

# THE COST OF RAISING DAIRY REPLACEMENTS

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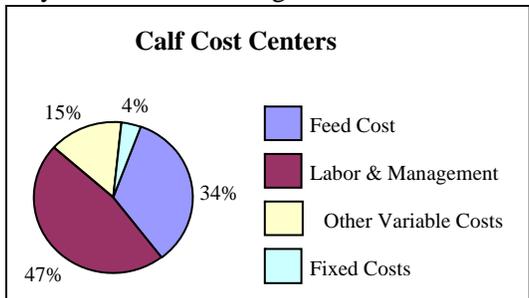
Raising dairy replacements is expensive. The cost of raising calves and heifers is often the second highest expenditure on dairy farms after milking herd feed costs. With increases in feed, fuel, and fertilizer prices, it's no surprise that dairy replacement rearing expenses have gone up as well. But, just how much does it cost dairy farms to raise these calves and heifers?

UW-Extension agriculture agents collected data from 49 dairy farms and custom calf and heifer growers across the state during the summer of 2007. The data was entered into an 'Intuitive Cost of Production Analysis' computer model, which allowed UW-Extension to determine average heifer raising costs in the areas of feeding, management, housing and labor. A few cost assumptions were made to standardize certain inputs. Those assumptions are listed in the chart below. All other numbers used in the study were producer-specific and represent real farm costs.

### The Calf Enterprise

In this study, a calf was defined as an animal raised from birth until she is moved into group housing. Calf rearing costs were broken down into four management areas: labor and management, feed cost, variable cost (veterinary service, bedding, death loss, and interest), and fixed costs (housing and equipment).

Labor and management proved to be the most expensive cost associated with raising the calves. It cost, on average, approximately \$153 per calf, or \$2.49 per day in labor and management costs.



Feed costs were the next biggest expense, contributing to over one third of the total cost. Feed costs included liquid feed (milk replacer or pasteurized milk), starter, and forages. Feed costs averaged about \$112 per calf, or \$1.83 per day. The feed costs varied quite a bit, anywhere from \$0.26 to \$5.08 per calf per day. This is due to differences in details such as weaning age, days on feed, liquid milk source. Variable costs were approximately \$0.80 per calf per day, while variable costs averaged about \$0.20 per calf per day.

The average total cost to raise a calf was \$326 per calf, or \$5.31 per calf per day. On average, custom calf growers had the lowest feed, labor and management costs per calf. However, the custom calf raisers in the survey did have more invested in facilities and equipment than the freestall or tiestall operations.

<u>Key Assumptions</u>	
Item	Assumption
Calf Value	\$500
Labor (paid and unpaid)	\$12/hour
Management (paid and unpaid)	\$20/hour
Interest Rate	8 percent
<b>Housing</b>	
Homemade Calf Hutch	\$200
Purchased Calf Hutch	\$300
Self Cleaning Floor Barn	\$15/sq foot
Greenhouse Barn	\$10/sq foot
Postframe Calf Barn	\$12/sq foot
Bedded Pack Barn	\$15/sq foot
Free Stall Barn	\$20/sq foot
Mound System	\$0.09/sq ft
Concrete Lot	\$3/sq foot
<b>Feed</b>	
Legume Silage (100% DM)	\$100/ton
Corn Silage (100% DM)	\$85/ton
Corn (100% DM)	\$116/ton
Soybean Meal (100% DM)	\$200/ton
Cow Refusals (100% DM)	\$100/ton

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### The Heifer Enterprise

Heifer rearing costs in this survey were determined to be approximately \$1,323 per heifer, or \$2.04 per day. A heifer was defined as an animal raised in a group setting until freshening. This was approximately 648 days for all three types of operations.

Feed costs were the largest expense for the tiestall, freestall, and custom heifer raiser operations. Average feed costs were \$684 per heifer, but ranged from \$399 to \$1,251 from farm to farm. The average daily cost for feed was \$1.06. Custom growers did feed the heifers the least expensively, about \$.015 to \$.018 cents lower than the other operations on average.

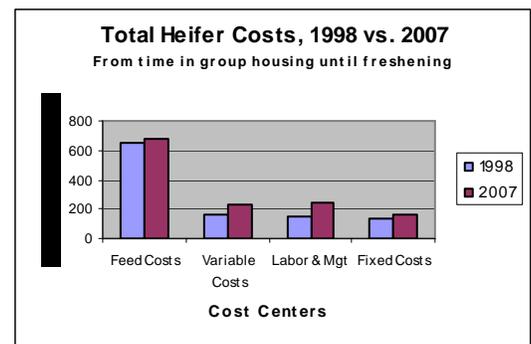
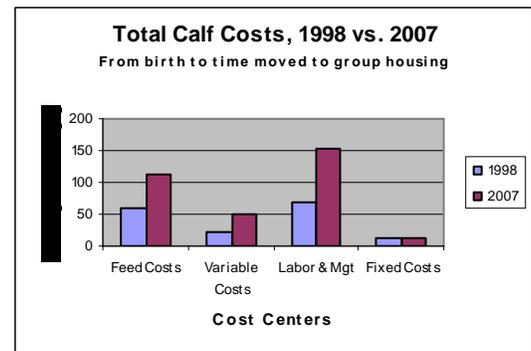
The other three cost categories contributed almost equally to heifer raising costs. Labor and management contributed 18 percent to the total heifer costs, which was about \$0.38 per day. You will notice that labor and management was a much less significant cost with the heifers than it was for the calves. Variable costs, which included bedding, veterinary, interest, death loss, and breeding costs, accounted for another 18 percent of total heifer costs, or \$0.36 per day.

### Total Costs— from Birth to Freshening

Since the cost of many farm inputs have more than tripled in the past few years, it's to be expected that dairy replacement rearing costs have increased as well. The 'Cost of Raising Dairy Replacements' study was conducted to determine just how much heifer raising costs had changed. As mentioned earlier, most data collected was producer- specific. Only a few key assumptions were made to standardize a few inputs. This was the same in 1998. Please note that in 1998, calf value was set at \$100 and labor and management were given \$7 and \$12 values per hour, respectively.

The total cost to raise a heifer, from birth to freshening, ranged from \$1,595 to \$2,935, for an average of \$2,149 per heifer (including the \$500 value for the calf) in the 2007 survey. This is a 58 percent increase from the costs calculated in 1998, where the average cost to raise a heifer was \$1,360 (including the \$100 calf value).

Average daily costs went from \$1.83 in 1998 to \$3.02 per head in 2007. What contributed most to these higher costs? Labor and management expenses were the biggest increase in the calf portion of the study, while increased feed costs made the biggest jump in the heifers. The charts below highlight the changes in the different cost centers between 1998 and 2007 in both the calf and heifer enterprises.



Calf and heifer raising is an expensive part of a dairy operation, but it's often overlooked since no direct income comes from the replacement herd. The data collected in this study provides an excellent benchmark on dairy replacement rearing costs for dairy producers and agri-business professionals. However, to truly understand your own costs of production, you need to analyze your actual farm inputs. This information should be used to compare the performance and cost of your own dairy replacement management, and help you look for possible areas to improve efficiency and benefit your bottom line.

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