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Custom Dairy Heifer Growing: Summary and Analysis of a 2001 Grower Survey

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While dairy farms have been increasing in size and specialization for decades, recent years have witnessed an acceleration of these trends. As a dairy farm specializes in milking cows, other enterprises are often curtailed. Management, labor, and capital constraints necessitate a movement towards outsourcing activities that were once a part of the smaller, but more diversified, dairy operation. One increasingly common example of outsourcing among dairy farmers is utilizing a custom replacement heifer grower. By outsourcing the replacement heifer enterprise, a dairy farmer may free up labor, management, feed, or facilities for use by the milking herd.

As might be expected, an industry sub-sector has been created in response to the demand for custom heifer raising. However, little objective and comprehensive information is available about this sub-sector. This project was undertaken to begin to examine custom heifer growers, their management practices, operations size, and contracts. The survey results and analysis presented here may be useful for existing custom heifer growers, dairy farmers, dairy industry personnel, and others interested in the custom heifer sub-sector.

Objectives

The survey had the following objectives:
(1) To examine the size, structure, and management of the custom heifer raiser industry;
(2) To identify important raising practices;
(3) To examine contract and performance specification.

The survey gathered information on a wide variety of variables related to the structure and operation of the custom heifer grower industry, including:

- Current farm size, facilities and production methods;
- Operator and labor characteristics;
- Heifer raising practices;
- Contract form and incentives specification.

Survey methods

Surveys were sent to 187 dairy heifer growers. These farmers were not randomly selected. Instead, the survey recipients that identified themselves as part of the custom heifer grower sector through their membership in the Professional Dairy Heifer Grower Association or through feed industry contacts. The survey was mailed in spring 2001. Seventy-two surveys were returned representing a 38.5 percent response rate (the remaining 115 were not returned). Of the respondents, 61 identified themselves as current custom heifer raisers (Table 1). Four respondents were growing their own heifers for sale and one was in transition to becoming an active heifer grower (these are included in “other” in Table 1). Five respondents indicated that they were not growing heifers and had no plans to; it is likely these respondents were mis-identified as growers and are instead involved in the industry in another capacity.

Table 1. Response Profile

	Number of respondents	Percent of respondents
Custom heifer grower	61	32.6
Other heifer grower	4	2.1
Not growing heifers	5	2.7
Survey not returned	116	61.5
Total	187	100.0

Because this report concerns heifer growers, only those respondents that identified themselves as growing heifers are included in the summary statistics reported (a total of 65 potential respondents for each question). Throughout the report, the summary statistics in presented in this report are accompanied by the "number of farms reporting" which indicates the total useable responses or respondents to a given question. Consistent with Michigan State University research requirements, survey respondents had the option to answer, or decline to answer, individual questions at their discretion. This explains the variation in number of farms reporting across questions.

Another consideration with regard to summary statistics is that some questions could be answered in multiple ways by the same operator (e.g., At what age do you receive heifers?). For questions where this occurred, the percentages describe the relative amount of the total responses, rather than respondents. These situations are noted in table footnotes. For questions where a single response was appropriate, the values can be interpreted as number and percent of respondents.

The characteristics are measured using average, standard deviation, minimum and maximum. The standard deviation provides an indication of how widely the data are distributed about the average. The average value plus or minus one standard deviation would encompass about two-thirds of the observations for each variable, assuming that the variable is approximately normally distributed.

The responding operations were located in 23 states from coast to coast. The states were divided into four geographic regions so that some of the characteristics could be examined across regions. The regions and associated states with respondents include:

- West: California, Colorado, Idaho, Nebraska, New Mexico, Utah, Washington;
- Midwest: Iowa, Illinois, Indiana, Kansas, Ohio, Minnesota, Missouri, Wisconsin;
- Northeast: Massachusetts, New York, Pennsylvania; and
- South: Florida, Georgia, South Carolina, Texas, Virginia.

The Midwest region produced 29 completed surveys while the other three regions produced 12 each. Where appropriate or interesting, the regional averages or distribution are discussed.

The report is organized into four sections that answer the following questions: What do the heifer grower operations look like? Who are the custom heifer growers? What are the common heifer management practices? and, What are the typical contract specifications? The result is an initial look at this dairy industry sub-sector.

