



United States  
Department  
of Agriculture

Animal and  
Plant Health  
Inspection  
Service

Veterinary  
Services

# Part I: Reference of 1996 Dairy Management Practices

National Animal Health Monitoring System



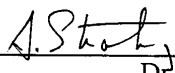
May 1996

## Acknowledgements

This report has been prepared from material received and analyzed by the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS).

The Dairy '96 study was a cooperative effort between State and Federal agricultural statisticians, animal health officials, university researchers, and extension personnel. We want to thank the National Agricultural Statistics Service (NASS) enumerators and State and Federal Veterinary Medical Officers (VMO's) who visited the farms and collected the data for their hard work and dedication to the National Animal Health Monitoring System (NAHMS).

The roles of the producer, Area Veterinarian in Charge (AVIC), NAHMS Coordinator, Veterinary Medical Officer (VMO), Animal Health Technician (AHT), and NASS enumerators were critical in providing quality data for Dairy '96 reports. All participants are to be commended for their efforts, particularly the producers whose voluntary efforts made the study possible.

  
\_\_\_\_\_  
Dr. Al Strating, Director  
Centers for Epidemiology & Animal Health

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# Introduction

The National Animal Health Monitoring System's (NAHMS) Dairy '96 study was designed to provide both participants and the industry with information on the nation's milk cows for education and research. This report is the first of several releases documenting Dairy '96 study results.

The first NAHMS national study of dairy health and management was the 1991-92 National Dairy Heifer Evaluation Project (NDHEP). NDHEP study results provided an overview of dairy herd management practices concentrating on the preweaned heifer.

Dairy '96 was the second NAHMS national study of the dairy industry. The 20 states participating in Dairy '96 (shown in the map at right) represented 83.1 percent of the U.S. milk cows on January 1, 1996.

NAHMS is sponsored by the USDA:APHIS:Veterinary Services (VS). The USDA's National Agricultural Statistics Service (NASS) collaborated with VS to select a statistically valid sample yielding 2,542 producers for Dairy '96. NASS enumerators collected data for *Part I: Reference of 1996 Dairy Management Practices* via a questionnaire administered on-farm from January 1 through 26, 1996.

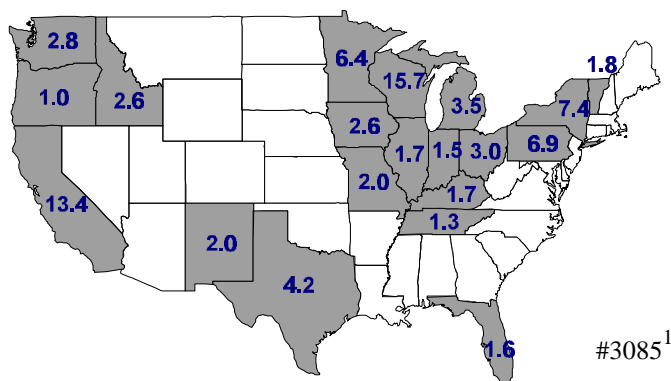
Subsequent reports will report data collected by State and Federal Veterinary Medical Officers (VMO's) and Animal Health Technicians (AHT's) from February 20 through July 10, 1996. Anticipated release dates for additional Dairy '96 results are Fall 1996.

Discussions of Dairy '96 results within Part I are accessible on the Internet through [gopher.aphis.usda.gov](http://gopher.aphis.usda.gov) (menu choices: APHIS Information; Animal Health Information; Animal Health Monitoring, Risk Assessments, and Emerging Issues) and will be on the World Wide Web (through the APHIS Home Page) in mid-1996. Topics available on release of this report include culling practices and biosecurity measures.

For questions about this report or additional Dairy '96 and NAHMS results, please contact:

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Percent of U.S. Milk Cow Inventory, January 1, 1996, for States Participating in the NAHMS Dairy '96 Study



Total = 83.1 percent of the U.S. milk cow inventory.  
States: California, Florida, Idaho, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, New Mexico, New York, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Vermont, Washington, and Wisconsin.

1 Identification numbers are assigned to each graph in this report for public reference.

## Terms Used in This Report

**Cow:** female dairy bovine that has calved at least once.

**Cow average:** the average value for all cows; the reported value for each operation multiplied by the number of cows on that operation is summed over all operations and divided by the number of cows on all operations. This way, the result is adjusted for the number of cows on each operation. For instance, on page 8 the average age at first calving is multiplied by the number of cows for each operation. This product is then summed over all operations and divided by the sum of cows over all operations. The result is the average age at first calving for all cows.

**Heifer:** female dairy bovine not yet calved.

**Holstein operations:** Operations where Holstein cows accounted for 50 percent or more of the January 1, 1996, cow inventory.

**Operation average:** a single value for each operation is summed over all operations reporting divided by the number of operations reporting. For instance, operation average age at first calving (shown on page 8) is calculated by summing reported average age over all operations divided by the number of operations.

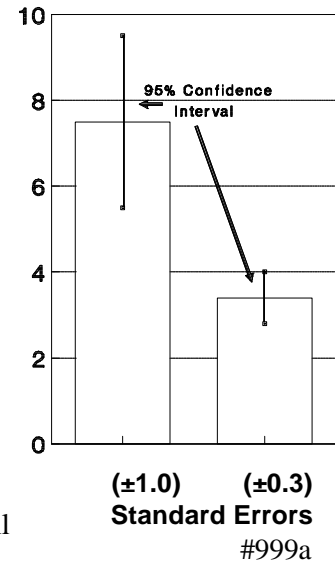
**Population estimates:** averages and proportions weighted to represent the population. Most of the estimates in this report are provided with a measure of variability called the *standard error* and denoted by ( $\pm$ ). Chances are 95 out of 100 that the interval created by the estimate plus or minus two standard errors will contain the true population value. In the example above, an estimate of 7.5 with a standard error of  $\pm 1.0$  results in a range of 5.5 to 9.5 (two times the standard error above and below the estimate.) The second estimate of 3.4 shows a standard error of  $\pm 0.3$  results with a range of 2.8 and 4.0.

**Producer-identified cause:** Causes of illnesses or deaths derived from observations of clinical signs reported by participating producers and not substantiated by a veterinarian or laboratory.

**Physical contact:** Possible nose-to-nose contact or sniffing/touching/licking each other through a fence.

**Sample profile:** information that describes characteristics of the operations from which Dairy '96 data were collected.

Examples of  
95% Confidence Intervals



# Section 1: Population Estimates

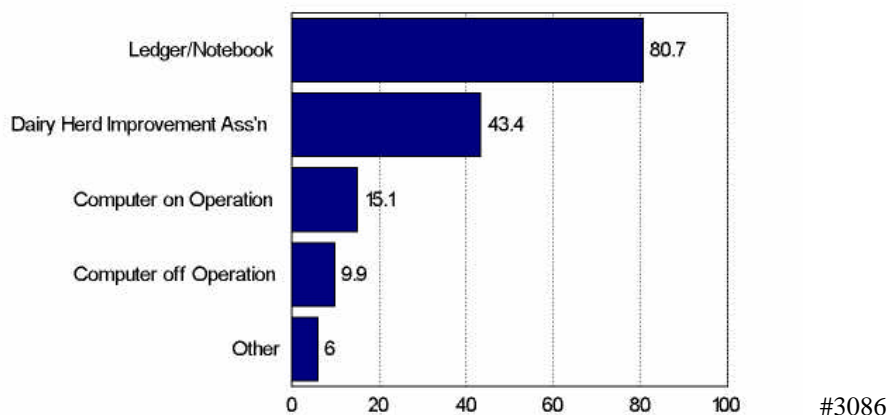
## A. Dairy Herd Information & Management Practices

### 1. Record-keeping systems

a. Percent of operations (and percent of dairy cows on those operations) by type of individual animal record-keeping systems used for the dairy operation:

<u>Record-keeping System</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Dairy Cows</u>	<u>Standard Error</u>
Hand written such as a ledger or notebook	80.7	(±1.0)	73.3	(±1.3)
Dairy Herd Improvement Association (DHIA)	43.4	(±1.2)	54.6	(±1.3)
Computer located on the operation	15.1	(±0.8)	36.9	(±1.1)
Computer located off the operation	9.9	(±0.8)	13.2	(±0.9)
Other system	6.0	(±0.7)	5.1	(±0.5)
Any	100.0	(±0.0)	100.0	(±0.0)

Percent of Operations by Type of Record-keeping Systems Used



b. Percent of operations using a computerized recording-keeping system specifically for individual animal health information:

<u>Percent Operations</u>	<u>Standard Error</u>
8.9	(±0.6)

### 2. Individual Animal Identification

a. Percent of operations (and dairy cows) by type(s) of identification used:

