

Custom Raising Dairy Heifers: Expectations and Perspectives of Wisconsin Dairy Producers



P. C. Hoffman, UW-Madison Dairy Science Department

D. J. Schuster, UW-Madison Center for Integrated Agricultural Systems

A. J. Brannstrom, UW-Madison Center for Dairy Profitability

July, 2008

Custom Raising Dairy Heifers: Expectations and Perspectives of Wisconsin Dairy Producers

P. C. Hoffman, D. J. Schuster and A. J. Brannstrom

Introduction

Over the past two decades, the business of custom rearing dairy replacement heifers and calves has grown in concert with the modernization of the Wisconsin dairy industry. While specific surveys of the economic impact of Wisconsin's custom heifer sector have not been made, it is estimated that 100,000 to 150,000 dairy calves and heifers may be custom reared worth annual gross revenues of \$80 million. Wisconsin's custom dairy calf and replacement heifer rearing industry generates levels of gross revenue similar to the Wisconsin swine industry.

The economic impact of the custom heifer industry in Wisconsin is a paradox: while it generates \$80 million of income for heifer raisers, it is also an \$80 million expense paid by Wisconsin dairy producers. Because dairy producers are profit conscious, they seek management options that will reduce expenses or increase revenue. One of these management strategies is to transport heifers to a region of the United States where housing and feed costs are lower. The cost of transporting dairy heifers is relatively small in comparison to feed and housing costs. As a result, the segment of the custom raising industry devoted to older heifers in Wisconsin could partially be lost to other dairy or cattle rearing regions of the United States.

Rearing dairy heifers in managed rotational grazing systems is one option that could reduce costs and sustain a custom heifer industry in Wisconsin. There are, however,

Key findings

This survey explored the views, opinions and perceptions of Wisconsin dairy producers about custom grazing heifers. Results included:

1. All types of Wisconsin dairy producers perceive that grazing has positive implications for the health and productivity of dairy heifers.
2. In order to appeal to Wisconsin dairy producers, potential custom grazing heifer operations must be cost competitive.
3. Confinement operations are most likely to consider custom heifer raising as a management option, but are reluctant to consider custom heifer rearing for the summer only.
4. Wisconsin dairy producers seem adverse to custom heifer rearing businesses where heifers are grazed in the summer on one operation and sent to another confinement operation in the winter.
5. Any custom heifer business requires attention to cost and disease control to appeal to the concerns of dairy producers.

business challenges in developing a custom grazing heifer business. First, confinement operations have traditionally used custom calf and heifer rearing services more than smaller Wisconsin dairy farms. Confinement farmers may not want their heifers raised on pasture. Second, custom rearing dairy heifers is a high volume/low margin enterprise often requiring 1,000 heifers to support a viable full-time business. It is challenging to procure a large enough land base to graze large numbers of dairy heifers.

To address the first challenge, this project surveyed dairy producers to learn how they want their heifers raised, and how they feel about pasture-raised heifers. To date, there have been no formal surveys addressing how Wisconsin dairy producers would like their heifers raised. Understanding the views and opinions of Wisconsin dairy producers in regard to custom rearing heifers is central to whether the industry can be transformed by increasing reliance on managed pastures.

Methods

The researchers developed a series of survey questions to draw out Wisconsin dairy producers' expectations and perceptions of the custom dairy calf and heifer rearing industry. Topics included demographics, preferences in calf and heifer rearing methods, and cost of production scenarios. The survey was formatted by the UW Survey Center at the University of Wisconsin and mailed to 3,000 Wisconsin dairy producers. Survey results were summarized into simple means and analyzed using Excel cross tabulation, also called pivot tables.

Results

Survey demographics

The survey was completed and returned by 797 respondents representing a cross section of Wisconsin dairy production systems. Dairy producers were asked to select one of

Table 1

Question 2. How are your calves, heifers, and bulls/steers raised?
(numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Raise all male calves	23	21	14
Raise all female calves	90	86	65
Raise all bulls/steers	18	22	16
Raise all heifers	72	72	75
Have female calves custom raised	0	3	20
Have heifers custom raised	1	5	31
Other*	9	6	1

*The explanation for 'other' on the survey was most commonly that the operator sold some heifers and steers and also raised some, but did not raise them all. A few reported using custom raising for some of their heifers or using custom raising for a certain season or age/size of heifer.

three categories that best described their farm: grazing operation, conventional operation or large confinement operation. A grazing operation was defined as one that attempts to harvest up to one half of its herd’s forage needs using a grazing system. A conventional operation was defined as a family-sized dairy farm milking 50 to 150 cows with stored feed and primarily family labor. A confinement operation was defined as an operation that milks cows in a milking parlor, houses cows in a freestall barn and relies primarily on hired labor. One hundred responses were from grazing operations, 605 were from conventional operations and 71 were from confinement operations. The researchers broke down the survey results by operation type.

Approximately 72 percent of the participating farms raised all of their heifers; 21 percent of these operations raised dairy steers (Table 1, previous page). Twenty percent of large confinement operations had female calves custom raised, with no custom calf rearing indicated for grazing operations and three percent for conventional operations. The percentage of producers having heifers custom reared ranged from 1 to 31 percent.

Preferences

Data from grazing and conventional operations did not show a clear preference for housing systems for custom raised female calves (Table 2). In contrast, operators of large confinement dairy farms strongly preferred cold calf housing systems; either a cold housing barn (45 percent) or calf hutches (37 percent). These data suggest that if large confinement operations were the primary clients of a custom calf grower, the custom calf grower would likely want to adopt a cold calf housing system to align with the majority preference of their perspective clientele.

