

# RFI - IT'S ALL ABOUT THE COW

The greatest opportunity for ranchers' long-term profitability lies in our ability to efficiently and productively *convert grass to pounds* and profitability. To do that it takes a fertile, efficient, *productive cow* with longevity... **"IT'S THAT EASY!"**

*What excited us about RFI is it is the first time in many years that we have been given a selection that is about the cow/cow herd. The benefit of selecting for RFI means better utilization of grass, more drought resistant females and improved nutrition utilization. These benefits compound to ultimately result in improved fertility and longevity while not compromising weaning weight.*

- Highly heritable - 35%.
- Efficient cattle are quieter cattle.
- Research has shown that young bulls tested for feed intake and RFI will have a genetic correlation of .90 for the same genetic improvement in the daughters retained in herd use.
- Research has shown that the most efficient 1/3 of cows in your herd will consume up to 20% less forage than the least efficient 1/3 of cows in your herd. Australia, Canada, Texas A&M, University of Florida, University of Missouri.
- Size doesn't matter - just because a cow is small or fat doesn't mean she is efficient in her feed utilization.
- There is a strong, positive genetic correlation between post-weaning RFI as a calf and feed intake as a mature cow. *\*(Herd-2000, Niewolf-1992)*
- Cows at the Bair ranch measured for RFI as calves showed the same efficiency as producing cows with a 30% variance in feed intake as first and second calvers. *\*(Patterson, MSU 2000)*
- Studies in Australia on 284 four-year-old cows that had been RFI tested as calves found that cows who were efficient as weaned calves required less feed as mature cows with no compromise in the weaning weight of their calves.
- Initial BCS (body condition score) was not different between efficiency groups for the three-month grazing period. Body weight was similar between efficiency groups and consequently BCS change was also similar between efficiency groups. Intake by efficient cows was 27 lbs. per day and by inefficient cows was 34 lbs. per day. Intake by efficient cows was 21% lower than by inefficient cows. University of Missouri.
- RFI is an independent trait with no negative correlation to other economically important traits such as fertility, maternal production, performance, feet, frame size, body condition, etc.
- At West Virginia University, they took steers from a low RFI sire and from a high RFI sire and measured their intake on pasture through the summer. This particular summer saw a drought develop, and as the drought got stronger the negative RFI steers excelled even more. No surprise here, as it only makes sense that cattle who metabolize their feed better will excel on limited feed/pasture conditions.
- Results from this study suggest that "heifers that are more efficient based off of RFI will consume less dry matter than cows, with no differences in cow or calf performance or reproduction," he said. Heifers with a favorable RFI (ate less than expected) also ate less as cows, but there were no significant differences in mature size, reproductive performance," explained Shike. *\*(Dan Shike, University of Illinois)*
- In 2019, 188 steers all from one herd were shipped to Simplot Feeders at Grandview, Idaho who use GrowSafe equipment to measure feed intake. The steers represented 13 different Angus sires (of which three were McDonnell efficiency sires), and two were Simmental sires. McDonnell efficiency sired steers ranked #1, 2, and 4 for feed conversion. McDonnell's top efficiency sired steers, when compared to the other 12 sire groups fed for 19.4% less feed, accounting for over \$150 savings, and weighed 1520 lbs., compared to the group average of 1510 lbs.
- 70% of feed and grass consumed is used for just maintenance. Improving the efficiency metabolism of cattle offers tremendous opportunity to cattle producers to improve net returns on their operation.
- RFI is not a stand alone, but when combined with performance, feed conversion, and DMI becomes the most powerful efficiency management tool we have as an industry