<u>Identification Type</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Dairy Cows</u>	<u>Standard Error</u>
Ear tags (all kinds)	81.2	(±1.1)	87.3	(±0.6)
Collars	22.3	(±1.0)	16.3	(±0.7)
Photograph or sketch	17.4	(±1.0)	10.3	(±0.6)
Branding (all methods)	4.9	(±0.5)	12.3	(±1.1)
Implanted electronic identification	0.3	(±0.1)	0.2	(±0.1)
Tattoo (other than tattoo for brucellosis)	6.5	(±0.6)	7.8	(±0.9)
Other	10.1	(±0.9)	6.4	(±0.6)
None	8.8	(±0.9)	2.5	(±0.3)

3. Breed of dairy cows

a. Percent of operations with at least one cow of the following breeds:

<u>Breed</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Holstein	95.7	(±0.6)
Jersey	17.4	(±1.1)
Ayrshire	3.7	(±0.5)
Brown Swiss	5.8	(±0.6)
Guernsey	5.7	(±0.7)
Other	5.7	(±0.6)

b. Percent of cow inventory by breed:

<u>Breed</u>	<u>Percent Cows</u>	<u>Standard Error</u>
Holstein	93.7	(±0.5)
Jersey	4.0	(±0.4)
Ayrshire	0.4	(±0.1)
Brown Swiss	0.5	(±0.1)
Guernsey	0.8	(±0.1)
Other	<u>0.6</u>	(±0.1)
Total	100.0	

c. Percent of operations by main breed<sup>1</sup>:

<u>Breed</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Holstein	93.0	(±0.8)
Jersey	4.1	(±0.6)
Ayrshire	0.3	(±0.1)
Brown Swiss	0.4	(±0.2)
Guernsey	1.7	(±0.4)
Other	<u>0.5</u>	(±0.2)
Total	100.0	

4. Cow registration

a. Percent of dairy cows registered with a breed association by herd size (number of dairy cows):

<u>Number of Dairy Cows</u>	<u>Operation Average Percent of Dairy Cows</u>	<u>Standard Error</u>	<u>Percent of Dairy Cows</u>	<u>Standard Error</u>
Less than 100	18.3	(±1.0)	20.5	(±1.0)
100-199	20.2	(±1.7)	20.1	(±1.7)
200 or more	11.5	(±1.1)	9.7	(±1.3)
All operations	18.1	(±0.8)	16.4	(±0.7)

<sup>1</sup> Each operation is categorized by the breed with the largest number of cows in the January 1, 1996, inventory.



## b. Percent of operations by percent of dairy cows registered:

<u>Percent of Dairy Cows Registered</u>	<u>Percent Operations</u>	<u>Standard Error</u>
0	65.5	(±1.2)
1-9	11.5	(±0.7)
10-50	6.4	(±0.6)
51-75	3.8	(±0.6)
76-99	5.2	(±0.5)
100	<u>7.6</u>	(±0.7)
Total	100.0	

## i. Percent of operations by main breed within registration level (percent of dairy cows registered):

<u>Breed</u>	<u>Percent Operations</u>					
	<u>Registration Level</u>					
	<u>Less than</u>	<u>Standard</u>	<u>10.0-</u>	<u>Standard</u>	<u>76.0%</u>	<u>Standard</u>
	<u>10.0%</u>	<u>Error</u>	<u>75.9%</u>	<u>Error</u>	<u>or more</u>	<u>Error</u>
Holstein	96.0	(±0.8)	89.3	(±2.6)	80.2	(±2.6)
Jersey	2.6	(±0.7)	4.7	(±1.4)	12.0	(±2.0)
Ayrshire	0.0	(±0.0)	0.4	(±0.4)	1.6	(±0.8)
Brown Swiss	0.4	(±0.3)	0.8	(±0.7)	0.6	(±0.4)
Guernsey	0.4	(±0.2)	4.7	(±2.2)	5.1	(±1.8)
Other	<u>0.6</u>	(±0.3)	<u>0.1</u>	(±0.1)	<u>0.5</u>	(±0.3)
Total	100.0		100.0		100.0	

## c. Percent of all operations by herd size within registration level:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>					
	<u>Registration Level</u>					
	<u>Less than</u>	<u>Standard</u>	<u>10.0-</u>	<u>Standard</u>	<u>76.0%</u>	<u>Standard</u>
	<u>10.0%</u>	<u>Error</u>	<u>75.9%</u>	<u>Error</u>	<u>or more</u>	<u>Error</u>
Less than 100	82.7	(±0.7)	79.3	(±2.0)	84.6	(±1.8)
100-199	11.1	(±0.6)	14.6	(±1.8)	12.6	(±1.7)
200 or more	<u>6.2</u>	(±0.3)	<u>6.1</u>	(±0.7)	<u>2.8</u>	(±0.5)
Total	100.0		100.0		100.0	

## d. Percent of all operations by registration level within herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>						<u>Total</u>
	<u>Registration Level</u>						
	<u>Less than</u>	<u>Stand.</u>	<u>10.0-</u>	<u>Stand.</u>	<u>76.0%</u>	<u>Stand.</u>	
	<u>10.0%</u>	<u>Error</u>	<u>75.9%</u>	<u>Error</u>	<u>or More</u>	<u>Error</u>	
Less than 100	72.4	(±1.3)	14.5	(±1.0)	13.1	(±0.9)	100.0
100-199	67.9	(±2.5)	18.6	(±2.2)	13.5	(±1.8)	100.0
200 or more	78.0	(±1.9)	15.8	(±1.7)	6.2	(±1.1)	100.0
All operations	72.2	(±1.1)	15.0	(±0.9)	12.8	(±0.8)	100.0

5. Number of bulls used

a. Percent of operations by number of bulls in the January 1, 1996, inventory used for breeding dairy cows or heifers:

<u>Number Bulls</u>	<u>Percent Operations</u>	<u>Standard Error</u>
0	45.4	(±1.3)
1	34.8	(±1.3)
2-4	16.9	(±0.8)
5 or more	<u>2.9</u>	(±0.2)
Total	100.0	

6. Rolling herd average milk production<sup>1</sup>

a. All herds

i. Operation average (and cow average) rolling herd milk production (pounds per cow) by herd size and Dairy Herd Improvement Association (DHIA) participation:

<u>Number of Dairy Cows</u>	<u>Pounds per Cow</u>			
	<u>Operation Average</u>	<u>Standard Error</u>	<u>Cow Average</u>	<u>Standard Error</u>
Less than 100	16,152	(±117)	16,809	(±92)
100-199	18,302	(±166)	18,350	(±159)
200 or more	19,215	(±151)	19,768	(±165)
All operations	16,587	(±100)	18,198	(±79)
DHIA or other computer records	18,470	(±111)	19,463	(±104)
No DHIA or other computer records	14,903	(±152)	16,083	(±120)

ii. Percent of operations by rolling herd average milk production:

<u>Average Pounds</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 14,000	21.4	(±1.2)
14,000 - 15,999	17.5	(±1.1)
16,000 - 19,999	42.3	(±1.3)
20,000 - 21,999	10.8	(±0.7)
22,000 or more	<u>8.0</u>	(±0.6)
Total	100.0	

iii. Percent of operations reporting rolling herd average milk production from the Dairy Herd Improvement Association (DHIA) or other computerized records:

<u>Percent Operations</u>	<u>Standard Error</u>
46.8	(±1.2)

<sup>1</sup> Rolling herd average information was based on DHIA or other computer records where available and otherwise on producers' best estimates.

b. Holstein herds<sup>1</sup>

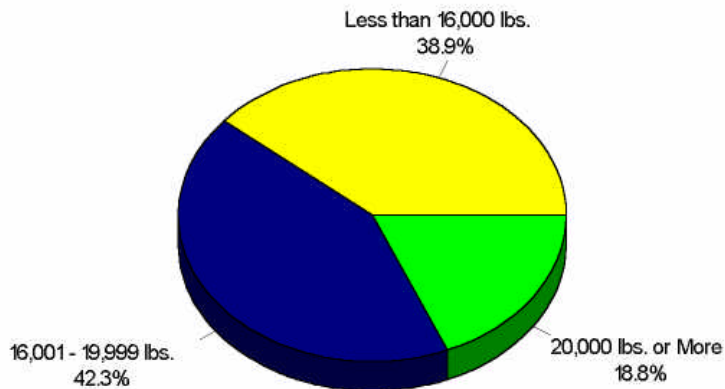
i. Operation average (and cow average) rolling herd milk production for Holstein operations by herd size and Dairy Herd Improvement Association (DHIA) participation:

<u>Number of Dairy Cows<sup>2</sup></u>	<u>Operation Average</u>	<u>Standard Error</u>	<u>Cow Average</u>	<u>Standard Error</u>
Less than 100	16,505	(±116)	17,093	(±92)
100-199	18,497	(±155)	18,528	(±152)
200 or more	19,375	(±151)	19,938	(±159)
All Holstein operations	16,925	(±99)	18,442	(±78)
DHIA or other computer records	18,694	(±111)	19,633	(±102)
No DHIA or other computer records	15,282	(±148)	16,352	(±116)

ii. Percent of Holstein operations by rolling herd average milk production:

