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Swapping for More Potential

The 6X Ranch is using Hereford bulls and heterosis to wean more pounds and reduce cow costs.

by *Wes Ishmael*

When Mike Seal, came to manage the 6X Ranch, Mackay, Idaho, nearly 12 years ago, the herd was straight black Angus. The ranch was focusing intently on marketing its cattle through the Harris Ranch Beef program — creating calves that could meet the branded program’s high carcass quality standards was a primary goal.

At the time, Seal says the cows were pushing 1,600 pounds for mature weight and weaning 450-pound calves.

“That bottles you into a lot of slim-sided, hard-doing, too-tall cows. It was not pretty,” Seal says. He adds that calf morbidity and mortality were also too high.

The ranch added Hereford genetics the first year that Seal was at the helm.

Seal has always believed in the power of complementary crossbreeding and the benefits of heterosis.

“You’re adding value right off the bat with your crossbred calves. They’re going to be bigger, thicker and weigh more. If you’re going to run them, you just as well take advantage of it,” Seal explains. “I don’t understand not taking advantage of heterosis and getting that hybrid vigor so you can take advantage of more weaning weight with the same mature cow size.”



When Mike Seal came to manage the 6X Ranch, he incorporated Hereford bulls to harness complementary heterosis and shore up herd efficiency.

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These days, the 6X markets all of it calves as Vac-45 through Superior Livestock Auctions. Their calves loaded out at the end of November weighing an average of 611 pounds straight through, steers and heifers. Calves are enrolled in the American Hereford Association (AHA) Hereford Advantage program and bundled with source and Gap 4 verification through IMI Global.

On the cow side of the equation, matching Hereford with Angus enabled 6X Ranch to increase herd production efficiency.

“We really needed to moderate the size of the cows we had, change their type and capacity,” Seal explains. “What that’s done for us you see in the weaning weights, but you also see it in your cows that can carry some backfat into the winter. It gets down to 20 to 25 degrees below zero here, and you don’t have to use your entire haystack to get them through the winter. The capacity of those cows, having the backfat on them, but still having the maternal ability and fertility.”

Seal has no complaints about the maternal ability or fertility in his Hereford-sired black baldy females.

“They breed up, and they’re earlier in their heat cycle. But then, when you bring them into the calving barn and have them in a close

space, they’re so much nicer to handle and so much nicer to be around. You’re not getting calves and people run over,” Seal explains.

He also appreciates the thriftiness.

AHA staff toured the 6X Ranch last summer amid the region’s ongoing drought.

“Last year was tough, and I had to tighten things up because we were running out of hay. So, we didn’t feed like we wanted to, but I didn’t see it in the calves,” he told the AHA visitors. “And you saw the cows. They look good but the brockle-faced cows look better. They came back and put that backfat on quicker and came back ready to cycle. We saw that in a big way.”



Mike Seal, 6X Ranch manager appreciates the docility of his Hereford bulls, which he can walk onto a trailer if needed for doctoring.

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The 6X Ranch utilizes a 90-day breeding season. Heifers are bred at the end of April to start calving in early February. Cows are bred to start calving Feb. 25.

Incidentally, while shifting genetic focus, the 6X Ranch never abandoned carcass quality.

“When we switched to Hereford bulls, we were told we couldn’t expect the baldy calves to grade as well, but they did: 92-96% Choice with some Prime. They grade very well, and they have feed conversion,” Seal says. “If you retain them in the feedlot and get the carcass data back, you’re going to find out these black baldies really grade. If they’re fed and managed right, you have no problem getting Choice and Prime with minimal Select.”

