



PHOTO BY SHAUNA ROSE HERMEL

# Replacement Heifers

How many should I breed, and what are they worth?

by **Troy Smith**, field editor

**Y**ou've got to know when to hold 'em and know when to fold 'em," said Ron Lemenager, "and know when to run."

Referencing lyrics from Kenny Rogers' 1978 hit *The Gambler*, the Purdue University Extension beef specialist illustrated that cow-calf producers trying to decide what to do with replacement females may find it hard to

know whether to hold or fold. Some might prefer to run away. In a presentation delivered at the 24th Range Beef Cow Symposium in November, Lemenager admitted that it's hard for him to answer producers' questions about how many heifers to keep and what replacement females are worth. There are no easy answers.

According to Lemenager, one of the biggest challenges to making herd expansion decisions is accurately estimating future prices, not on the average, but on the day an input is purchased or an output is sold. It would take a magic crystal ball to reveal what prices will be for the next eight to 10 years for all feed resources, feeder calves, cull

**Table 1: Food and Agricultural Policy Research Institute estimates (August 2015)**

Price projections	14/15	15/16	16/17	17/18	18/19	19/20
All hay price, \$/t	172.00	155.90	155.39	164.16	170.35	173.84
Corn, \$/bu.	3.70	3.68	3.71	3.96	4.09	4.14
Beef cows, M hd.	29.7	30.7	31.4	31.6	31.7	31.5
Steers, all grades 5-area, \$/cwt.	156.89	149.10	136.60	129.80	124.77	122.12
Steers, 600-650-lb. OKC, \$/cwt.	242.01	224.95	198.26	181.60	168.93	162.75

Source: [www.fapri.missouri.edu/wp-content/uploads/2015/09/FAPRI\\_MU\\_Report\\_03-15.pdf](http://www.fapri.missouri.edu/wp-content/uploads/2015/09/FAPRI_MU_Report_03-15.pdf).



cows, equipment replacement and interest rates.

“Without accurate price forecasting, all we can do is create a number of possible scenarios using our best estimate of price ranges that seem possible for the most volatile components,” Lemenager said. “They may provide some insight that will stimulate the thought process for making the best informed decisions that result in optimizing long-term ranch profitability.”

Addressing the question of what replacement heifers are worth, Lemenager reminded his audience that perceived value often doesn't equal real value. He recommended using computer software, like the Excel spreadsheet decision-making tool developed by Iowa State University, to calculate net present value for replacement females (available online at <http://bit.ly/1OtvnbY>). Net present value reflects the value of potential future returns, in today's dollars, based on an assumed rate of return.

“We use a net present value calculator to evaluate the difference between the revenue a heifer is expected to generate and her cost,” Lemenager explained. The software requires the user to make certain assumptions, plugging in the numbers representing:



PHOTO BY TROY SMITH

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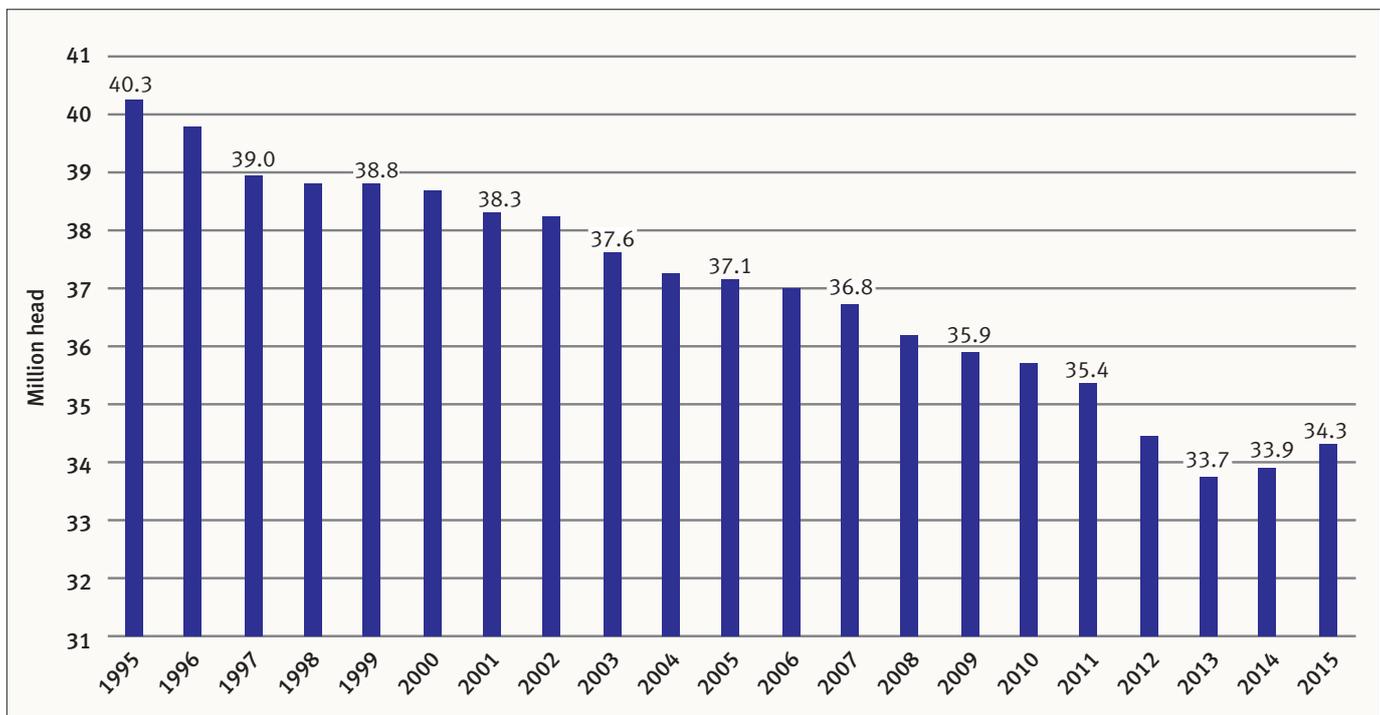
- purchase price of replacement female (if any);
- number of calving opportunities;
- number of marketable calves;
- weaning weights of calves;
- sale prices of calves;
- annual cow costs;
- annual heifer development costs;
- weight of cow when culled;
- sale price of cull cow; and
- discount rate (interest).

Ranchers should use realistic numbers and conservative feeder-calf price projections to calculate net present value of retained or purchased replacement females, Lemenager said. The result, along with careful consideration of how much risk the ranch is willing to accept, should help producers determine whether this is an opportune time to keep extra heifers or delay expansion.

**Editor's Note:** Troy Smith is a cattleman and freelance writer from Sargent, Neb. This summary is part of the Angus Journal's online coverage of the 2015 Range Beef Cow Symposium hosted Nov. 17-19, 2015, in Loveland, Colo. For additional coverage, to review this presentation's PowerPoint or to listen to the presentation, visit the Newsroom at [www.rangebeefcow.com](http://www.rangebeefcow.com). The Angus Journal's coverage of the event is made possible through collaboration with the event committee and sponsorship of LiveAuctions.tv.

**As part of the Angus Journal's full meeting coverage, you can listen to Ron Lemenager's presentation at <http://bit.ly/1VpN6GR>.**

**Fig. 1: U.S. calf crop, 1995-2015**



Source: Chris Prevatt, Southeast Cattle Advisor.