<u>Average Pounds</u>	<u>Percent Holstein Operations</u>	<u>Standard Error</u>
Less than 14,000	17.9	(±1.2)
14,000 - 15,999	17.5	(±1.2)
16,000 - 19,999	44.5	(±1.3)
20,000 - 21,999	11.6	(±0.7)
22,000 or more	<u>8.5</u>	(±0.6)
Total	100.0	

Percent of All Operations by Rolling Herd Average



#3087

1 Operations where Holstein cows accounted for 50 percent or more of the January 1, 1996, cow inventory.

2 Number of dairy cow size groups are based on total dairy cows in the herd - all cows, not just Holstein cows.

7. Days dry

a. Operation average (and cow average) reported average days dry during 1995:

<u>Operation</u> <u>Average</u>	<u>Standard</u> <u>Error</u>	<u>Cow</u> <u>Average</u>	<u>Standard</u> <u>Error</u>
60.5	(±0.3)	61.7	(±0.4)

b. Percent of operations by reported average number of days dry:

<u>Days Dry</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 60	28.4	(±1.2)
60-69	53.2	(±1.3)
70 or more	<u>18.4</u>	(±1.1)
Total	100.0	

8. Calving interval

a. Operation average (and cow average) reported average calving interval (in months) for dairy cows during 1995:

<u>Operation</u> <u>Average</u>	<u>Standard</u> <u>Error</u>	<u>Cow</u> <u>Average</u>	<u>Standard</u> <u>Error</u>
12.9	(±0.0)	13.0	(±0.0)

b. Percent of operations by reported average calving interval (in months) for dairy cows:

<u>Months</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 13	65.4	(±1.2)
13-15	33.0	(±1.2)
More than 15	<u>1.6</u>	(±0.3)
Total	100.0	

9. Age at first calving

a. Operation average (and cow average) reported average age (months) at first calving:

<u>Operation</u> <u>Average</u>	<u>Standard</u> <u>Error</u>	<u>Cow</u> <u>Average</u>	<u>Standard</u> <u>Error</u>
25.8	(±0.1)	25.5	(±0.1)

b. Percent of operations (and percent of cows on these operations) by reported average age (in months) of cows at first calving:

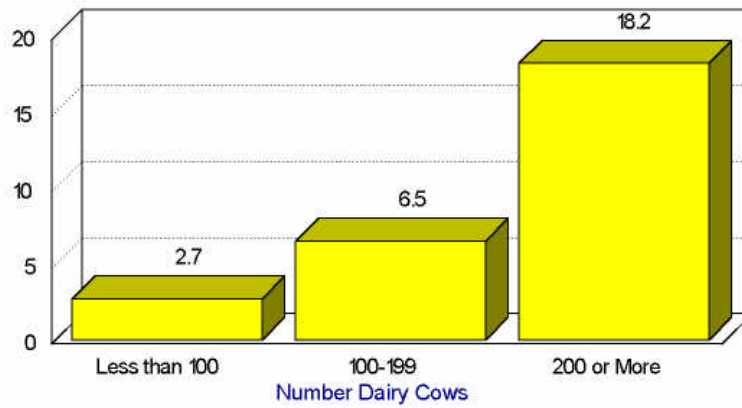
<u>Age (Months)</u>	<u>Percent</u> <u>Operations</u>	<u>Standard</u> <u>Error</u>	<u>Percent</u> <u>Cows</u>	<u>Standard</u> <u>Error</u>
Less than 24.0	9.3	(±0.9)	7.9	(±0.6)
24.0-24.9	30.8	(±1.3)	34.3	(±1.3)
25.0-25.9	12.6	(±0.8)	16.5	(±1.2)
26.0-26.9	17.3	(±1.0)	17.1	(±0.9)
27.0-27.9	7.7	(±0.7)	7.4	(±0.6)
28.0 - 28.9	6.8	(±0.6)	5.7	(±0.5)
29.0 - 29.9	1.3	(±0.3)	1.3	(±0.2)
30 or more	<u>14.2</u>	(±1.0)	<u>9.8</u>	(±0.7)
Total	100.0		100.0	

10. Contract rearing

a. Percent of operations on which any dairy heifers were raised by someone else on a contract basis in 1995 by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 100	2.7	(±0.4)
100-199	6.5	(±1.4)
200 or more	18.2	(±1.9)
All operations	4.1	(±0.4)

Percent of Operations on Which Any Dairy Heifers Were Raised by Someone Else on a Contract Basis in 1995 by Herd Size

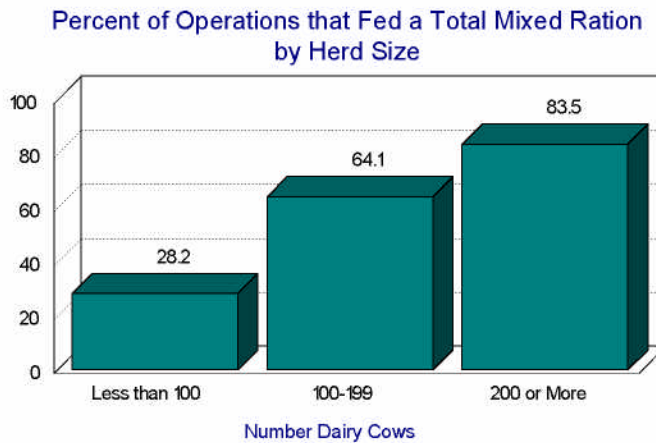


#3088

11. Feed rations

a. Percent of operations that fed a total mixed ration by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 100	28.2	(±1.3)
100-199	64.1	(±2.6)
200 or more	83.5	(±1.7)
All operations	35.6	(±1.1)



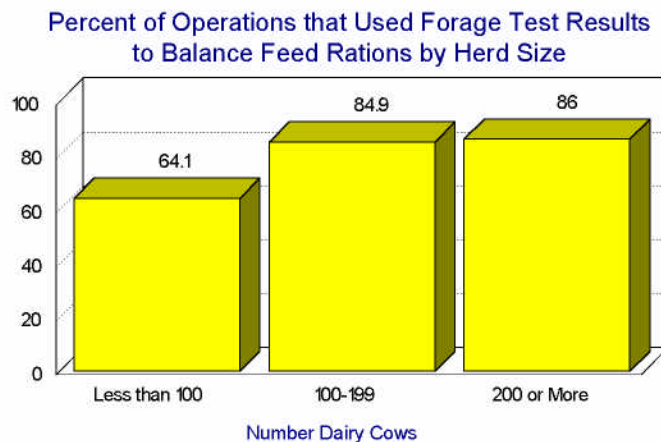
#3089

i. Percent of operations that fed a total mixed ration by rolling herd average:

<u>Average Pounds</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 16,000	28.9	(±2.0)
16,000 - 19,999	33.2	(±1.7)
20,000 or more	55.4	(±2.5)
All operations	35.6	(±1.1)

b. Percent of operations that used forage test results to balance feed rations by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 100	64.1	(±1.4)
100-199	84.9	(±1.7)
200 or more	86.0	(±1.5)
All operations	67.8	(±1.2)



#3090

12. Grains and roughages

a. Percent of operations that fed feed grains and roughages raised on the operation to dairy animals during 1995 by region:

<u>Region</u>	<u>Percent Operations</u>			
	<u>Feed Grains</u>	<u>Standard Error</u>	<u>Roughages</u>	<u>Standard Error</u>
West	22.3	(±3.8)	73.7	(±4.2)
Midwest	88.7	(±1.3)	98.2	(±0.7)
Northeast	54.9	(±1.9)	98.0	(±0.7)
Southeast	47.0	(±5.3)	97.3	(±0.8)
All operations	72.7	(±1.0)	96.0	(±0.6)

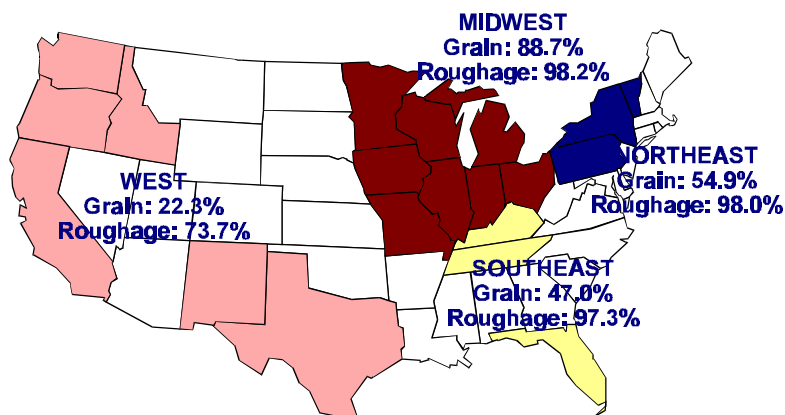
i. Of operations that fed *feed grains*, operation average percent of feeds fed that were raised on the operation by region:

