

by **Shane Bedwell**

## Herd Foundation

Long-term profitability and reproductive success require a productive cow herd.



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Do you ever wonder where you might be in life if it was not for the sacrifices of your mother? The matron of the house plays a critical role from the beginning by bringing us into the world and then, from there, spending countless hours nourishing and guiding us to adulthood. Through adulthood, we are imprinted with the foundation she laid and the lessons she provided.

I am thankful for the time and sacrifices my mom provided for me, and now it is neat to see some of her great talents expressed through my daughter. At just 7 years old, my daughter already likes cooking and baking, and she is quite good at it. Now, granted, my wife is also a good cook, so my daughter inherited the cooking genes from both sides of the pedigree. But the way my daughter goes about following the exact steps of a recipe definitely comes from my mom — I mean to a T. I am looking forward to seeing all of the great attributes both of my kids inherited and will pass down from all of the moms in their pedigree.

### Maternal contributions

With weaning time upon us and the dog days of summer on the horizon, it is amazing to see the accomplishments of the genetic plan laid out through those soon-to-be-weaned calves. You will soon know what sire group passed on the most direct growth and what mating really clicked to deliver the standouts. Something often overlooked is the contribution the mama cow brought to the table. Before selecting a sire, I hope you made sure there was a good cow behind him — and another great cow behind her. If you plan to keep daughters out of the bull, their udder quality, longevity, disposition and genetic merit are critical for future success.

Furthermore, the direct dam of the calf plays a critical role because of her contributions of milking ability and genetic growth for the calf. It is not difficult to find the hardest working cows this time of year — they are often on the skinnier side and, in turn, usually have heavy calves. Then they are expected to stay pregnant, regain healthy body condition scores (BCS) in the fall, calve on time, breed back and raise another big, strapping calf the next year.

We obviously demand a lot of our cows. In an output-driven business environment, I would argue we have neglected to prioritize how to keep the mama cow profitable for the ranch and to ensure she can last. Undoubtedly, the genetics are available to deliver the pounds of calf, and there has been great genetic gain for the weaning weight expected progeny difference (EPD). After all, weaning day is considered the big judgment day for ranchers as pounds at weaning are the revenue generator for the year.

Still, have we truly gained more revenue because of this increase in pounds? Initially, most would say “yes.” But in terms of overall profit,



the answer is likely “no.” These higher-octane cows probably required more feed resources to stay in the production cycle. Have we simply fed our mama cows harder so they can achieve the weaning weights we desire?

The bigger question to ask is “why not do both?” Why not wean calves suited to environmental constraints and which also maximize the efficiency of the mama cow, ultimately reducing inputs? Land availability is not increasing and feed is not getting cheaper and likely never will. All the while, we still need to produce the same pounds, if not more.

### More with less

Time and time again, data have proved the advantages of direct heterosis. The increase in pounds of calf weaned favors baldy calves compared to straight-bred black calves — 15 additional pounds on average. Along with this, studies have shown an advantage in health as well as feed conversion in baldy calves. In the Harris Ranch project, calves were tracked through the entire feeding phase, and the overall net return of the baldy calf was \$30 more per head compared to net return for the straight-bred black calf — a nice bump for sure!

But Hereford genetics play a much bigger role which needs to be heard. In each of the two years of the same Harris Ranch study, the retained baldy females had a 7% higher pregnancy rate compared to the pregnancy rate for straight-bred black females. In a set of 200 females, that equates to 14 more females that are going to have a live calf. I am sure most all of you would favor this revenue opposed to the cull price of the opens.

This well-documented advantage Hereford genetics have is called maternal heterosis and is often neglected. Why? Because it is not an instant reward. But I bet all good commercial cattlemen reading this will attest it is the bread and butter of their program. With a lowly heritable trait like fertility, you get the biggest bang with the result of crossbreeding.

Hereford genetics have shined in multiple feedlot trials and studies relative to feed conversion. Baldy cows consume, on average, 2 pounds less per day on a dry matter basis (DMB) when compared to the intake of straight-bred black cattle. However, there has been little research on the voluntary intake of the baldy cow — that is, until Dave Lalman, Ph.D., and his research team at Oklahoma State University (OSU) compared the baldy female to the straight-bred black female.

In their experiment, data showed the baldy cow averaged a higher BCS through both phases of the experiment when compared to the BCS of the straight-bred black cow. More impressively, the baldy cow achieved an increase in BCS while consuming less feed per day. The data also revealed the baldy female consumed, on average, just under 2 pounds per day less moderate quality forage. On an annual basis, this research means a baldy cow needs 725 pounds less forage than the straight-bred black cow.

Rangeland studies in Oklahoma have found native, moderate-quality forages typically produce 3,000 pounds of forage per acre. However, the stocking rate recommended by rangeland ecologists is about 25% per acre for livestock forage. Well, 25% of 3,000 is 750 pounds — which is about what the baldy cow saved in forage consumption. Therefore, the baldy cow needs about one acre per year less because of her advantage in lower feed intake and maintenance requirements when compared to the requirements of a straight-bred black cow.

Utilizing Hereford genetics and selecting for traits of economic importance holds great promise for the question I posed earlier of essentially doing more with less. There is a reason the baldy female is the favored F1 (first generation) of commercial cattlemen — you get heavier calves and more females bred back all while reducing input costs. **HW**