Succeeding in harsh environments

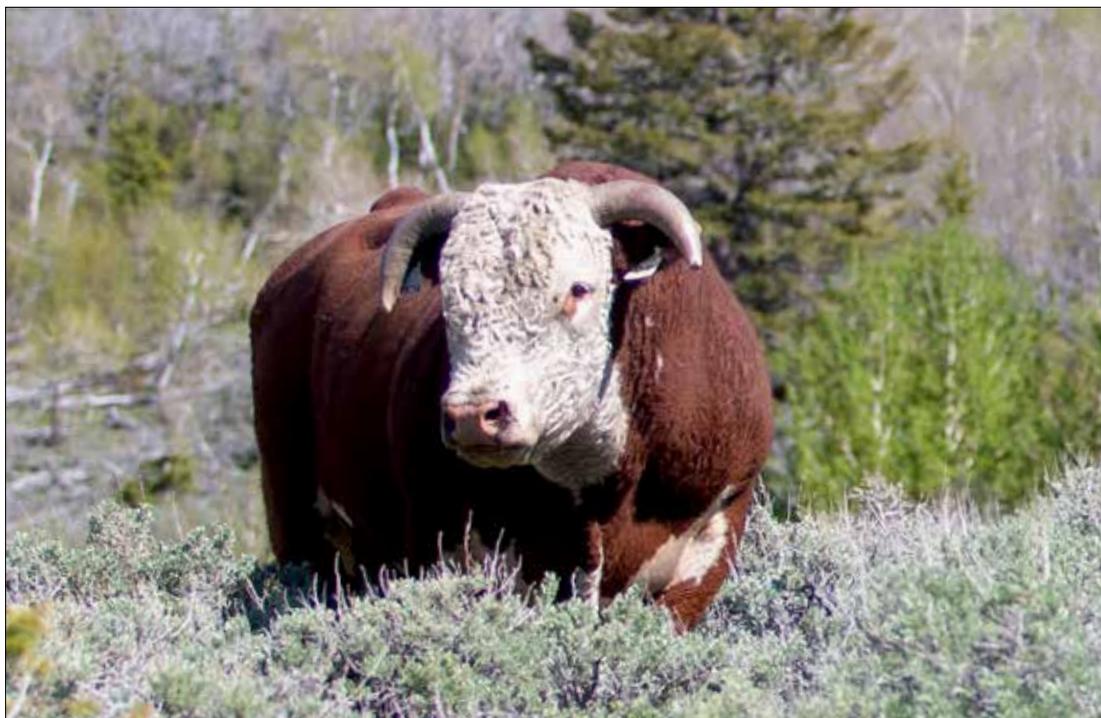
Mackay, Idaho — pronounced “Mackie” — is in the central part of the state. It was named for John William Mackay, who owned copper mines in the area. There is also a Mackay Peak in the nearby White Knob Mountains. Seal grew up about 50 miles from here, as the crow flies. He managed another ranch for 12 years before coming to the 6X Ranch.

Cows have lots of ground and elevation to cover at the 6X. Their desert allotment is at about 4,500-foot elevation. Their forest land is 9,000 feet.

“We need a cow that can work in both environments. She’s got to be able to utilize both the desert and the forest,” Seal says.

That goes for their bulls, too.

“Our bulls run on a desert allotment, which is a lot of lava rock. It’s rocky; it’s sagebrush and rattlesnakes. It gets very dry. Then, we’ll take those



Cows and bulls have plenty of ground to cover at 6X Ranch, Mackay, Idaho, from a desert allotment at 4,500 feet elevation to forest ground at 9,000 feet.

Heterosis Pays

Economic and production benefits associated with heterosis are documented by decades of industry-wide research in commercial crossbreeding systems.

Direct heterosis — increased performance of the crossbred calf relative to the average of the straightbred parental breeds.

- Survival to weaning – 1.9%
- Weaning weight – 3.9%
- Post weaning gain – 2.6%
- Yearling weight – 3.8%
- Feed conversion – 2.2%

Maternal heterosis — increased performance of the crossbred cow relative to the average of straightbred females of the parental breeds.

- Calving rate – 3.7%
- Weaning weight 3.8%
- Longevity – 38%
- Number of calves – 17.0%
- Cumulative weaning weight – 25.3%

Hereford Heterosis Pays More

Hereford genetics offer more crossbreeding power because they are the least related to other Bos Taurus breeds, as documented by the U.S. Meat Animal Research Center (USMARC).

Plus, Hereford's unique, inherent genetic advantages compared to other breeds offer added breed complementarity, especially when crossed with Angus. Hereford advantages include:

- Docility
- Fertility
- Feed efficiency in the pasture and feedlot
- Longevity
- Production efficiency

Research consistently documents the advantage of Hereford-sired F1 black baldy heifers and steers compared to straightbred black Angus peers in the same production setting. Science and experience suggest these advantages would be similar in herds using Hereford bulls with Red Angus cows to produce red baldies. Unless otherwise noted, the research results below are from the multi-year Harris Ranch Heterosis Research Project completed in 2010.

Hereford-sired black baldy female advantages:

- 7% higher pregnancy rate
- More calves weaned per cow exposed
- \$51 more per cow per year in net present value (2009 calculation)
- 3.5% more average rate of return on assets
- 2 pounds less pasture forage per day while maintaining more body condition¹

¹On average, Oklahoma State University researchers measured about 2 pounds per day less moderate-quality forage (Oklahoma pasture) intake in the black baldy cows. On an annual basis the black baldy cows would be expected to consume about 725 pounds less forage.

