



HEREFORD HETEROSIS

MORE POUNDS AND LESS COST



“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,” says Mike Seal, manager of the 6X Ranch, Mackay, Idaho. “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.”

When Seal came to manage the 6X almost 12 years ago, the herd was straight black Angus and the ranch focused intently on creating the carcass quality demanded by premium branded beef programs. 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.

Seal, a lifelong believer in the power of complementary crossbreeding and the benefits of heterosis, started breeding the black herd to Hereford bulls the first year he was at the helm.

When they loaded out their calves in November 2022 — sold through Superior Livestock Auction — the calves weighed an average of 611 pounds straight through, steers and heifers. Calves are enrolled in the American Hereford Association (AHA) Hereford Advantage program, bundled with other value-added programs verified by IMI Global.

“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.”

Learn more about the 6X Ranch here.



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.

“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.

“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.”

Keep in mind, cows and bulls must cover lots of ground and elevation 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 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.

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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.



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DISPOSITION PAYS

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 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 maintained carcass quality, too.

“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.”

RELOAD WITH HEREFORD HETEROSIS

Although input costs remain elevated, current cattle price forecasts suggest there will be economic incentive for producers to build back more than 2 million cows; cows liquidated the last several years due mostly to drought. Building back with more heterosis comes with less production risk. Building back with Hereford heterosis leverages the breed’s inherent strengths.

Scan the QR code to sign up for free, via email:

- Market Tracks — monthly year-over-year market summary and trends.
- Bald Faced Bottom Line — monthly Hereford news pertaining to commercial producers.
- Commercial Hereford World Issues — management, markets and commercially-focused feature stories four times each year.

To source Hereford bulls:

- Colt Cunningham, AHA Western Region Field Representative
918-978-8779, ccunningham@hereford.org

To learn more about marketing options for Hereford-influenced cattle:

- Trey Befort, AHA Director of Commercial Programs
816-218-2277, tbefort@herefordbeef.org
- Jake Drost, Feeder Cattle Marketing Representative
806-884-5426, jdrost@hereford.org



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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.

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

MATERNAL HETEROSIS

Increased performance of the crossbred cow relative to the average of straightbred females of the parental breeds.

- + 3.7% Calving rate
- + 3.8% Weaning weight
- + 38.0% Longevity
- + 17.0% Number of calves
- + 25.3% Cumulative weaning weight

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).

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) 2000 Bull Project. 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, and production efficiency.

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

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.

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).