

What Management Practices Are High Producing Dairy Herds Using?

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This NebGuide outlines management practices used in high-producing dairy operations.

A national dairy survey was undertaken by the National Health Monitoring System in 1996, and the results are still valid and being used today.

This survey of management practices was sent to 2,500 herd managers in 20 states representing 83.1 percent of all dairy cows in the United States. The states included in the survey were California, Florida, Idaho, Illinois, Indiana, Kentucky, Michigan, Minnesota, Missouri, New Mexico, New York, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Vermont, Washington and Wisconsin.

The survey asked 13 questions ranging from computer use, ration balancing, BST use and veterinarian usage to various calf rearing procedures. The survey results were categorized by various herd sizes, as well as high and low milk production groups. These results can be used to help you identify where your herd management practices rank nationally.

Look through the results in *Table I*. Find your herd size and production grouping and check where your herd falls in the various categories. After checking your rank, look at the most common management practices used in higher-ranked herds. Take an objective look at the “best management practices” for your herd size and determine whether there are reasonable and feasible changes you could make to increase your production.

This table also is useful if you are considering expanding your herd. If you fall in the high production grouping for a given herd size, look at the management options high milk production herds follow in the next herd size category. If you are considering expansion, you should attempt to incorporate the “best management practices” used by the next higher herd size. If you are not in the high production grouping and are considering expanding your herd, then it would be more cost effective and beneficial to change management practices to increase production rather than consider expansion. It is more important to get better before getting bigger.

A few things on *Table I* are of special interest. The use of on-farm computers is an integral part of the record keeping system as herd size and production increases.

In the feed area, use of both a Total Mixed Ration (TMR) and testing forages is a common practice among all high production herds in each category. These feeding practices have been shown to be an effective way to increase production over time. Feeding a TMR allows the cow to consume exactly the proper feed constituents with each mouthful. This feeding system allows the cow’s rumen to function properly.

Grazing heifers and cows has become an area of interest over the past few years. As can be seen in *Table I*, the percentage of producers who graze decreases as herd size increases. This is not unexpected, as rotational grazing of large numbers of cows and/or heifers would require considerable land. Grazing heifers and dry cows has several advantages for smaller dairies and should be considered during the spring, summer and early fall. There certainly is a place for rotational grazing on many farms.

One interesting finding from this survey is that even in the largest herd category, over half the producers still prefer to raise their own forages. Results show producers want to control their own forage growing and harvesting management.

Bovine somatotropin (BST) tends to be used more widely in larger herds. Another statistic supporting BST as increasing milk production is the fact that over five times the percentage of high production herds use BST as do not.

The rest of the categories are self-explanatory. Separating calves from their mothers soon after freshening and getting at least four quarts of colostrum into the calf as soon after birth as possible are simply good management practices which should be a routine part of a good heifer rearing program.

As Nebraska herds continue to expand, opportunities to custom raise heifers will arise. The survey shows that as the dairy enterprise expands, the number of producers who are not raising their own replacements increases. Many Nebraska producers should consider possible opportunities in custom-rearing heifers. If you are tired of milking, this may be an enterprise of interest.

The last category concerns veterinarian services. This section points out the benefit of having a routine herd health program. Monthly veterinarian visits will alert you to potential problems before they become major obstacles. Having someone else look at your herd can also help identify problem areas you may have overlooked.

Table I. Relationships between management practices and milk production by herd size.