<u>Region</u>	<u>Operation Average Percent</u>	
	<u>Feed Grains</u>	<u>Standard Error</u>
West	75.1	(±5.6)
Midwest	86.5	(±1.0)
Northeast	68.7	(±1.6)
Southeast	61.2	(±4.4)
All operations	82.1	(±0.8)

ii. Of operations that fed *roughages*, operation average percent of feeds fed that were raised on the operation by region:

<u>Region</u>	<u>Operation Average Percent</u>	
	<u>Roughages</u>	<u>Standard Error</u>
West	69.7	(±2.4)
Midwest	94.2	(±0.6)
Northeast	96.3	(±0.5)
Southeast	93.2	(±2.2)
All operations	93.0	(±0.4)

**Percent of Operations That Fed Feed Grains & Roughages Raised on the Operation to Dairy Animals by Region**



#3091

13. Pasturing lactating cows

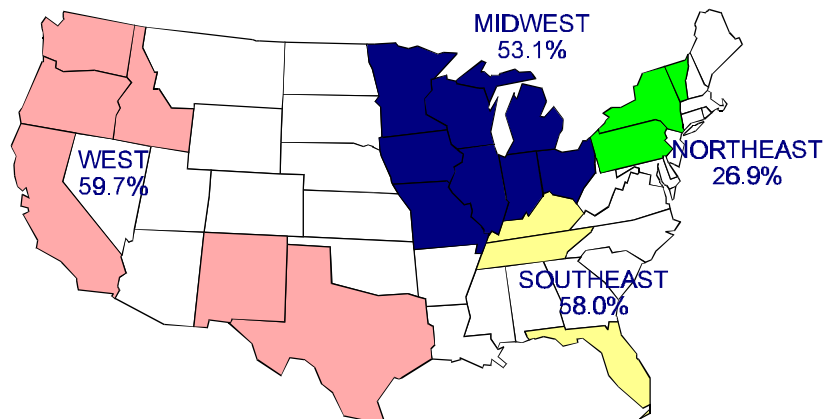
a. Percent of operations that pastured lactating dairy cows for 3 or more months during 1995 by region:

<u>Region</u>	<u>Percent Operations</u>	<u>Standard Error</u>
West	43.4	(±4.4)
Midwest	54.0	(±1.6)
Northeast	70.1	(±1.9)
Southeast	74.5	(±4.7)
All operations	58.0	(±1.2)

b. For operations that pastured lactating dairy cows for 3 or more months during 1995, percent of operations where pasture provided at least 90 percent of roughages for the cows while on pasture by region:

<u>Region</u>	<u>Percent Operations</u>	<u>Standard Error</u>
West	59.7	(±6.7)
Midwest	53.1	(±2.5)
Northeast	26.9	(±2.6)
Southeast	58.0	(±5.7)
All operations	46.1	(±1.7)

Percent of Operations\* that Provided Pastured Cows with at Least 90 Percent of Roughage from Pasture by Region



\* Operations that pastured lactating cows.

#3092

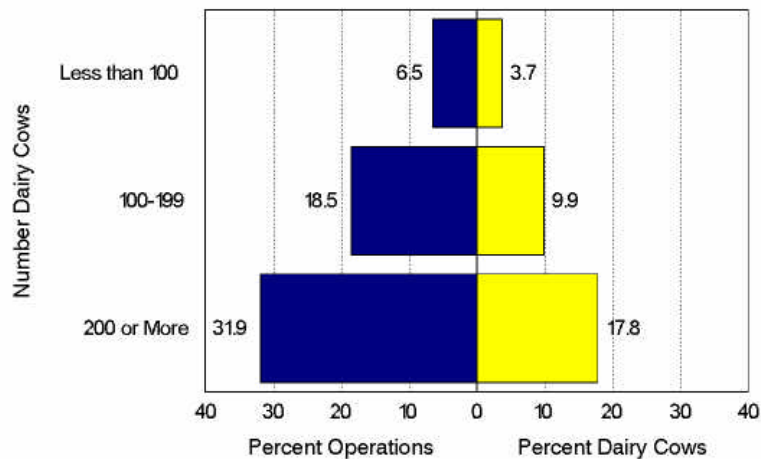


14. Bovine somatotropin (bST)

a. Percent of operations (and percent of cows) that used bovine somatotropin (bST) in cows during the current lactation (at the time of the Dairy '96 interview) by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Cows</u>	<u>Standard Error</u>
Less than 100	6.5	(±0.6)	3.7	(±0.4)
100-199	18.5	(±2.0)	9.9	(±1.3)
200 or more	31.9	(±2.3)	17.8	(±1.7)
All operations	9.4	(±0.6)	10.1	(±0.7)

**Percent of Operations (& Percent of Cows) that Used Bovine Somatotropin (bST) by Herd Size**



#3094

b. Percent of operations (and percent of cows) that used bovine somatotropin (bST) in cows during the current lactation (at the time of the Dairy '96 interview) by region:

<u>Region</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Cows</u>	<u>Standard Error</u>
West	15.2	(±2.6)	10.9	(±1.6)
Midwest	7.6	(±0.7)	8.3	(±1.0)
Northeast	12.0	(±1.2)	11.8	(±1.1)
Southeast	8.3	(±1.8)	13.6	(±2.2)
All operations	9.4	(±0.6)	10.1	(±0.7)

c. For operations giving bovine somatotropin (bST), operation average percent of dairy cows that received bST during the current lactation:

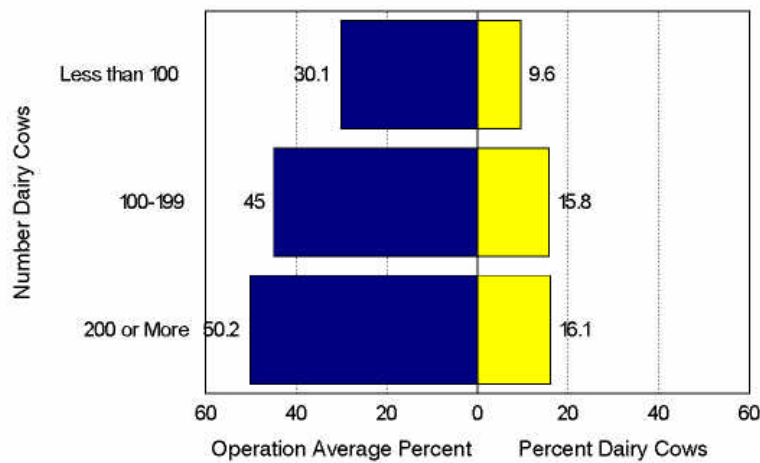
<u>Operation Average Percent</u>	<u>Standard Error</u>
49.2	(±2.4)

15. Systematic prostaglandin

a. Percent of operations (and percent of cows) that bred cows with Systematic Prostaglandin (estrus synchronization) during the current lactation (at the time of the Dairy '96 interview) by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Cows</u>	<u>Standard Error</u>
Less than 100	30.1	(±1.2)	9.6	(±0.5)
100-199	45.0	(±2.7)	15.8	(±1.6)
200 or more	50.2	(±2.4)	16.1	(±1.4)
All operations	33.0	(±1.1)	13.1	(±0.7)

**Percent of Operations (& Percent of Cows) that Bred Cows with Systematic Prostaglandin by Herd Size**



#3094

b. Percent of operations (and percent of cows) that bred cows with Systematic Prostaglandin (estrus synchronization) during the current lactation (at the time of the Dairy '96 interview) by region:

<u>Region</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Cows</u>	<u>Standard Error</u>
West	29.5	(±2.2)	11.8	(±1.5)
Midwest	32.0	(±1.5)	13.2	(±0.9)
Northeast	41.2	(±2.1)	15.2	(±1.1)
Southeast	11.4	(±1.8)	12.6	(±1.6)
All operations	33.0	(±1.1)	13.1	(±0.7)

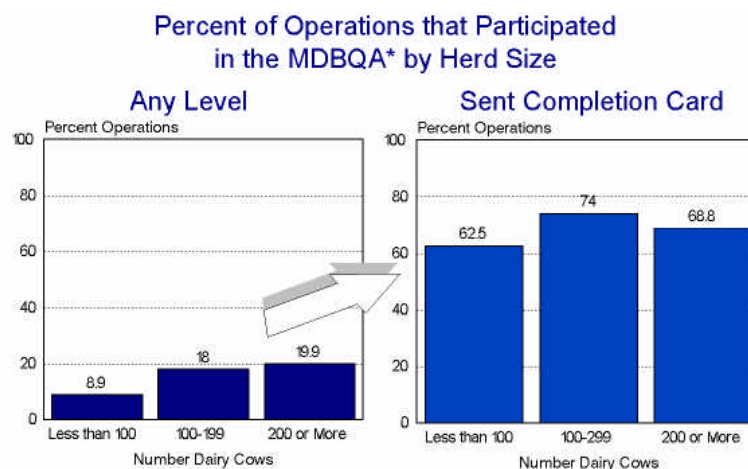
c. For operations that bred cows with Systematic Prostaglandin, operation average percent of dairy cows synchronized with Systematic Prostaglandin during the current lactation:

<u>Operation Average Percent</u>	<u>Standard Error</u>
28.4	(±0.9)

16. Milk and Dairy Beef Quality Assurance Program (MDBQA)

a. Percent of operations that participated in the MDBQA by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 100	8.9	(±0.7)
100-199	18.0	(±1.9)
200 or more	19.9	(±1.9)
All operations	10.6	(±0.7)



\*Milk and Dairy Beef Quality Assurance Program.