A. Farm Characteristics

The average operation across all 65 respondents had about 1,200 heifers on site (Table 2). Because several operations keep the heifers less than a year, the average operation handled nearly 1,700 operations per year. The operations ranged in size from 30 heifers to 20,000 heifers currently on the operation. As we shall see in more detail below, the age in and out of the custom raising operations varied widely.

The average operation owned 463 acres and rented another 185 acres (Table 2). Again the range was large from no acres owned to more than 7,500 in one case. Almost half of the heifer raising operation had between 250 and 1,000 heifers on-farm (Table 3).

Table 2. Average farm size

	Average	Standard deviation	Minimum	Maximum
Heifers				
On-hand	1,224	3,050	30	20,000
Capacity	1,492	3,650	30	60,000
Finished yearly	1,694	7,647	20	25,000
Acres				
Owned	463	981	0	7,520
Rented	185	230	0	1,050
Total operated	638	1,112	10	8,520

Table 3. Distribution of heifer herd size, volume and capacity

Number of heifers	Heifers on-farm	Annual heifer volume	Heifer enterprise capacity
		(number of respondents)	
1-50	2	5	2
51-100	5	9	2
101-250	14	14	12
251-1,000	32	22	30
1,001-5,000	9	10	12
> 5,000	3	2	3
Number of respondents	65	62	61

Most respondents indicated that they operated 250 or more acres with a large portion devoted to cropland and little to pasture (Table 4). Comparing the number of heifers raised to the acres operated shows the general expected pattern that more heifers are correlated with more acres (Table 5). However, it is interesting to note that the large heifer operations were equally as likely to be on relatively small acreage as they were on more acres. The mid-sized heifer operations were almost perfectly correlated in size with acres operated. Perhaps indicating that the mid-sized heifer operations were associated with large crop enterprises while the large heifer operations specialized in heifer growing.

Table 4. Acres operated, cropland, and pasture

Acres	Acres operated	Acres cropland	Acres Pasture
		(number of respondents)	
0-20	5	13	31
20-100	4	7	18
100-250	13	10	9
250-1,000	32	30	5
>1,000	9	5	2
Number of respondents	63	65	65

Table 5. Heifers raised vs. Acres operated

	Acres Farmed					
Heifers Raised	0-100	101-250	251-500	501-1000	>1000	Total
0-100	4	2	1	0	0	7
101-200	0	6	5	1	1	13
201-500	0	3	4	5	3	15
501-1000	2	1	2	9	3	17
>1000	3	1	2	3	2	11
Total	9	13	14	18	9	63

With respect to regional average size, the pattern is precisely the same as that of milking herd size. The largest heifer operations, on average were in the West region (Table 6). Followed by the South, Midwest and Northeast. The average heifer operation in the West region also rented few acres compared to the other regions.

Table 6. Average farm size by region

	Midwest	West	Northeast	South
Heifers				
On-hand	553	4,215	384	693
Capacity	655	4,860	483	926
Finished yearly	565	6,768	247	513
Acres				
Owned	322	1,055	193	383
Total operated	538	1,060	296	660

Many respondents indicated that heifers were not the only farm enterprise (Table 7). The most common enterprise was crops. Many also mentioned that other livestock enterprises were present.

Table 7. Other farm enterprises

Enterprise	Number of responses[1]	Percent of responses
Milk herd	5	7.9
Cash crops	25	39.7
Other livestock	21	33.3
Other	13	20.6
None	21	33.3

[1] Multiple responses were possible.

Examining the mix of existing farm enterprises across geographic regions reveals that milking herds were more common on Midwest farms than in other regions (Table 8). Crop enterprises complemented the heifer growing enterprise and were the most common other farm enterprise. The heifer growers in the West and Northwest were the most specialized in heifer growing.

Table 8. Other farm enterprises by region

	Midwest	West	Northeast	South
	(percent of responses)			
Milk herd	7.7	0	0	11.8
Cash crops	41.0	21.4	20.0	17.6
Other livestock	23.1	28.6	20.0	29.4
None	17.9	35.7	46.7	17.6
Other	10.2	14.3	13.3	29.4
Responses	39	14	15	17

Nationally, about two-thirds of the respondents indicated that they were sole proprietors (Table 9). The remaining respondents were spread across partnership and corporation legal business arrangements.

