a local firm. He's still very much involved, but Jon has been making most of the day-to-day management decisions since 1980.

With some persuasion from his brother-in-law, Ferguson has become adept with a computer. Complementing his infatuation with numbers, computerized recordkeeping has allowed Ferguson to analyze his records on birth and 205-

day weights for calves, along with cow body condition and metabolic weight. By studying the numbers, he knows what kind of cow will work to complement his resources.

"We are not margin operators, like cattle feeders or packers, so our costs are pretty well fixed," Ferguson explains. "With input costs fairly constant, efficiency becomes pretty important."

They farm a little more than 2,000 acres in a two-crop rotation of wheat and milo. Alfalfa is raised for protein needs, along with some forage sorghum.

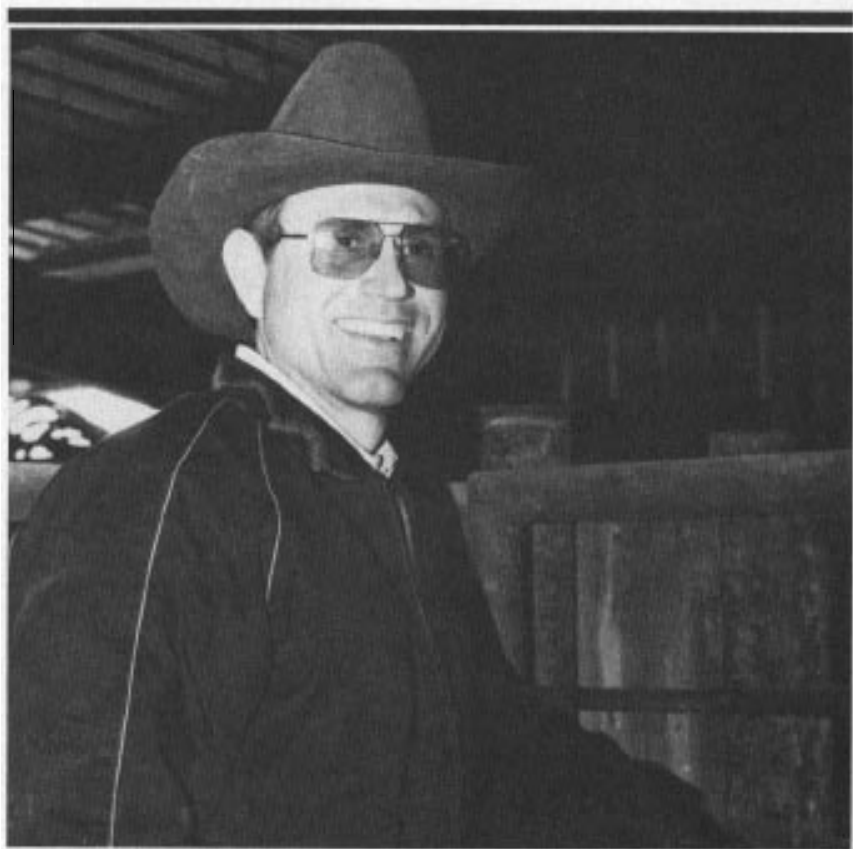
"With a limited amount of grass available, we need most of it for summer grazing," Ferguson says. "Milo stubble and ammoniated wheat straw are our cow feed. Our cows have to be able to winter on that kind of low quality forage, with a minimum of supplement."

When Ferguson first came back to the ranch, the cow herd consisted of black and black-baldy cows. He experimented with crossbreeding, using Simmental bulls. He succumbed to what he calls the "My, don't those heifers look nice" syndrome, and kept some halfblood replacements. But when those females were bred back to Simmental bulls, the results caused concern over those calves and their ability to finish and marble.

"We still use some Simmental bulls, but all of our crossbred calves are terminal," Ferguson adds. "Right now, we're only interested in Angus replacements. There's just no question about it. Angus females are best for the maternal side of a terminal crossbreeding program. Looking beyond maternal traits, the real Angus advantage is predictability, and they pass predictable carcass traits on to their calves. As more and more carcass data becomes available, that advantage becomes more significant."

For the sake of efficiency, Ferguson favors a cow that will reach a mature weight of 1,100 to 1,150 pounds by three years of age. He doesn't see a need for a lot of leg, but wants length, depth of body and volume. Milk production should be adequate to fuel her calf's maximum frame growth until weaning. And she should maintain reasonable body condition while raising that calf.