#3095

b. Percent of operations that had participated in the MDBQA by region:

<u>Region</u>	<u>Percent Operations</u>	<u>Standard Error</u>
West	9.0	(±1.2)
Midwest	12.1	(±0.9)
Northeast	8.2	(±1.2)
Southeast	6.4	(±1.7)
All operations	10.6	(±0.7)

c. For operations that participated in the MDBQA, percent of operations by level of involvement and herd size:

<u>Number of Dairy Cows</u>	<u>Veterinarian Involved</u>		<u>Sent Completion Card</u>	
	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 100	86.1	(±2.7)	62.5	(±4.5)
100-199	88.5	(±3.3)	74.0	(±5.3)
200 or more	89.2	(±2.8)	68.8	(±4.8)
All operations	86.9	(±2.0)	65.4	(±3.4)

d. For operations that had participated in the MDBQA, percent of operations by level of involvement and region:

<u>Region</u>	<u>Veterinarian Involved</u>		<u>Sent Completion Card</u>	
	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Operations</u>	<u>Standard Error</u>
West	80.1	(±4.9)	61.6	(±6.5)
Midwest	91.9	(±2.2)	69.8	(±4.1)
Northeast	71.8	(±6.4)	50.9	(±8.1)
Southeast	80.3	(±9.9)	56.8	(±13.9)
All operations	86.9	(±2.0)	65.4	(±3.4)

**B. Dairy Heifers**

1. Colostrum management

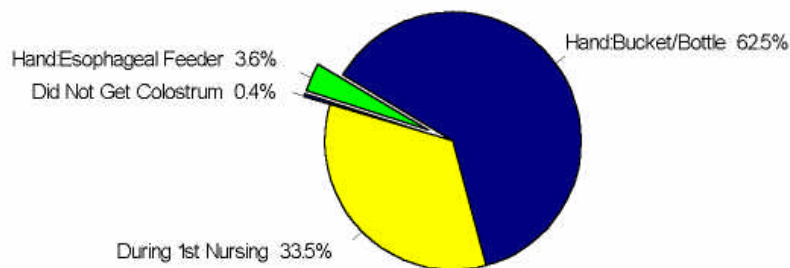
a. Percent of operations (and percent heifer calves born on these operations) by time following birth when newborn calves were normally separated from the mother:

<u>Age (Hours)</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Calves</u>	<u>Standard Error</u>
Immediately (no nursing)	47.9	(±1.3)	45.0	(±1.4)
After nursing, but less than 12 hours	20.8	(±1.0)	27.4	(±1.4)
12-24 hours	17.4	(±1.1)	18.7	(±1.2)
More than 24 hours	<u>13.9</u>	(±1.0)	<u>8.9</u>	(±0.6)
Total	100.0		100.0	

b. Percent of operations (and percent of heifer calves born on these operations) by method normally used for first feeding of colostrum to newborn dairy heifers:

<u>Method of Delivery</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Calves</u>	<u>Standard Error</u>
During first nursing	33.5	(±1.2)	29.4	(±1.1)
Hand feeding from bucket or bottle	62.5	(±1.2)	62.2	(±1.3)
Hand feeding using esophageal feeder	3.6	(±0.4)	8.3	(±1.0)
Did not get colostrum	<u>0.4</u>	(±0.2)	<u>0.1</u>	(±0.1)
Total	100.0		100.0	

**Percent of Operations by Method of First Feeding of Colostrum During First 24 Hours**



#3096

c. For operations that hand fed colostrum, percent of operations (and percent of heifer calves born on these operations) by amount of colostrum normally fed by hand during the first 24 hours:

<u>Source</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Calves</u>	<u>Standard Error</u>
Two quarts or less	21.4	(±1.3)	21.1	(±1.5)
More than two, but less than four quarts	46.6	(±1.6)	43.0	(±1.8)
Four quarts or more	<u>32.0</u>	(±1.5)	<u>35.9</u>	(±1.6)
Total	100.0		100.0	

2. Weaning age

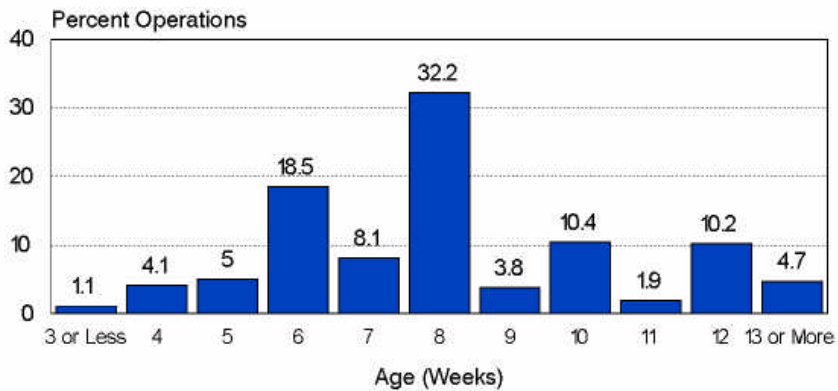
a. Average age at weaning (in weeks) of dairy heifer calves by herd size:

<u>Number of Dairy Cows</u>	<u>Operation</u>		<u>Calf</u>	
	<u>Average</u>	<u>Standard Error</u>	<u>Average</u>	<u>Standard Error</u>
Less than 100	8.4	(±0.1)	8.2	(±0.1)
100-199	8.0	(±0.1)	8.1	(±0.1)
200 or more	9.2	(±0.1)	9.5	(±0.2)
All operations	8.4	(±0.1)	8.7	(±0.1)

b. Percent of operations by average weaning age of dairy heifer calves:

<u>Age</u>	<u>Percent Operations</u>	<u>Standard Error</u>
3 weeks or less	1.1	(±0.3)
4 weeks	4.1	(±0.6)
5 weeks	5.0	(±0.6)
6 weeks	18.5	(±1.0)
7 weeks	8.1	(±0.7)
8 weeks	32.2	(±1.2)
9 weeks	3.8	(±0.5)
10 weeks	10.4	(±0.9)
11 weeks	1.9	(±0.5)
12 weeks	10.2	(±0.8)
13 weeks or more	4.7	(±0.5)
Total	100.0	

Percent of Operations by Average Weaning Age of Dairy Heifer Calves



#3097

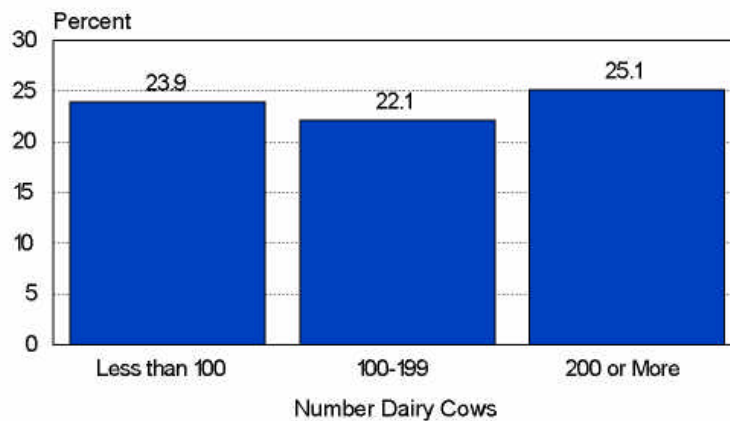
**C. Culled Cows**

1. Cull type and destination

a. Number of dairy cows that were culled from the herd in 1995 as a percent of January 1, 1996, dairy cow inventory by herd size and registration level:

Number of Dairy Cows	Less Than 10% Registered		10% or More Registered		All Operations	Standard Error
	Registered	Standard Error	Registered	Standard Error		
Less than 100	22.9	(±0.6)	26.1	(±1.8)	23.9	(±0.7)
100-199	21.2	(±0.5)	24.0	(±1.1)	22.1	(±0.5)
200 or more	25.0	(±0.6)	25.8	(±1.2)	25.1	(±0.6)
All operations	23.5	(±0.4)	25.6	(±1.0)	24.0	(±0.4)