Table 2

Question 5a. How would you prefer a custom calf raiser to raise your female calves?
(numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Individually, warm calf barn	28	31	9
Individually, cold calf barn	24	17	45
In calf hutches	18	21	37
In groups using group feeding	30	31	9

Producers were asked to define their perspectives from very negative to very positive in regard to rearing heifers on pasture and its implications for heifer health and productivity (Table 3, next page). Graziers (operators of managed grazing farms) felt very positive about raising heifers on pasture. To a lesser extent, operators of large confinement dairy farms indicated a very positive opinion of grazing dairy replacement heifers. Survey data suggest that individuals wishing to develop a grazing custom heifer rearing business would not be limited by preconceptions of the effect of grazing on the health and productivity of dairy heifers.

Table 3

Question 6. Do you think that feeding and managing heifers on pasture has positive or negative implications for the health and productivity of replacement animals?
(numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Very positive	68	37	40
Somewhat positive	22	35	35
Neutral	7	24	23
Somewhat negative	1	4	3
Very negative	1	<1	<1

Producers were asked if they had ever considered having heifers custom reared, or if they had used a custom heifer raiser. The differences in responses between operation types were striking (Table 4). Eighty-eight percent of confinement dairy operators had considered or used custom heifer rearing in contrast to 21 percent of grazing operations. Operators of conventional dairy farms were in the middle; 44 percent had considered or used custom rearing. These data suggest that confinement operators consider custom heifer rearing as a management alternative to a much greater extent than graziers or conventional dairy farmers do, indicating that confinement operations would be a more robust set of clientele for custom heifer rearing operations.

Graziers strongly preferred rearing heifers on pasture (83 percent) and conventional and confinement operators had no clear preference for any one type of housing system for custom-raised heifers (Table 5, next page). The survey did not ask for the current heifer housing system, but data appear to reflect the dynamics of heifer housing systems presently used by each type of operation.

Table 4

Question 7. Have you ever considered having heifers raised by a custom heifer raiser, or have you used a custom heifer raiser?
(numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Yes	21	44	88
No	79	56	12

In general, cost was the primary concern about custom-raised heifers among all operation types (Table 6, next page). Other concerns included disease, quality of heifers, and loss of management control. Data indicate that custom heifer growing operations need to

Table 5

Question 7a. How would you prefer a custom heifer raiser to raise your heifers? (numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
In a freestall barn	17	21	33
On pasture	83	23	23
In outside lots or mounds	0	20	35
In bedded pack open barns	0	36	9

demonstrate cost savings to procure or sustain business. Disease was the second largest concern among all types of dairy operation, but graziers and conventional dairy farmers were concerned with disease to a larger extent than confinement operators (30 versus 17 percent). In total, data suggest custom heifer rearing operations would need to control costs and disease to address dairy producers' concerns.

Table 6

Question 9. What is your biggest concern with custom raising of heifers? (numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Disease	27	32	17
Quality of heifers	15	13	27
Cost	33	34	44
Loss of management control	20	20	11
Other	5	2	2

Hypothetical scenarios

To address the potential for developing a custom grazing heifer business, two hypothetical questions were included. First, would a dairy producer consider having heifers custom grazed just for the summer if this reduced labor and feed costs? Results of this question are listed in Table 7 on the next page. Graziers were most open to idea of allowing another grazing operation to rear their heifers for the summer if it saved them cost, labor and feed. Only 22 percent of confinement operators would consider custom rearing heifers on a seasonal basis. These results are logical because grazing operations are more familiar with switching between grazing and confinement for the summer and winter seasons. Confinement operators would be required to de-populate and re-populate heifer facilities by season, which is unfamiliar in their present management system. Survey data suggest that custom grazing dairy heifers may need to offer both summer grazing and winter confinement.

Table 7

Question 11. If you are currently raising your own heifers, would you consider having a custom heifer raiser graze your heifers on pasture just for the summer if it saved you labor and feed costs, etc? (numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Yes	42	31	22
No	56	62	47
Not currently raising heifers	2	8	31

Producers were also asked about their perceptions of a business arrangement where heifers would be grazed in the summer on one farm and sent to another farm for winter confinement at an extraordinary cost savings (\$950.00/heifer). Results of this question are listed in Table 8. Most producers rejected this arrangement. The rejection rate was higher for grazing operations (83 percent) as compared to confinement operations (58 percent). The rejection rate of this custom heifer rearing arrangement was somewhat surprising because respondents indicated that cost of rearing heifers was a primary concern. This hypothetical arrangement represents a cost savings of \$500.00 per heifer as compared to industry averages, yet dairy producers rejected the business structure regardless of cost. Survey data suggest a custom heifer business where heifers are grazed in the summer on one farm and sent to another farm in the winter for confinement would not appeal to the majority of dairy producers.

Table 8

Question 14. If a custom heifer business were available that raised heifers in confinement during the winter months for around \$1.60/heifer/day and then transferred them to another operator that utilized pasture for around \$1.00/heifer/day during the summer months, would you consider allowing such a business to raise your heifers? The total cost of raising a heifer this way would be around \$950/heifer. (numbers represent percentage responding in each category)

	Grazing	Conventional	Confinement
Yes	17	22	42
No	83	78	58

For custom calf and heifer raisers to appeal to most Wisconsin dairy farmers, they need to manage animals at one farm throughout the year. They also must control disease. If they can provide high-quality service at a competitive cost, they will be on track to build successful custom heifer raising businesses.

