



Options exist to reduce expenses

—by Lee Milligan, Pat Hoffman, and Annette Zwald—

EVERY heifer has to recover in her lifetime the \$1,648 (excluding \$500 calf cost) cost of raising her plus the cost of producing milk before she even turns a profit. Another way to look at it is a number of studies indicate raising a heifer represents 20 to 25 percent of the total cost of milk production. That means a careful evaluation of a farm's heifer enterprise presents an opportunity to enhance profitability.

To no one's surprise, the cost to raise a heifer from birth to freshening has risen 57 percent over the past decade. The total cost of raising a heifer from birth to calving averaged \$2,148 per head across the operations surveyed. This includes a \$500 opportunity cost for the value of the calf. Half of the cost increase was due to higher calf values (\$400 between 1998 and 2007).

We also learned there is considerable variation in the cost of raising heifers from birth to freshening between producers. The average cost to raise (without the \$500 opportunity cost of the calf) the heifer from birth to freshening was \$1,648 per heifer; however, the range varied \$1,340 between the high- and low-cost producer. The lowest cost producer was \$1,095 per head, and the highest-cost producer had a cost of \$2,435 per head (Figure 1).

What can we do?

It is obvious there are producers who have developed low-cost, competitive systems for raising replacement heifers. Examining the costs gives us clues as to where they are developing cost advantages.

Feed and labor and management are the two most critical areas in controlling the cost of raising a calf from birth to its move to group housing. These two areas represent 81 percent of the total cost of raising the calf . . . slight changes in them can have a significant impact.

For example, feed costs averaged \$1.83 per calf per day with a range of \$0.26 to \$5.08. A 10 percent reduction in liquid feed costs is a savings of \$7 per calf. Feed costs can be reduced by utilizing pasteurized whole milk versus purchased milk replacer and from lowering the weaning age without sacrificing growth and health of the calf.

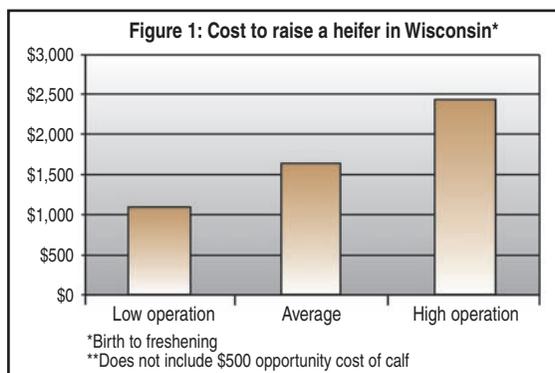
Custom calf growers have a significant advantage over dairy producers in the amount of care needed to raise a calf. They used approximately 5 hours of labor to raise a calf versus dairy producers who averaged 13 hours per calf. Because of greater labor efficiencies, the custom calf growers' labor and management cost averaged \$0.95 per calf per day versus \$2.51 in free stall operations and \$2.83 for tie stall herds. A one-hour reduction in the labor to raise a calf reduces costs \$0.20 per day or \$12 per calf.

Custom calf growers also are more willing to invest in labor-saving equipment or adopt practices to reduce their overall labor costs. Their total fixed costs for equipment and housing was \$0.41 per calf per day versus \$0.17 to \$0.19 per calf per day for other operations.

The authors are respectively: UW-Extension St. Croix County agriculture agent, dairy herd management specialist, and a James W. Crowley dairy management intern.

We compiled a list of labor-saving ideas for raising calves (Table 1). The usefulness and cost effectiveness does depend on the operation's size. Many are simple ideas that save steps, effort, and physical or mental stress. Most can be implemented by any size operation.

Feed cost accounted for 52 percent of the total cost of raising the heifer from time moved to group housing to freshening (or in the case of the



custom heifer grower, the time the heifer is returned to the producer). This area needs to be the focal point when analyzing the costs.

The average feed cost was \$683 per heifer or \$1.05 per day (average 648 days on feed). The low-cost producer was \$512 (\$0.74 per day for 690 days on feed) compared to the high-cost producer of \$1,251 (\$1.56 per day for 797 days on feed). A 10 percent reduction in feed costs would save \$68 per heifer or \$0.10 per day. This represents a savings of \$3,400 per 50 heifers.

Understanding heifer nutritional requirements and how to adjust to changing environments without overconditioning is important. Other feed cost factors include using efficient bunk feeding techniques and keeping control on forage costs. Test the forages being fed, and develop a ration based on the heifer's nutrient needs. Avoid over-feeding minerals, vitamins, and protein. Consider feeding ionophores to enhance feed efficiency. Intensive rotational grazing may provide an opportunity to reduce costs. Also, managing other areas such as heifer health and reproduction impacts the age the heifer freshens.

Feeding TMR weigh back to the heifers is another opportunity to reduce feed costs on many dairies. This can be a good source of feed; however, test the feed to determine the nutrient levels. Mineral and protein supplementation may not be necessary when it is included in the ration. On the other hand, energy levels may be

high and, therefore, the inclusion rate may need to be limited to avoid overconditioning. Before considering this option, be sure to consider biosecurity issues.

Need constant monitoring . . .

In the spring of 2007, feed prices were determined for the study to avoid the influence of variation of producers' prices on feed costs. Since that time, feed costs have risen approximately 40 percent. This represents a jump of \$270 per head or \$0.42 per day. This has a tremendous impact on the profitability of custom heifer growers and the decision-making process of dairy producers contemplating raising their own heifers or sending them to a grower.

The adoption of labor-saving methods or equipment is another opportunity to reduce labor costs in the calf-raising enterprise. This is especially true of the labor-intense calf-raising portion of the heifer-growing enterprise.

The cost of raising heifers has increased dramatically over the past nine years. It also demonstrates the importance for producers to calculate their own cost of production and to monitor it frequently due to the volatility of input prices. Relying on this survey as a proxy for your production costs may lead you to make erroneous decisions. The goal is not to raise a heifer for the lowest cost but to raise a quality dairy replacement to enter the milking herd at 22 to 24 months of age as cost efficiently as possible.

For more information: The results of this study are available at the following website: www.wisc.edu/dysci/uwex/heifmgmt/heiferreport.html. The budgeting tool used in this study is available on a CD containing the publication "Raising Dairy Replacements" and the computer programs "Ration Cost Analyzer" (analyzes the nutrient content and cost of heifer diets), "Heifer ProQWIK" (compares producer heifer growth rates with industry standards), and "Raising Cost Evaluator" (calculates the cost of raising calves and heifers). The entire CD is available at Midwest Plan Service for \$30. Check the Midwest Plan Service website at www.mwps.org

January 10: Calf costs
January 25: Heifer costs
February 10: Differences between operations
February 25: Labor efficiencies
March 10: Comparing 1998 to 2007
March 25: How does your operation compare?

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| Build liquid delivery system | Location of calf housing |
| In-line bucket system | Easy gate access to pens |
| Batch milk replacer mixers | Dishwasher |
| Automated bottle filling systems | Automated bottle filling equipment |
| Calf starter feeding bottles | All-in, all-out calf housing |
| Ergonomic calf pens or hutches | Water and electric utilities located close to calves |
| Liquid-feed mixing room | Bedding delivery carts |
| Power mixers to mix milk replacer | Rear access to calf pens or hutches |
| Dedicated calf equipment and feed mixing facility | Front fence buckets or bottle holders |
| Motorized carts to deliver liquid feeds, starter, and water | Handy carts to carry supplies |

Source: Raising Dairy Replacement, P. Hoffman, 2003