**Percent of January 1, 1996, Dairy Cow Inventory Culled in 1995 by Herd Size**



#3098

b. For operations that culled dairy cows during 1995, percent of culled dairy cows (and operation average percent) by destination:

Destination	Percent Culled Dairy Cows		Operation Average Percent Culls	
	Percent Culled Dairy Cows	Standard Error	Operation Average Percent Culls	Standard Error
Sent to another operation	4.5	(±1.0)	2.7	(±0.3)
Sold for slaughter:				
Sent to a market, auction, or stockyards	74.0	(±1.4)	77.8	(±0.9)
Sold directly to a packer or slaughter plant	21.0	(±1.2)	18.2	(±0.9)
Sent elsewhere	0.5	(±0.1)	1.3	(±0.3)
Total	100.0		100.0	

c. Percent operations culling dairy cows for slaughter

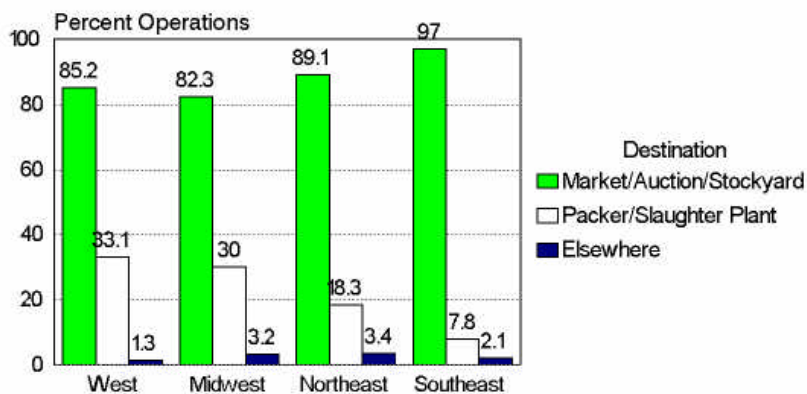
i. For operations that culled dairy cows for slaughter, percent of operations using the following marketing methods by herd size:

Percent of Dairy Cows	Sent to a Market		Sold Directly to		Sent Elsewhere	Standard Error
	Auction, or Stockyards	Standard Error	a Packer or Slaughter Plant	Standard Error		
Less than 100	85.0	(±1.1)	23.9	(±1.3)	3.2	(±0.5)
100-199	83.5	(±2.2)	34.9	(±2.6)	2.7	(±1.1)
200 or more	85.3	(±2.0)	43.6	(±2.5)	1.2	(±0.4)
All operations	84.9	(±0.9)	26.4	(±1.1)	3.0	(±0.5)

ii. For operations that culled dairy cows for slaughter, percent of operations using the following marketing methods by region:

Marketing Method	Sent to a Market		Sold Directly to		Sent Elsewhere	Standard Error
	Auction, or Stockyards	Standard Error	a Packer or Slaughter Plant	Standard Error		
West	85.2	(±2.9)	33.1	(±3.1)	1.3	(±0.4)
Midwest	82.3	(±1.3)	30.0	(±1.6)	3.2	(±0.6)
Northeast	89.1	(±1.3)	18.3	(±1.7)	3.4	(±0.9)
Southeast	97.0	(±1.5)	7.8	(±1.7)	2.1	(±1.5)
All operations	84.9	(±0.9)	26.4	(±1.1)	3.0	(±0.5)

Percent of Operations\* that Culled Dairy Cows by Marketing Method & Region



\*For operations that culled dairy cows for slaughter.

#3099

d. Percent dairy cows culled for slaughter

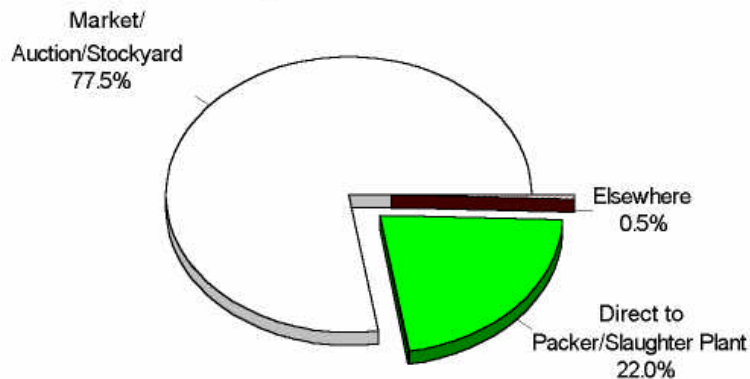
i. For operations that culled dairy cows for slaughter, percent of dairy cows culled for slaughter by marketing method:

Percent of Dairy Cows	Percent Dairy Cows					
	Sent to a Market		Sold Directly to		Sent Elsewhere	Standard Error
	Auction, or Stockyards	Standard Error	a Packer or Slaughter Plant	Standard Error		
Less than 100	79.3	(±1.4)	19.7	(±1.4)	1.0	(±0.2)
100-199	74.9	(±2.3)	24.5	(±2.3)	0.6	(±0.3)
200 or more	76.5	(±2.3)	23.4	(±2.3)	0.1	(±0.0)
All operations	77.5	(±1.2)	22.0	(±1.2)	0.5	(±0.1)

ii. For operations that culled dairy cows for slaughter, percent of dairy cows culled for slaughter by marketing method and region:

Marketing Method	Percent Dairy Cows					
	Sent to a Market		Sold Directly to		Sent Elsewhere	Standard Error
	Auction, or Stockyards	Standard Error	a Packer or Slaughter Plant	Standard Error		
West	78.9	(±2.5)	20.9	(±2.5)	0.2	(±0.1)
Midwest	73.2	(±1.5)	26.2	(±1.5)	0.6	(±0.2)
Northeast	84.7	(±1.5)	14.1	(±1.4)	1.2	(±0.4)
Southeast	78.3	(±8.3)	21.5	(±8.3)	0.2	(±0.1)
All operations	77.5	(±1.2)	22.0	(±1.2)	0.5	(±0.1)

Percent of Culled Dairy Cows Sold for Slaughter by Destination\*



\*For operations that culled dairy cows during 1995.

#3100



2. Reason for culling dairy cows for slaughter

a. For operations that culled dairy cows for slaughter, percent of dairy cows culled for slaughter by reason for culling:

<u>Reason</u>	<u>Percent Dairy Cows Culled for Slaughter</u>	<u>Standard Error</u>
Udder or mastitis problem	26.5	(±0.5)
Lameness or injury	15.0	(±0.6)
Disease	4.3	(±0.6)
Aggressiveness or belligerence (kickers)	1.0	(±0.1)
Poor production not related to above problems	22.4	(±0.8)
Reproductive problems	26.7	(±0.8)
Other	<u>4.1</u>	(±0.4)
Total	100.0	

3. Milk production break-even level used to determine when to cull cows

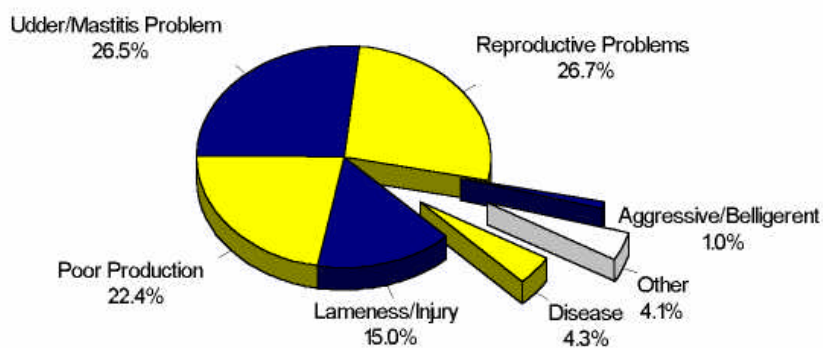
a. Percent of operations that used a milk production break-even level (lbs./cow/day) to determine when to cull cows:

<u>Percent Operations</u>	<u>Standard Error</u>
28.4	(±1.1)

b. For operations that used a milk production break-even level, operation average milk production break-even level used to determine when to cull non-pregnant dairy cows by herd size:

<u>Number of Dairy Cows</u>	<u>Operation Average Pounds per Cow per Day</u>	<u>Standard Error</u>
Less than 100	32.5	(±0.6)
100-199	35.5	(±0.6)
200 or more	36.5	(±0.5)
All operations	33.4	(±0.4)