²Calculation based on breed differences for feed efficiency documented by the U.S. Meat Animal Research Center, using current feed costs (Oct. 2022).

Primary crossbreeding advantages are improvement of lowly heritable traits, such as those associated with reproduction, which are difficult to impact through direct selection pressure. Small, net-positive effects in multiple traits affecting commercial cow-calf profitability — pregnancy rate, calf livability, calf health, etc. — yield significant returns that are difficult to measure.

Crossbreeding value is most visible in the increased number of calves (lifetime), cow longevity and cumulative weaning weight (lifetime).

Developing and maintaining a crossbreeding system that captures maternal heterosis is critical to long-term profitability in the commercial cow-calf business. Likewise, increased production efficiency is crucial to maintaining social license to operate.

Black baldy cows require 1 acre less of moderate-quality forage per year compared to straightbred black Angus peers, according to Oklahoma State University research.¹

Hereford-sired black baldy steer advantages:

- Heavier weaning weights
- Increased feed efficiency
- Lower cost of gain
- Lower feedlot breakeven
- \$28 per head less feed cost across finishing period

Based on feed efficiency alone — breed differences documented by the USMARC — **Hereford has a \$51 per head advantage over the finishing period, when compared to Angus.²** Hereford's economic advantage increases as feed costs rise.

Commercial producers on the Gulf Coast and in the Southeast see similar advantages when using Hereford bulls on Brahman (Bos Indicus) cows to create what are commonly called “tiger-stripes” because of their unique hide markings. The tiger-stripe cow is recognized as the undisputed Queen of the South, just as the black baldy cow is regarded as unmatched in other parts of the country.

AHA's futures research efforts include documenting tiger-stripe advantages as it has done with black baldies in the research mentioned above.

Hereford is the essential component to crossbreeding systems in the United States. **HW**

same bulls and put them in the mountains where they will run at 8,500 to 9,000 feet,” Seal explains. “It isn't a pasture setting; it's range conditions, and it's rough range. Our Hereford bulls have always held up. The feet and the structure have been good; no complaints. Breed comparison wise, we get a lot more crippled and soundness problems in our Angus bulls.”

In fact, Seal says he could run his Hereford bulls through 6 and 7 years of age if he wanted.

“They hold up. They're still sound, and they can still breed cows. So, the longevity is really good. They just last,” Seal says. “I'm really happy with what Hereford has done for us maternally, their fertility and ability to run in rough country. These cows will run to 9,500 feet, but they also do great on the desert. Our bulls stay really sound. We haven't had a lot of problems with soundness on them, even running in really rough conditions.”

Disposition pays

As alluded to earlier, Seal emphasizes that docility is another benefit that comes with Hereford bulls and their calves.

“The Angus bulls, I don't go in the pen with them. I can pretty much walk up and pet every Hereford bull I've got, not to say they're all like that, but it sure makes a big difference,” Seal says. “If you've got to gather a bull off forest or BLM (Bureau of Land Management) and load him, like I did yesterday, I'm able to walk those bulls in the trailer and they don't seem to get hot; they stay pretty laid back and moderate. There are lots of breeds you don't do that with.”

Likewise, Seal explains the disposition of the Hereford-sired black baldy females is evident.

“I love the disposition of my black baldy cows, and yet, they're not pets. They're range cows; they act like range cows, but they're not wild and rank either,” Seal says. “We'll take our replacement females into the arena, work them for about three

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“They breed up and they’re earlier in their heat cycle,” Mike Seal, 6X Ranch manager says of his Hereford-sired black baldy females, compared to the ranch’s straight blacks. “But then, when you bring them into the calving barn and have them in a close space, they’re so much nicer to handle and so much nicer to be around. You’re not getting calves and people run over.”

days and check disposition. Usually, your brockle-face and your baldies are really good, and the blacks are pretty good, and those that aren’t, you cull for that.”

The 6X Ranch runs two cow herds. One is straight black bred to Hereford bulls. The other is comprised of the black baldy and brockle-face females, which are bred back to Angus. Seal explains their working plan is to then breed Hereford back to the three-quarter-blood Angus females.

Whatever the particular mix, Seal says incorporating Hereford genetics has bolstered 6X Ranch production and marketing opportunities.

“If people don’t like your cattle, or if the feed conversion isn’t what the feedlot needs, or the grade isn’t what the packer wants, you’ll find your cattle aren’t sustainable. And in a rough environment like this, a harsh environment with severe winters, and whether it’s a drought you’re facing, you’ve got to have a calf that’s appealing to the feeder to come back and buy him again next year. I don’t think that’s a problem with these cattle,” Seal says. **HW**