Table 9. Farm ownership arrangements

Type of Ownership	Number of respondents	Percent of respondents
Sole proprietor	43	66.2
Partnership	9	13.8
Limited partnership	4	6.2
Corporation, family	7	10.8
Corporation, non-family	2	3.1
Total	65	100.0

B. Operator and labor characteristics

The survey allowed an examination of who the custom growers operators were and how they became custom heifer growers. One of the general conceptions held about custom heifer raisers is that they are often former dairy farmers that sold the milking herd and now use their dairy facilities, labor, feed, and experience to raise heifers. In this section questions of this type are examined.

The principal operator held a full-time off-farm work on only about ten percent of the responding operations (Table 10). About half the responses indicated that heifer growing was their primary business. Nine farms indicated multiple categories described the principal farm operator. On four of these occasions, the principal operator was a heifer grower who was partially retired. The other situations were either operations with other farm enterprises or off-farm employment in addition to the heifer growing endeavor.

Table 10. Job description of principal operator

	Number of responses	Percentage of responses
Heifer raiser with no other employment	35	47.3
Heifer raiser with a full time job off-farm	7	9.5
Heifer raiser with a part time job off-farm	3	4.1
Heifer raiser with other farm enterprises	25	33.8
Heifer raiser who is partially retired	4	5.4
Total	73	100.0

[1] Some respondents answered multiple times so that the total sums to more than 65 responses.

The respondents indicated many reasons for entering into custom heifer growing. The most common response was for the business opportunity (Table 11). The second most common response was in order to utilize forage crops that were grown by the operation. Using or capturing the fixed-costs on out-of-date or otherwise unused livestock facilities was indicated by about 25 of the operations.

Table 11. Reason for entering heifer growing

	Number of responses[1]	Percent of responses
Good business opportunity	50	28.9
Use out-of-date livestock facilities	24	13.9
Recapture fixed cost of unused facilities	26	15.0
Regular working hours	19	11.0
Use and marketing of forage crops	41	23.7
Other	13	7.5
Total	173	100.0

[1] Sixty-five respondents often provided more than one response.

As was indicated above, many of these operations currently operated other farm enterprises in addition to dairy heifers. However, many also indicated that they had moved from other farm enterprises into dairy heifers. Thirty of 56 respondents indicated that they previously had a milking herd (Table 12). Thirteen respondents indicated that they had moved into dairy heifer growing from other livestock enterprises.

Table 12. Previous farm enterprises

	Number of responses	Percent of responses
Milking herd	30	53.6
Cash crop	8	14.3
Other livestock	13	23.2
Other	5	8.9
Total	56	100.0

The reasons for eliminating the previous farm enterprises included personal preferences, tight profit margins and outdated milking facilities that would require substantial new investment (Table13).

Table 13. Reasons for eliminating other farm enterprises

	Number of responses[1]	Percent of responses
Outdated milking facilities	14	17.5
Lack of available labor	15	18.8
Tight margins	18	22.5
Ability to pursue off-farm job	2	2.5
Personal preference	21	26.3
Other	10	12.5

[1] Forty-four farms responded with many having multiple responses.

Sixty-five percent of respondents (42 of 65) indicated that they had built or purchased new facilities in order to raise dairy heifers. Investment in heifer raising averaged $132,617 in machinery and equipment and $259,788 in buildings and facilities. The break-down of investment ranges is displayed in Table 14.

Table 14. Heifer enterprise investment

Investment level	Investment in machinery and equipment	Percent of respondents	Investment in buildings and facilities	Percent of respondents
	(respondents)		(respondents)	
0-$10,000	4	8.5	4	8.5
$10,001-$50,000	14	29.8	8	17.0
$50,001-$100,000	9	19.1	10	21.3
$100,001-$200,000	12	25.5	11	23.4
$200,000-$350,000	5	10.6	5	10.6
>$350,000	3	6.4	9	19.1
Total	47	100.0	47	100.0

With respect to employment and labor on the custom heifer growing operations, the average length of managerial employees was more than seven years while the average laborer employment was just more than four years (Table 15). When asked about labor availability, 33 respondents indicated that finding labor was difficult or very difficult (Table 16).