**Percent of Dairy Cows Culled for Slaughter by Reason for Culling**



#3101

### D. Health Management

1. Source of health care information

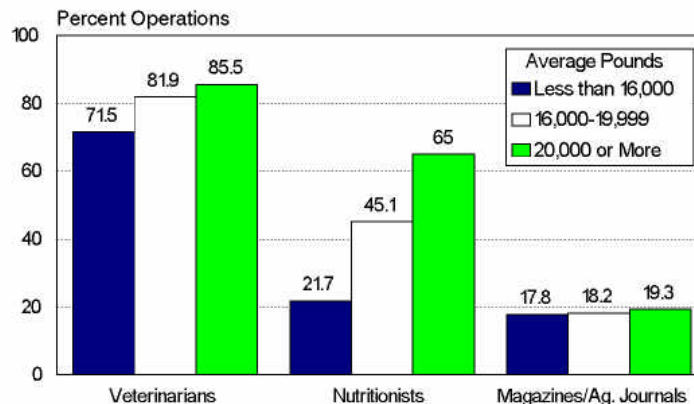
a. Percent of operations by level of importance of source of information for making health care decisions for dairy herd:

Source	Percent Operations						Total
	Not Important	Standard Error	Somewhat Important	Standard Error	Very Important	Standard Error	
Veterinarians	2.3	(±0.4)	19.3	(±1.1)	78.4	(±1.1)	100.0
Nutritionists	27.1	(±1.3)	33.7	(±1.3)	39.2	(±1.2)	100.0
Extension Service/universities/ Vo-Ag instructors	54.9	(±1.3)	39.4	(±1.2)	5.7	(±0.7)	100.0
Producer associations	63.6	(±1.2)	28.6	(±1.1)	7.8	(±0.7)	100.0
Other producers	42.7	(±1.3)	46.1	(±1.3)	11.2	(±0.9)	100.0
Medical supply salespersons	64.8	(±1.2)	28.2	(±1.1)	7.0	(±0.7)	100.0
Consultants	75.7	(±1.1)	16.1	(±0.9)	8.2	(±0.7)	100.0
Dairy magazines or agricultural journals	20.5	(±1.1)	61.2	(±1.3)	18.3	(±1.1)	100.0
Radio, television, or newspapers	65.9	(±1.2)	29.3	(±1.2)	4.8	(±0.6)	100.0
Other	84.0	(±0.9)	3.5	(±0.5)	12.5	(±0.8)	100.0

b. Percent of operations where the following sources of information for making health care decisions were very important by rolling herd average:

Source	Percent Operations					
	Rolling Herd Average Pounds					
	Less Than 16,000	Standard Error	16,000-19,999	Standard Error	20,000 or More	Standard Error
Veterinarians	71.5	(±2.3)	81.9	(±1.4)	85.5	(±1.8)
Nutritionists	21.7	(±1.9)	45.1	(±1.9)	65.0	(±2.4)
Extension Service/universities/ Vo-Ag instructors	6.3	(±1.2)	4.8	(±0.9)	7.1	(±1.3)
Producer associations	7.3	(±1.1)	8.0	(±1.0)	7.4	(±1.2)
Other producers	12.9	(±1.9)	9.9	(±1.3)	10.3	(±1.5)
Medical supply salespersons	8.8	(±1.3)	5.9	(±0.8)	5.3	(±1.1)
Consultants	5.7	(±1.2)	7.7	(±1.0)	14.0	(±1.8)
Dairy magazines or agricultural journals	17.8	(±2.0)	18.2	(±1.6)	19.3	(±2.0)
Radio, television, or newspapers	6.1	(±1.2)	3.8	(±0.7)	4.2	(±1.1)
Other	12.6	(±1.5)	12.5	(±1.2)	11.8	(±1.5)

Percent of Operations that Rated Top Information Sources as Very Important for Health Care Decisions by Rolling Herd Average



#3102

2. Veterinarian usage

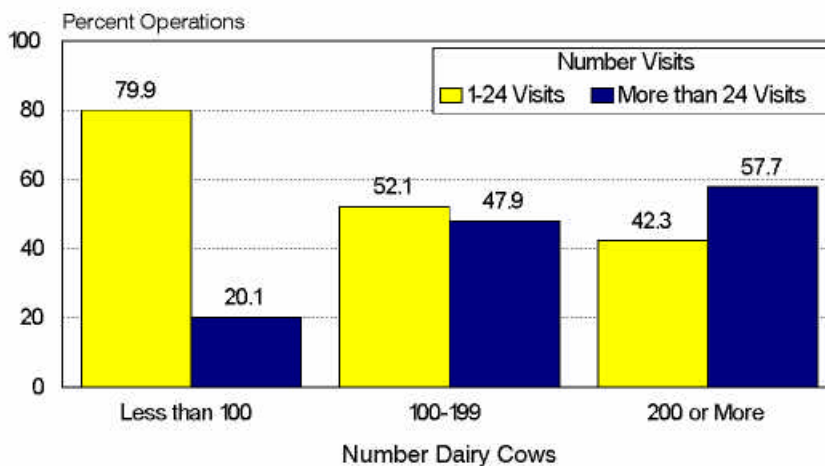
a. Percent of operations that had a veterinarian diagnose or treat dairy animals during 1995 by type of veterinarian usage and herd size:

Status	Percent Operations							
	Less Than 100		Standard Error		Number of Dairy Cows		All Operations	
Private veterinarian on farm	96.7	(±0.7)	97.3	(±0.7)	95.8	(±0.8)	96.7	(±0.6)
Private veterinarian at clinic	10.2	(±0.9)	19.9	(±1.9)	22.4	(±1.8)	12.0	(±0.8)
Veterinarian on payroll	0.5	(±0.2)	1.8	(±0.5)	4.7	(±0.9)	0.9	(±0.1)
Any veterinarian usage	97.7	(±0.7)	99.5	(±0.3)	99.5	(±0.2)	98.1	(±0.5)

b. For those operations using a private veterinarian on the dairy operation, percent of operations by number of visits made by a private veterinarian (not on the payroll) to the dairy operation during 1995 by herd size:

Number Visits	Percent Operations							
	Less Than 100		Standard Error		Number of Dairy Cows		All Operations	
1-6 visits	27.1	(±1.4)	13.7	(±1.7)	9.9	(±1.3)	24.5	(±1.2)
7-12 visits	22.1	(±1.3)	14.2	(±1.6)	11.9	(±1.5)	20.6	(±1.1)
13-24 visits	30.7	(±1.4)	24.2	(±2.2)	20.5	(±1.9)	29.4	(±1.2)
More than 24 visits	20.1	(±1.1)	47.9	(±2.7)	57.7	(±2.3)	25.5	(±1.0)
Total	100.0		100.0		100.0		100.0	

Percent of Operations by Number of Private Veterinary Visits to the Dairy Operation in 1995 by Herd Size



#3103

c. For operations taking animals to a private veterinarian’s clinic, percent of operations by number of times dairy animals were taken to a private veterinarian (not on the payroll) for diagnosis or treatment during 1995:

<u>Number Visits</u>	<u>Percent Operations</u>	<u>Standard Error</u>
1-3 visits	60.2	(±3.4)
4-6 visits	20.6	(±2.8)
More than 6 visits	<u>19.2</u>	(±2.6)
Total	100.0	

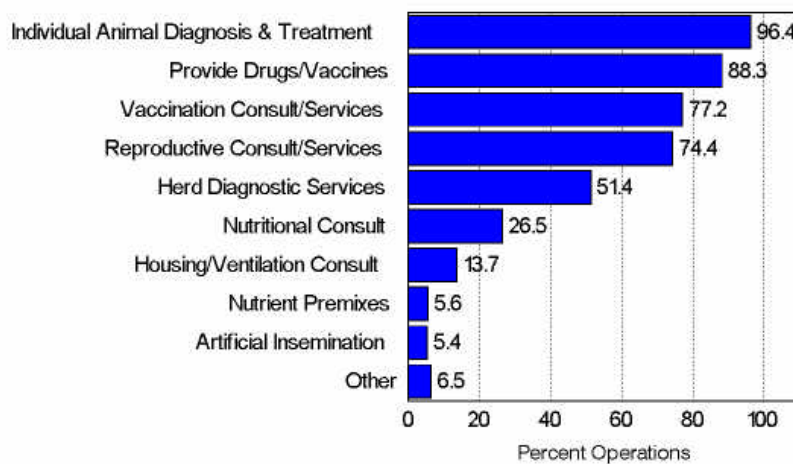
d. For operations that had a veterinarian on the payroll during 1995, average number of days the veterinarian was on the operation:

<u>Average Days</u>	<u>Standard Error</u>
47.8	(±10.8)

e. For operations that used a veterinarian for services to the operation during 1995, percent of operations that used a veterinarian for the following purposes:

<u>Purpose</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Individual animal diagnosis and treatment	96.4	(±0.5)
Herd diagnostic services	51.4	(±1.3)
Reproductive consultation/services	74.4	(±1.3)
Nutritional consultation	26.5	(±1.1)
Vaccination consultation/services	77.2	(±1.2)
Housing/ventilation consultation	13.7	(±0.8)
Providing drugs/vaccines	88.3	(±1.0)
Providing nutrient premixes	5.6	(±0.5)
Artificial insemination	5.4	(±0.7)
Other	6.5	(±0.6)

**Percent of Operations\* by Purpose of Veterinary Services Used**



\*Operations that used a veterinarian for services to the operation.