	Herd Size							
	30-99 Cows		100-199 Cows		200-499 Cows		500 or More Cows	
	High	Low	High	Low	High	Low	High	Low
Pounds per cow+	19,600	15,750	20,450	16,714	21,200	16,500	22,390	18,668
Number of herds [^]	247	256	95	97	66	69	38	38
<i>Records</i>								
--DHIA	81.4	21.5*	79.0	21.7*	81.8	29.0*	73.7	47.4*
--On-farm computer	20.2	5.9*	32.6	14.4*	57.6	27.5*	92.1	55.3*
<i>Milk and Dairy Beef Quality</i>								
--Assurance Program (MDBQA)	16.6	7.4	*29.5	7.2*	22.7	11.6	29.0	21.0
Total mixed ration	47.8	31.3*	82.1	59.8*	90.9	72.5*	86.8	84.4
Test forage for ration balancing	91.9	55.1*	97.9	69.1*	95.6	66.7*	92.1	86.8
Pasture cows	46.6	69.9*	16.8	48.5*	15.2	42.0*	2.6	21.1*
<i>Raise feeds (>50% of feed fed)</i>								
--Forage	97.2	96.1	96.1	98.0	75.8	63.8	57.9	55.3
--Feed grains	68.4	59.4*	66.3	47.4*	47.0	33.3	5.32	3.7*
<i>50-100% of cows administered:</i>								
--Bovine somatotropin (BST)	9.4	1.6*	20.0	4.1*	37.9	4.3*	34.2	7.9*
--Systematic prostaglandins	11.0	3.9*	17.9	5.1*	28.8	1.4*	23.7	15.8*
<i>Use break-even milk level to</i>								
--determine culling	35.2	21.9*	46.3	32.0*	62.1	37.7*	81.6	57.9*
<i>Separation of calves/mothers</i>								
--Immediately, no nursing	54.2	45.3*	56.8	34.0*	43.9	31.9*	55.3	23.7*
--After nursing, but <12 hrs	22.3	18.0*	21.1	20.6*	40.9	15.9*	31.6	36.8*
--After nursing, within 12-24 hrs	16.6	16.8*	16.8	15.5*	15.2	27.5*	10.5	31.6*
--After nursing, but >24 hrs	6.9	19.9*	5.3	29.9*	0.02	4.7*	2.6	7.9*
<i>Colostrum feeding</i>								
--Nurse only	21.5	43.0*	24.2	57.7*	22.7	59.4*	15.8	42.1*
--Hand-fed; bucket or bottle	72.5	55.8*	67.4	39.2*	59.1	33.3*	57.9	36.8*
--Hand-fed; esophageal feeder	6.0	1.2*	8.4	3.1*	18.2	7.3*	26.3	21.1*
<i>Quantity of colostrum fed</i>								
--4 or more quarts	35.2	14.8*	40.0	11.3*	39.4	8.7*	42.1	18.4*
--2-4 quarts	32.0	25.4*	27.4	26.7*	27.3	18.9*	31.6	13.2*
--Less than 2 quarts	11.3	16.8*	8.4	8.3*	10.6	13.0*	10.5	26.3*
--Nurse only	21.5	43.0*	24.2	57.7*	22.7	59.4*	15.8	42.1*
<i>Dairy heifers contract raised</i>								
--Animal diagnosis & treatment	8.9	1.6*	5.3	4.11	5.2	5.8	21.1	41.1
<i>Services provided by a veterinarian</i>								
--Provide drugs or vaccines	95.6	91.0*	95.8	97.9	98.5	91.3	97.4	92.1
--Vaccination consultation	94.3	82.8*	92.6	90.7	92.4	82.6	92.1	86.8
--Reproductive consultation	89.5	69.5*	91.6	72.2*	92.4	84.1	97.4	81.6*
--Herd diagnostics	90.2	67.2*	89.5	75.3*	89.4	76.8	94.7	81.6
	58.7	45.7*	72.6	59.8	75.8	62.3	81.6	79.0

+ Values for high herds are minimum production per cow. Values for low herds are maximum production per cow.

* Difference between high and low percentile producers is statistically significant at the .05 level.

[^] Top and bottom quartiles differed in number of herds due to a number of herds falling at the cut point.

The information presented in this NebGuide discusses good management practices that can be implemented by dairy producers. Additional dairy information can be found at: <http://www.nebraskadairy.unl.edu>.

UNL Extension publications are available online at <http://extension.unl.edu/publications>.

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