Table 15. Employment duration

	Management employment[1]	Laborer employment[2]
	(months)	(months)
Average	86.7	48.8
Minimum	12	4
Maximum	240	180

[1] Ten farms provided the length of managerial employment.
[2] Thirty-six respondents provided length of laborer employment.

Table 16. Labor availability

Degree of difficulty	Number of respondents	Percent of respondents
Very difficult	15	24.6
Difficult	18	29.5
Neutral	18	29.5
Easy	3	4.9
Very easy	0	0
Not applicable	7	11.5
Total	61	100.0

Operator characteristics examined included age, education and experience. The average principal operator was 51 years old (with a standard deviation of 10.7 years). Table 17 includes the distribution of operator age for the principal operator as well as up to four partners. The bulk of the primary operators were over 40 years of age. With respect to formal education, the distribution ranged from 'did not complete high school' to almost 18 percent of respondents that had post-graduate work (Table 18). Experience was measured in three potentially over-lapping categories: farming, dairy farming and heifer raising. The average principal operator had 32.2 years of experience in farming (standard deviation of 13.2 years); 25.5 years of experience in dairy farming (standard deviation of 15.3 years); and 14.7 years of experience in heifer raising (standard deviation of 12.7 years). Table 19 displays the relative distribution of principal operator experience by category. As expected from with regard to a young industry such as custom heifer raising, there was, in general, substantially less experience as a heifer raiser than total farming experience.

Table 17. Principal operator age

Age	Principal operator	First partner	Second partner	Third partner	Fourth partner
	(number of responses)				
<31	1	4	5	1	1
31-40	8	8	2	1	0
41-50	23	9	2	0	0
51-60	19	6	2	1	0
>60	11	2	1	0	0
Total	62	29	12	3	1

Table 18. Principal operator education level

Education level	Number of respondents	Percent of respondents
Less than twelve years	1	1.6
High school graduate	19	30.6
Technical training beyond HS	10	16.1
Some college	21	33.9
Post-graduate college work	11	17.7
Total	62	100.0

Table 19. Principal operator experience

	Years						
Occupation	<5	6-10	11-20	21-30	31-40	>41	Total
	(number of responses)						
Farming	0	4	5	20	12	11	52
Dairy farming	3	7	8	13	6	6	43
Heifer raising	17	16	13	9	3	3	61

C. Management Practices

Examining the management practices utilized provides a foundation for understanding current industry standards. The practices that were collected on the survey included: number of clients, facilities, age in and out of the heifer operation, breeding, and feeding practices.

The management practices examined include the number of dairy farms that send heifers to the grower, 83 percent of respondents raised heifers for more than one dairy producer while the remaining 17 percent, 11 operations, raised heifers exclusively for a single dairy producer (Table 20). The simple average number of dairy farm clients was 5.8.

Table 20. Number of dairy farm clients

Number of dairy operations	Number of respondents	Percent of respondents
1	11	17.7
2-5	36	58.1
6-10	7	11.3
11-20	6	9.7
>20	2	3.2
Total	62	100.0

Examined by region, the largest group in each geographic region was two to five dairy farm clients (Table 21). One farm in the Midwest region indicated that they raised heifers for 11 or more clients.

Table 21. Number of clients by region

Number of dairy operations	Midwest	West	Northeast	South
		(number of respondents)		
1	2	3	3	3
2-5	17	6	7	6
6-10	3	1	1	2
11-20	5	0	1	0
>20	0	1	0	0
Total	27	12	12	11

A primary reason that dairy farms might be concerned about the number of producer's heifers that are co-mingled on the custom raiser operation is biosecurity. Even in the presence of many dairy herds supplying heifers to the operation, some measures may be taken to enhance biosecurity. Thirty of 62 respondents indicated that heifers are quarantined from other heifers for a period of time when they arrive on-farm. However, only six of 57 farms permanently separated heifers according to dairy herd origin.

The distance to dairy farm client operations varied widely (Table 22). Heifers traveled the farthest distance in the West region where two-thirds of the respondents indicated that the distance to client farms was greater than 50 miles.

Table 22. Distance to dairy farm client operations

Miles	Responses
0-10	28
10-20	19
20-50	29
>50	24
Total	100

The initial contact between the heifer grower and the dairy farm occurred by many different sources (Table 23). The single most common method was through an acquaintance or neighbor followed in popularity by using a third party.

