Expansion Figuring

How much should you pay for a replacement heifer?

*by **James Mitchell** and **Ryan Loy***

With cattle prices at historical highs, few investments carry more weight for a cow-calf operation than the decision to add replacement females. A producer has several options: they can buy a bred heifer to add to their herd or retain and develop a heifer calf of their own, delaying her first calf by a year for a lower upfront cost. Current heifer prices have raised the financial tradeoffs of this decision, and the best strategy depends on assumptions that vary by operation and year.

Buying a heifer means paying today's price to calve next spring. Raising means giving up what a calf could have sold for at weaning, covering a year of expenses and waiting an extra year for her first calf. Higher heifer prices make buying more expensive up front but also increase the opportunity cost of holding a heifer calf back rather than selling her.

The *Beef Cow and Heifer Investment Analysis* tool was developed to help producers with this decision. The tool is a free online dashboard that allows producers to enter their own data, such as heifer price, annual cow costs, weaning weight, calf crop percentage, cull weight, discount rate and cost inflation. The dashboard returns net present value (NPV), breakeven heifer price, payback period and average annual net return, all of which update in real time (see Fig. 1).

Consider the dashboard's default assumptions: a 92% weaning rate, 520-pound weaning weight, $1,100 in annual cow costs, an 8% discount rate and an 8-year productive life, with calf prices and cost inflation following the USDA calf price forecast (users can also substitute their own price and cost expectations). Under these assumptions, the tool estimates the maximum price a producer could pay for a heifer while maintaining an 8% return ($5,018 per head in this case), as well as the payback period to recover the investment. Changing an assumption can significantly impact the outcome, highlighting how much this decision is operation specific.

The decision to buy or raise heifers boils down to cash-flow timing and the price paid relative to what a heifer returns over her productive life. The dashboard does not determine which strategy is correct for an operation. However, it provides cattle producers and other agricultural stakeholders with a framework to evaluate the trade-offs between these strategies. The *Beef Cow and Heifer Investment Analysis* tool is free to use (the QR code takes you there). **BA**

Editor's Note: James Mitchell is an Extension livestock economist at the University of Arkansas. Ryan Loy is an Extension agricultural economist at the University of Arkansas.

Fig. 1 The *Beef Cow and Heifer Investment Analysis* tool was developed to help producers weigh the decision to purchase or develop replacement heifers.

Value Assessment Tools

Gathering and accounting for factors to assess replacement female value is neither quick, nor easy. That's why automated decision aids developed by Land Grant universities can be so useful. A few are listed below.

Beef Replacement Spreadsheet
Kansas State University

Raising Versus Buying Heifers for Beef Cow Replacement
Iowa State University

Net Present Value of Beef Replacement Females
Iowa State University

Bred Heifer Profitability Estimation
University of Kentucky

Replacement Value Factors

Productive life — Each cow has a useful or productive life — some are long, and some are short. The longer she lives, the more value she has. This productive life has a direct tie to the cull rates of the whole herd. While cull rates vary by year and age of cows, they may be used as a rough measure of average cow life. If a rancher has an average annual cull rate of 16%, on average, a cow lasts 6.25 years in that herd (100/16=6.25).

Cow productivity — Separate from the productive life of a cow, this figure is typically measured in terms of the weaning weight of calves. The size and number of calves weaned and sold per cow exposed to a bull will alter this value considerably. Heavier weaning weights imply more income generated per cow, allowing a bigger budget for replacement females in higher-income herds.

Cow costs — If weaning weights were all that mattered, we would raise extremely large cows. But large cows tend to cost more and have larger maintenance costs. What it (truly) costs to run a cow impacts the value. The higher the cost, the less one can afford to pay for replacements.

Salvage value — If the salvage or cull value is expected to increase over time, then what a producer can afford to pay per replacement female increases. In the past, these values have been fairly low, but these figures have increased over the past few years.

Calf prices — If cattle prices over the productivity life of the cow are expected to be high (or higher), on average, then the price cattlemen can pay for replacements increases. Understanding the cattle cycle dynamics is important here.

Interest rates — Higher feeder cattle interest rates imply more expensive borrowing costs, and thus the less one can pay for replacements If you are not borrowing money, then you can pay a lot more for replacements. **B***A*

Source: Elliott Dennis, University of Nebraska-Lincoln Extension livestock economist, In the Cattle Markets *from the Livestock Marketing Information Center.*

Heifer Retention Considerations

Keeping or selling heifers is a challenging decision, especially when current cattle prices are historically high. Hannah Baker, Extension forage and economics specialist at the University of Florida, shares these insightful considerations in a recent issue of *In the Cattle Markets*.

Opportunity — While no one knows exactly how long today's strong cattle prices will last, current market fundamentals continue to support strong cattle prices. At the start of 2026, there were only 4.7 million beef replacement heifers available, the second-lowest inventory since the 1940s behind 2025 (4.6 million head). While beef cow slaughter has declined nearly 17% during the first half of 2026 after an 18% decline in 2025, reduced culling is only one part of herd expansion. Expansion also requires producers to retain more heifers, and those efforts have been slow. As a result, cattle supplies will remain tight, supporting strong prices until production increases substantially or beef demand weakens.

Challenge — Expanding the cow herd requires the resources to support additional females. Retaining heifers is a long-term investment that requires intensive management and significant costs, including nutrition, health, labor, breeding and the expense of developing females that ultimately do not fit the operation. Resource availability is another key consideration. Although recent rainfall has improved pasture conditions in some areas, more than half of the country remains in drought, particularly across the Southeast and West. Additionally, high interest rates and concerns such as New World screwworm and pasture mealybug all add to the risk and uncertainty of investing in high-value breeding stock.

Considerations — Despite the challenges and high prices for weaned heifer calves, the expectation that strong calf prices may persist creates an opportunity to evaluate the economics of retaining heifers. However, those projections should include multiple market price and cost scenarios rather than assuming today's market conditions will continue indefinitely. **B***A*