

# Cow-calf Producers Need an



PHOTO BY SHAUNA ROSE HERMEL

by **Troy Smith**, field editor

**W**hile many cow-calf producers sang sad songs, lamenting the way calf prices dropped during 2015, cash returns to cow-calf operations were not so sad. From a historical perspective, they look pretty good. According to data analyzed by the Denver-based Livestock Market Information Center (LMIC), returns over cash costs plus pasture rent averaged nearly \$300 per cow. That's way down from almost \$530 per cow in 2014, but it's well above 2013 when most cow-calf producers captured returns of less than \$130 per cow.

Cattlemen caught a break in the form of 2015's reduction in fuel prices. For some, however, it was more than offset by bumped-up pasture rents. The cost of production is high and is likely to remain so. Cost management will be increasingly important as calf prices decline further, as is expected during 2016 and 2017. That's a warning offered often, but even some of the most cost-conscious producers frequently overlook a significant cost factor.

According to University of Nebraska Extension Educator Aaron Berger, that often-

ignored expense to cow-calf enterprises is cow depreciation. Berger believes that for many operations, it is an expense that ranks second only to feed costs. However, many ranchers have little appreciation for depreciation as it applies to cows, because it is "hidden." Nobody writes out a check to pay for it.

"It's frequently overlooked because it is a non-cash expense. Cow depreciation is a real cost," says Berger. "But there are ways to manage it."

## Calculating the cost

To calculate cow depreciation, start with the total initial cost of a replacement female entering the production herd and subtract the salvage value recovered when she leaves the herd. Dividing that remainder by the number of years the cow was in production provides an amount representing the cow's annual expense due to depreciation.

For example, let's assume a purchase price of \$2,750 — a figure that might represent the initial cost of many heifers that will deliver their first calves this spring. If we

then estimate her eventual "cull" value at \$1,500, we subtract that number from \$2,750 to arrive at a cow depreciation value of \$1,250. If the cow is in the herd for five years, depreciation is \$250.00 per head per year. At four years it is \$312.50 per head per year and at three years it is \$416.67.

"That's the depreciation without any death loss included," emphasizes Berger. "If a 2% death loss is included, and assuming an average cow value of \$2,000, then depreciation expense jumps to \$290.00 per head for five years, \$352.50 for four and \$456.67 for three. Cow depreciation is a significant expense."

Berger says many producers are surprised by the relatively few years that cows, on average, remain in production. Data suggest that the nation's cow herd consists mostly of cows that are 6 years of age or younger. At a 16% replacement rate, which is pretty close to industry average, each cow will deliver no more than five calves and be 5½ years of age, on average, when she leaves the production herd. Cow depreciation really is a significant expense.

# Appreciation for Depreciation

## Reducing the cost

Berger says cow depreciation can be reduced in three ways:

- 1) Reduce the initial cost of the replacement female. This could be the price paid for a female sourced from outside the operation, or the total cost of retaining and developing a home-raised replacement.
- 2) Increase the salvage value of females leaving the production herd.
- 3) Reduce the replacement rate. In other words, increase the number of years a female is in production.

For producers who retain home-raised heifers, Berger recommends a “systems approach” as a strategy for reducing replacement female costs. However, rather than intensive development systems dependent upon high-grain diets, he recommends consideration of systems utilizing more inexpensive feed resources to develop heifers to moderate target body weights at breeding — 50%-57% of mature weight instead of the traditional 60%-65% of mature weight. Research has demonstrated replacement heifers developed to lower target weights, but on a positive plane of nutrition prior to the breeding season and on through calving, can have acceptable pregnancy rates and longevity. These lower-input systems allow producers to develop replacement heifers at lower cost without sacrificing reproductive performance.

Berger also urges producers to treat replacement heifer development as a separate enterprise whereby the cow-calf enterprise “sells” weaned heifer calves to the heifer development enterprise, at market value, and all additional expenses associated with replacement heifer development are tracked until heifers are bred and ready to enter the herd. The cow-calf enterprise then “buys” back bred heifers at market value.

Since no money really changes hands and transactions between enterprises occur only on paper, some people think separate enterprise accounting is unnecessary. Berger argues that keeping track of all expenses, including heifer value at weaning and as a bred female entering the herd, bring clarity to where expenses occur and revenue is generated.

“I think it’s the only way to get a true picture of what a replacement heifer actually costs,” insists Berger.

Placing the whole process under honest scrutiny can help identify opportunities to optimize development costs, and Berger

believes optimization is key. Frequently, producers become focused on maximizing the number of heifers that become pregnant, forgetting that open heifers can be profitable.

“If we’re trying to find those replacements that most fit our environment and our resources, I think we should consider challenging heifers during the development phase and expose them to bulls or AI (artificial insemination) for a short period of time,” says Berger, suggesting that this approach can sort out the least adapted candidates. When development costs are kept low, those open heifers often can be identified early and marketed at a profit.

According to Berger, the greatest opportunity for reducing cow depreciation may exist in strategies for increasing the

“salvage” value of cows leaving the herd.

With this in mind, some producers may want to reconsider when or if they will end the breeding season by pulling bulls from the pasture. Instead, they may want to plan for a long breeding season and a short calving season. With timely application of pregnancy diagnostics — palpation or ultrasound — and discipline, producers can determine which cows will calve during a desired calving season. Those that conceived too late to calve by a predetermined cut-off date can be sold, most likely at a premium to open cows.

When producers are going to be selling open cows, Berger advises them to remember the historical seasonality of the cull cow market. Prices typically are lowest in the fall, because that’s when a majority of producers pregnancy-test and send opens to town. Prices generally trend higher as spring approaches and the cull cow supply dwindles. Depending on feed resources and their costs, producers may want to delay marketing until prices improve. They may also be able to add value to open cows by feeding them to heavier weights and perhaps move them into a higher market cow classification that earns a higher price per hundredweight.

## Increasing longevity

Reducing cow depreciation by reducing

the replacement rate involves strategies for extending breeding females’ productive years in the herd. The primary reason that cows are culled is because they failed to rebreed. First- and second-calvers, as well as the oldest cows in the herd often are most vulnerable. In some situations, says Berger, strategic supplementation to reduce reproductive fallout among females in these age groups may be worthwhile.

For a long-term impact, however, producers will want to select and manage replacements for cow longevity. Use of a heifer-development system that identifies females that are most adapted to the producer’s own resources and management, as was mentioned previously, should enhance longevity.

“Another way to increase the number of productive years that a cow is in the herd is to

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select bred heifers that will calve early in the calving season. When heifers calve early in the season, they experience a longer postpartum interval and are more likely to rebreed early in the breeding season. They are more likely to deliver early in the calving season in subsequent years and stay in the herd longer,” advises Berger.

According to the number-crunchers, the U.S. cattle industry is well into the herd expansion phase. Expansion is expected to continue, but at a slower rate than in 2014 and 2015. When a cow-calf producer is poised for expansion, he or she may want to remember often some wisdom offered by veteran economist and North Dakota State University Professor Emeritus Harlan Hughes. It’s the same advice that Dave Pratt imparts to students attending his “Ranching for Profit” schools.

Both of these advisors frequently remind ranchers that the cattle cycle impacts cow depreciation. Breeding females purchased when prices are high typically leave the breeding herd when prices are going down. That makes cow depreciation greater. Conversely, replacements acquired near the low point of the price cycle most often leave the herd when prices are higher, so cow depreciation is less.

Think about it.



**Editor’s Note:** Troy Smith is a cattleman and freelance writer from Sargent, Neb.