Table 23. Source of farmer contact

	Number of responses	Percent of responses
Acquaintance/neighbor	39	41.1
Advertisement	13	13.7
Third Party	31	32.6
Other	12	12.6
Total	95	100.0

The custom heifer growers were also asked to comment on the primary reason that the dairy farmers may be sending heifers to them. Consistent with the thought that dairy farms outsource when they are expanding the dairy herd that was the most common reason given (Table 24). About 91 percent of the dairy farms expanded their milking herd after sending heifers to the custom grower while only nine percent had not. Lack of heifer facilities, management time, and labor were the next most common reasons heifers were sent to the custom growers and all could also be related to dairy herd expansion.

Table 24. Primary reason farmer outsourcing heifers

Reason	Responses[1]	Percent of responses
Lack of space/desire to expand milking herd	37	24.2
Lack of heifer facilities	33	21.6
Lack of labor	29	19.0
Lack of feed	15	9.8
Lack of management time	33	21.6.
Other	6	3.9
Total	83	100.0

[1] A total of 60 respondents answered this question; many indicated multiple reasons.

The facilities used by custom heifer growers included free stall barns, bedded packs, and pastures. Many operations utilized more than one type of operation (Table 25).

Table 25. Heifer facilities

Facility Type	Responses[1]	Percent of responses
Free stalls	28	25.9
Bedded pack	37	34.3
Pasture	29	26.9
Other	14	13.0
Total	108	100.0

[1] Many respondents indicated the presence of multiple types of facilities.

Consistent with facilities and labor constraints as well as the needs of dairy farm clients, the respondents indicated a wide range of heifer ages into and out of the custom operation (Table 26). The single most common age that heifers entered was following weaning—after two months of age and before 6 months. The most common exit age group from the custom grower operations was after breeding.

Table 26. Age heifers are received

Age	Heifers enter	Heifers exit
Birth to weaning (0-2 months)	29	2
Transition (2-6 months)	36	7
Growth to breeding (6-16 months)	19	11
Bred to fresh (16-23 months)	7	50
Total responses[1]	91	60

[1] Many respondents received and/or exited heifers in multiple age groups.

Most of the heifer operations did not purchase silage or haylage implying that the forage needs were grown on-farm (Table 27). About half of the operations purchased some grain for heifer feed and the majority purchased concentrate.

Table 27. Feed acquisition practices

	Percent of Heifer Feed Purchased							Total
Feed Stuff	0	1-15	15-30	31-45	46-60	61-80	81-100	responses
	(number of responses)							
Grain	23	4	0	0	3	1	28	59
Corn Silage	52	0	3	0	0	0	8	63
Haylage	52	0	3	0	0	0	8	63
Concentrate	15	2	1	0	0	0	42	60
Dry Hay	30	5	0	0	8	1	16	60

The heifer grower held the responsibility for breeding heifers on most operations (Table 28). Most of the exceptions involved a third party responsible for breeding.

Table 28. Breeding responsibility

	Number of respondents	Percent of respondents
Heifer grower	41	66.1
Dairy producer	5	8.1
Third party	16	25.8
Total	62	100.0

With respect to breeding methods, most farms used at least some artificial insemination (Table 29). Thirty-six respondents indicated that at least some heifers were bred by dairy bulls while eight indicated that some beef bull usage occurred. In general, the bulls were used as clean up after artificial insemination failed to generate a pregnancy.

Table 29. Breeding method

	Percent of heifers bred						
Technique	0	1-20	21-40	41-60	61-80	81-100	Total
	(number of responses)						
Artificial insemination	0	0	1	1	10	38	50
Dairy bull	2	23	4	1	1	5	36
Beef bull	3	3	0	1	0	1	8

Age at first calving determines when the heifer becomes a productive member of the milking herd. Most heifers were bred initially between 13 and 15 months (Table 30). If the initial breeding were successful, age at first calving would be 22 to 24 months. A standard goal is 24 months for first calving and averaging that age requires that initial breeding occur earlier than 15 months. Of the 56 respondents that answered the survey question regarding age at first breeding, only 13 indicated initial breeding after 15 months of age.

