The Power of MIDLAND

GrowSafe technology helps analyze feed efficiency on an individual animal basis and identify specific animals that consume less feed while retaining competitive gains.

Forty miles southwest of where Leo McDonnell and Steve Williams stand, the Beartooth Range rises abruptly from the valley, blotting out the last traces of sunlight.

It is a still, perfect evening, and their cows have fanned out across the prairie, grazing the dry, native grass that spreads across the unbroken landscape.

The father-son duo spends a lot of time thinking about grass because they know their livelihood depends on their ability to understand the connection between grass and their cows and to use both of them efficiently to produce products for the marketplace.

Leo and Steve are deeply rooted in the ranching business, and for three generations, their family has been a catalyst of progress in the cattle industry.

The family pioneered the performance revolution in the 1960s when the McDonnells launched Midland Bull Test, known around the world as the epicenter for genetic and performance evaluation.

They've also helped revolutionize seedstock marketing and production, and as the industry enters the 21st century, they are about to do it again.

This time they've introduced a new technology — called GrowSafe Systems®. This system will finally allow cattle producers, for the first time ever, not only to analyze feed efficiency on an individual animal basis but also to identify specific animals that consume less feed while retaining competitive gains.

"This test could lead to vast improvements in the feed efficiency of cattle. We will now be able to identify individual animals with greater feed efficiency and propagate those genetics across the country," says John Paterson, Montana State University (MSU) beef Extension specialist. Together Midland, Texas A&M University and MSU are working together to evaluate the data.

Installed last year at Midland, the GrowSafe Systems allows Midland customers to identify animals that grow as quickly as possible, eat the least amount of feed, require minimal medical treatment and produce the best grading carcasses — consistently.

Animals with good gains but low feed intake have a low or negative residual feed intake (RFI). Animals with poor gains but high feed intake have a high or positive feed intake.

The objective is to find negative RFI bulls.

"We can now select cow families and upgrade heifer development practices to improve our feed conversion on the ranch and put more dollars in our pocket."
— Leo McDonnell

How it works

After cattle are identified with electronic ID tags, they are placed in pens with GrowSafe Systems feed bunks.

Each time an animal places his head into the bunk, the system activates and records the amount of feed the animal consumes and the length of time it is present at the bunk. This information is then transmitted in real-time to a data collection computer at Midland headquarters.

"This technology is a no-brainer. It identifies the animals that have competitive average daily gains but consume less feed. So which animal do you want: the one that consumes more feed and has less gain or the one that consumes less feed and has more gain?" Paterson says.

Researchers estimate the heritability of feed efficiency is above .40, which makes it a trait that is easily transmitted to offspring. Being able to identify this trait allows ranchers to make genetic progress more quickly.

What it means

By selecting cattle with low RFIs, a producer also has the potential to reduce a cow herd's feed intake by as much as 10-15% or about $60 per cow and, potentially, by an additional $60 to $70 once an animal enters the feedlot.

"By using our GrowSafe Systems technology to identify superior performance cattle, you have a rare opportunity to reduce feed costs while maintaining the same level of production," says Leo. "You can now compare bulls within a herd and say that this sire group is more efficient than this group over there. That's the beauty of this — we can now select cow families and upgrade heifer development practices to improve our feed conversion on the ranch and put more dollars in our pocket."

The new technology will also help Midland move into a new area of evaluation in the coming years, allowing the test to evaluate the performance and efficiency of heifers, not just bulls.

Interested producers can use Midland's GrowSafe System to identify efficient females in order to make continuous strides in genetic improvement and prevent inefficient animals from entering their cow herds.

"We are going to breed these heifers and look at about three lactations; then we will determine what the profitability of this is," says Paterson.

For Steve, the technology is more than just a way to improve efficiency. It means ranchers have an enhanced ability to remain on the land for future generations.

Steve says, "Whether you succeed or fail in the business depends on how you utilize your resources. That's why we're putting so much emphasis on efficiency and RFI. We're finally able to measure traits that are crucial to the rancher's profitability, and we're helping the industry get away from the hype and glitter that's entered the business in the last 10 years." **HW**

Editor's Note: *This article was provided by Angus Productions Inc. Creative Media.*