"Reasonable disposition and mothering ability are important, but I want longevity too. We don't cull cows on the basis of age, if they continue to produce, until age 13. That's another advantage of



the moderately sized cow. We find the smaller cows have a little more longevity," Ferguson adds.

Ferguson plans to replace 15 percent of his herd each year, culling for teeth, udders, structural soundness and inadequate production. Replacement heifers are bred AI once, to Angus sires, then turned out with Angus bulls for 45 days. That short breeding season puts heavy cull pressure on conception, but the last season found 88 percent of heifers pregnant.

"The short season reduces labor demands and makes for fewer worrisome nights during calving," says Ferguson. "The down side is that we have to save a few more heifers and push them some to have them weighing 800 pounds and ready to breed at 13 months of age."

In 1990, Ferguson began breeding some of his older cows to Angus AI sires, but he uses Simmental bulls for clean-up. Replacement females are chosen from among the heifers sired through AI.

Before the heifers start calving in early March, they are brought into a large lot adjacent to Ferguson's calving barn. The heifers are confined in the barn each night, where they can be watched easily. The older cows, whose 60-day calving season begins in mid-March, calve in pastures designated for that purpose.

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— Jon Ferguson

In an age when many producers are moving their calving season up into February, or even January, Ferguson is content to wait until March and April. That appears to be the most efficient time.

"Later calving allows us to carry our mature cows through the winter in lower average body condition. Still, good grass in May and June provides a good flush prior to breeding. We'll get a 94 to 96 percent conception rate on the older cows. Earlier calving means an earlier breeding season and both require supplemental feeding at greater cost," Ferguson adds. "We have to be careful to keep the cows from getting too thin during the winter, but we don't want them fat. A body condition score of five is just about right."

Of course, later calving means lighter calves at weaning time. However, Ferguson calves are backgrounded at home where their compensatory gain provides returns that rival early-born calves.

Ferguson says the heifers and cows have little calving difficulty and birth weights average 82 pounds overall. After years of keeping records, he has charted the trends for dystocia related to birth weight as a percentage of cow weight.

"When a calf's birth weight reaches 7.75 to 8 percent of the cow's weight, you can look for some difficulty. When it reaches 9 percent," he warns, "you can look for Caesarean sections."

While Ferguson finds genetics to be challenging, price/risk management is just as demanding and just as important. He says it's easier to manage risk for a storable commodity, like grain, than for cattle. He believes value-based marketing is where the industry needs to be. Retained ownership fits that concept, but until value-based marketing becomes a reality, he's not putting all his eggs in one basket.

"We sell a few as calves, but background the majority, selling them as yearlings. And we'll retain ownership on some. We've also taken advantage of the demand for Angus females by selling some replacement quality heifers," says Ferguson.

Active in the Kansas Livestock Association (KLA), Jon Ferguson is a past chairman of the association's cow-calf-stocker council. He is quick to admit that his participation has involved more than his contribution to the betterment of the industry. Ferguson says rubbing shoulders with other cattle people has made him a better producer.

"The contacts made through KLA

have been invaluable," he adds. "I met Ken Stielow (see *Angus Journal*, Dec. 1991) that way and was introduced to his work in carcass trait testing. With Ken's assistance, we've initiated some testing of our own, using young test sires on some of our best producing cows. It's just one more way to gain information so we can make intelligent decisions."

Gleaning information from every available source is a practice Ferguson has honed deliberately. That's why he finds Integrated Resource Management (IRM) so appealing. Sharing problems and possible solutions with other IRM advocates have helped fine-tune the Ferguson operation.

The introduction of artificial insemination and its proper management came as a direct result of the IRM process. More recently, IRM has assisted in personnel management; no small matter now that the operation includes three full-time employees and some part-time help.

While labor and some resources would be adequate for an expanded cow herd, the primary factor delaying expansion

from 700 to 1,000 head, is the availability of grass. Unable to increase pasture acreage at present, Ferguson has sought ways to make more efficient use of the grass he has now. Planned pasture rotation using short duration, high intensity methods is, Ferguson believes, increasing the lands carrying capacity.

"These are the things that can come from interaction among IRM group members. It's okay to look at new ideas with a little skepticism, but don't discount a new idea out of a fear of change. The art is picking ideas that complement your own program and that's what IRM is all about," says Ferguson.

"I've always liked to look at the numbers. With the help of my computer, I think I can use them to identify the strengths and, more importantly, the weaknesses in our operation. The next trick is to do something about those weaknesses. You may have to make some changes, but I don't fear change anymore. And I'm not afraid to ask myself why we do things a certain way. If there is a better way, we had better be looking for it."