Table 30. Age at first breeding

Age in months	Number of responses	Percent of responses
12-12.9	3	5.3
13-13.9	27	47.4
14-14.9	14	24.6
15-15.9	11	19.3
16+	2	3.5

There were several criteria used to determine when the heifers were ready for breeding. The average age criteria was 13.5 months (38 respondents). Forty respondents indicated that weight was a criteria with an average breeding weight standard of 800 pounds. Eighteen respondents indicated that height was a criteria with the average height standard being 50 inches.

With respect to average daily gain, most heifers above six months of age were targeted for 1.76 to 2 pounds per day (Table 31).

Table 31. Average rate of gain by age group

	Daily gain in pounds							
Age Group	<1	1.01 -1.25	1.26 -1.50	1.51 -1.75	1.76 -2.00	2.01 -2.25	>2.25	Total
	(number of responses)							
Birth-weaning	0	2	4	5	7	0	1	19
Weaning-6 mo.	0	0	1	3	19	4	3	30
6 mo.- breeding	1	0	3	3	34	1	1	43
Bred-pre-fresh	1	0	3	11	19	3	1	38

Respondents were split regarding whether body condition was scored. Almost two-thirds indicated that scores were not generally performed (Table 32).

Table 32. Body condition score assessment

	Number of respondents	Percent of respondents
Yes	22	37.3
No	37	62.7
Total	59	100.0

The average veterinary and medical expenses per heifer were generally between one and five dollars per across age groups (Table 33).

Table 33. Veterinary and medical expenses

	Dollars per heifer					
Age group	$1-$5	$6-$10	$11-$15	$16-$20	$21+	Total
	(number of responses)					
Birth to weaning (0-2 months)	9	3	3	1	1	17
Transition (2-6 months)	11	6	0	1	0	18
Growth to breeding (6-16 months)	10	6	1	2	1	20
Bred to fresh (16-23 months)	8	4	4	2	0	18

D. Contract Specifications

Contracts are important to lay out formal expectations and arrangements between the dairy farmer and custom grower. A contract can provide clear incentives and payment arrangements while providing assurances to both parties. Contract use and clauses were an important aspect of the survey. Results revealed that a total of 69 percent of respondents used some form of written contract (Table 34). The majority of respondents, eighty-five percent, contracted directly with their dairy farm clients rather than using a third party intermediary (the remaining 15 percent of 62 responses).

Table 34. Contract form

	Number of responses	Percent of responses
Verbal	21	31
Written	39	57
Written with verbal changes	8	12
Total	68	100

Many different payment schemes were utilized; sometimes several methods were used by a single heifer grower. However, just over fifty percent of the respondents indicated that a set daily charge per heifer per day was the primary type of contract payment (Table 35). The second most common single methods were purchasing the heifers from the dairy farmer and later selling them back (Sell-buy back) and a rate based on weight gain. Unique combinations were also indicated by ten farmers to be the primary method to determine rates.

Table 35. Primary contract payment method

Contract Type	Number of respondents	Percent of respondents
Daily charge per head per day	32	51.6
Sell-buy back	8	12.9
Gain based	8	12.9
Feed cost plus yardage	1	1.6
Set payment per heifer	3	4.8
Profit-sharing agreement	0	0.0
Combination of methods	10	16.1
Total	62	100.0

Examining the contract type across heifer size several patterns emerge. Both the sell-buy back and gain-based contracts are not used by the smallest category of heifer growers (Table 36). Of the 10 operations that used a combination of two or more methods, all used either the daily charge or the sell-buy back method as part of the combination.

Table 36. Number of heifers raised verses contract type

	Contract payment method						
Heifers	$/head/day[1]	Sell-buy back	$/pound[2]	Feed+yard[3]	Set payment	Other[4]	Total
	(number of responses)						
0-100	2	0	0	0	1	3	6
101-200	8	3	1	0	0	0	12
201-500	5	2	4	1	0	2	14
501-1,000	11	2	1	0	1	2	17
>1,000	6	1	2	0	1	3	13
Total	32	8	8	1	3	10	62

[1] '$/head/day' is the 'daily charge' method.
[2] '$/pound' is the 'gain based' method.
[3] 'Feed+yard' is feed cost plus a yardage fee.
[4] 'Other' is some combination of methods but always includes either daily charge or the sell-buy back method.

The dominant payment method in the Midwest, West and Northeast regions was set daily charge per head. In the South region, the single most common method was based on rate of gain. Five of the eight arrangements to purchase the heifer and later sell it back to the dairy farmer, 'sell-buy back method', were in the Midwest region.

Of respondents that charged per head per day, the most common single charge was $1.50 and the average overall daily charge was $1.52/heifer. In fact, 51 percent of the respondents indicated an average chare between $1.40 and $1.60 per heifer per day. By age group, the average charge was $1.88 per day from birth to weaning; $1.49 per day from weaning to six months of age; $1.50 from six months to breeding; and $1.59 while bred. These charges reflect the fact that calves require more labor and relatively expensive milk-replacer prior to weaning and thus that is the most expensive period. Operations that took heifers from prior to weaning through to pre-fresh charges a weighted average daily charge of $1.60 per heifer.

In general, the charges ranged widely but the most common group was between $1.50 and $1.59 per heifer per day (Table 37).

Table 37. Average daily charge by age group

	Average charge per group ($/heifer/day)							
Age	<0.76	0.76-1.25	1.26-1.49	1.50-1.59	1.60-1.74	1.75-1.99	2.00+	Total
	(number of respondents)							
Birth – weaning	0	0	1	2	3	3	7	16
Weaning-6 mo.	1	2	6	2	3	4	0	18
6 mo.- breeding	2	3	2	6	3	5	0	21
Bred – pre-fresh	1	0	5	3	5	2	1	17

While only ten respondents indicated a gain-based charge, the range of rates was quite wide (Table 38). Half of the respondents charged between $0.75 and $0.99 per pound of gain.

Table 38. Gain-based contract rates

Charge per pound of gain	Number of responses	Percent of responses
0-0.24	1	10
0.25-0.49	0	0
0.50-0.74	1	10
0.75-0.99	5	50
1.00+	3	30

Payments were mostly received monthly (Table 39). Nineteen respondents indicated that payment was received when the heifer was sent back to the dairy farm client. Some respondents indicated that there were multiple arrangements depending on the client.

Table 39. Payment schedule

Period	Number of responses	Percent of responses
Weekly	0	0.0
Monthly	48	69.6
Bi-weekly	1	1.4
Bi-monthly	1	1.4
When heifer	19	27.5
Total	69	27.5

Contracts contained bonus clauses in only eight instances (Table 40). The most common bonus utilized was related to a target rate of gain.

Table 40. Bonuses utilized

	Responses	Percent of responses
Bonuses based on mortality	1	2
Bonuses bases on rate of gain	5	9
Bonuses based on market prices	0	0
Profit sharing	0	0
No bonuses	46	85
Other	2	4
Total	54	100

Responsibility for veterinary bills was shared eleven percent of the time (Table 41). Shipping mortality was most often the responsibility of the dairy farmer (Table 42). Heifer mortality on the heifer grower operation was shared in some cases and in others depended on the length of time on the operation (or since arriving from the dairy farm) (Table 43).

Table 41. Responsibility for veterinary bills

	Number of responses	Percent of responses
Custom grower	45	71
Owner/farmer	11	17
Shared	7	11
Total	63	100

Table 42. Responsibility for shipping mortality

	Number of responses	Percent of responses
Custom grower	15	25
Owner/farmer	41	67
Shared	5	8
Total	61	100

Table 43. Responsibility for mortality on heifer operation

	Number of responses	Percent of responses
Custom grower	25	40
Owner/farmer	14	23
Shared	23	37
Total	62	100

Some other contract or monitoring considerations were also gathered in the survey. About 23 percent of the operations (14 of 62) indicated that heifer performance was monitored by an outside party. Thirty percent of the operations (17 of 56) responded that financial adjustments were made for sick or poorly performing heifers. Finally, thirty-six percent of respondents (18 of 50) indicated that the dairy farmer had the option to refuse payment if heifer performance standards were not met.

Considering the overall satisfaction with the contract arrangement, most custom heifer growers were 'satisfied' to 'extremely satisfied' (Table 44). None of the 62 respondents to this question indicated complete dissatisfaction with their current contract.

Table 44. Satisfaction with contract

Satisfaction level	Number of respondents	Percent of respondents
Not at all	0	0
Somewhat	2	3
Satisfied	23	37
Above average	24	39
Extremely Satisfied	13	21
Total	62	100