#3104

## 3. Vaccinations

## a. Dairy heifers

## i. Percent of operations normally vaccinating dairy heifers for the following diseases by herd size:

Disease	Percent Operations							
	Less Than 100		Standard Error		Standard Error		Standard Error	
Bovine Viral Diarrhea (BVD) Infectious Bovine	66.7	(±1.5)	84.1	(±1.8)	82.7	(±1.7)	69.7	(±1.3)
Rhinotracheitis (IBR)	62.5	(±1.5)	82.0	(±1.9)	83.5	(±1.6)	66.1	(±1.3)
Parainfluenza Type 3 (PI3)	57.0	(±1.6)	74.5	(±2.2)	73.9	(±2.1)	60.1	(±1.3)
Bovine Respiratory Syncytial Virus (BRSV)	55.5	(±1.6)	72.5	(±2.3)	74.6	(±2.0)	58.7	(±1.3)
<u>Hemophilus somnus</u>	34.5	(±1.5)	50.9	(±2.7)	47.9	(±2.4)	37.3	(±1.3)
Leptospirosis	64.4	(±1.5)	77.7	(±2.1)	81.9	(±1.7)	67.0	(±1.3)
Salmonella	17.2	(±1.1)	22.9	(±2.3)	35.0	(±2.4)	18.9	(±1.0)
<u>E. coli</u> mastitis	15.9	(±1.1)	25.6	(±2.4)	35.0	(±2.4)	18.1	(±0.9)
Clostridia	29.1	(±1.3)	43.3	(±2.5)	54.6	(±2.4)	32.3	(±1.1)
Brucellosis	61.1	(±1.5)	73.1	(±2.1)	82.1	(±1.7)	63.8	(±1.3)
<u>Mycobacterium paratuberculosis</u> (Johne's disease)	4.7	(±0.6)	7.9	(±1.6)	10.0	(±1.5)	5.4	(±0.6)
Other	6.9	(±0.7)	8.8	(±1.6)	8.9	(±1.6)	7.3	(±0.6)
None	15.2	(±1.2)	6.4	(±1.1)	5.1	(±0.9)	13.6	(±1.0)

## ii. Percent of operations normally vaccinating dairy heifers for the following diseases by region:

Region	Percent Operations							
	West	Standard Error	Midwest	Standard Error	Northeast	Standard Error	Southeast	Standard Error
Bovine Viral Diarrhea (BVD) Infectious Bovine	68.0	(±3.8)	70.3	(±1.7)	69.0	(±2.2)	68.3	(±5.5)
Rhinotracheitis (IBR)	64.5	(±3.9)	66.1	(±1.8)	66.9	(±2.2)	64.7	(±5.5)
Parainfluenza Type 3 (PI3)	57.0	(±3.9)	59.6	(±1.8)	62.7	(±2.3)	58.2	(±5.6)
Bovine Respiratory Syncytial Virus (BRSV)	54.4	(±3.8)	58.0	(±1.8)	63.0	(±2.3)	54.5	(±5.7)
<u>Hemophilus somnus</u>	40.5	(±3.8)	35.7	(±1.7)	42.0	(±2.3)	29.0	(±5.0)
Leptospirosis	64.5	(±3.7)	68.3	(±1.7)	64.2	(±2.2)	69.8	(±5.5)
Salmonella	28.4	(±3.4)	16.9	(±1.3)	20.1	(±1.9)	21.6	(±3.8)
<u>E. coli</u> mastitis	27.3	(±3.5)	16.1	(±1.2)	18.6	(±1.8)	25.2	(±5.0)
Clostridia	59.1	(±3.3)	30.7	(±1.5)	16.5	(±1.7)	80.0	(±3.9)
Brucellosis	87.4	(±3.6)	67.1	(±1.7)	45.1	(±2.3)	71.3	(±5.0)
<u>Mycobacterium paratuberculosis</u> (Johne's disease)	6.8	(±1.0)	6.2	(±0.8)	2.8	(±0.8)	6.3	(±2.1)
Other	6.0	(±1.0)	5.4	(±0.8)	13.5	(±1.5)	3.1	(±1.3)
None	9.9	(±3.6)	13.8	(±1.4)	15.7	(±1.7)	7.4	(±3.4)

b. Dairy cows

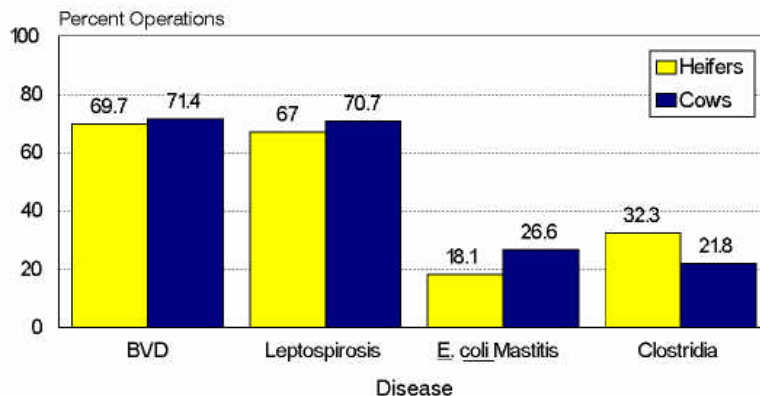
i. Percent of operations normally vaccinating dairy cows for the following diseases by herd size:

Disease	Percent Operations							
	Less Than 100		Standard 100-199		Standard 200 or More		All Operations	
		Error		Error		Error		Error
Bovine Viral Diarrhea (BVD)	68.7	(±1.5)	83.4	(±1.9)	84.5	(±1.7)	71.4	(±1.3)
Infectious Bovine Rhinotracheitis (IBR)	66.0	(±1.5)	82.2	(±2.0)	84.5	(±1.7)	69.0	(±1.3)
Parainfluenza Type 3 (PI3)	59.9	(±1.5)	74.8	(±2.3)	73.6	(±2.2)	62.5	(±1.3)
Bovine Respiratory Syncytial Virus (BRSV)	58.4	(±1.5)	71.4	(±2.3)	72.7	(±2.1)	60.8	(±1.3)
<u>Hemophilus somnus</u>	35.7	(±1.5)	51.6	(±2.7)	48.6	(±2.4)	38.4	(±1.3)
Leptospirosis	68.3	(±1.5)	80.5	(±2.1)	85.7	(±1.7)	70.7	(±1.3)
Salmonella	16.9	(±1.1)	22.7	(±2.3)	37.1	(±2.4)	18.8	(±1.0)
<u>E. coli</u> mastitis	23.1	(±1.3)	37.7	(±2.6)	53.7	(±2.4)	26.6	(±1.1)
Clostridia	18.9	(±1.2)	31.7	(±2.3)	43.1	(±2.4)	21.8	(±1.0)
Other	6.3	(±0.7)	7.0	(±1.4)	8.0	(±1.3)	6.5	(±0.6)
None	21.2	(±1.3)	9.0	(±1.6)	6.2	(±1.1)	18.9	(±1.1)

ii. Percent of operations normally vaccinating dairy cows for the following diseases by region:

Region	Percent Operations							
	West		Standard Midwest		Standard Northeast		Standard Southeast	
		Error		Error		Error		Error
Bovine Viral Diarrhea (BVD)	71.0	(±3.4)	70.2	(±1.8)	76.2	(±2.1)	63.2	(±5.7)
Infectious Bovine Rhinotracheitis (IBR)	64.1	(±4.0)	68.1	(±1.8)	74.6	(±2.0)	61.4	(±5.6)
Parainfluenza Type 3 (PI3)	58.6	(±3.8)	60.6	(±1.8)	69.6	(±2.2)	57.3	(±5.7)
Bovine Respiratory Syncytial Virus (BRSV)	52.5	(±3.8)	58.8	(±1.8)	70.4	(±2.2)	54.2	(±5.7)
<u>Hemophilus somnus</u>	40.4	(±3.7)	35.8	(±1.7)	47.0	(±2.3)	24.8	(±3.8)
Leptospirosis	74.1	(±2.6)	69.9	(±1.8)	72.6	(±2.1)	65.5	(±5.4)
Salmonella	28.7	(±3.4)	15.9	(±1.2)	22.0	(±2.0)	21.8	(±3.8)
<u>E. coli</u> mastitis	45.4	(±3.7)	24.3	(±1.4)	24.8	(±1.9)	32.1	(±5.2)
Clostridia	43.3	(±3.7)	20.1	(±1.3)	12.6	(±1.5)	51.0	(±5.3)
Other	5.2	(±0.9)	4.2	(±0.8)	13.5	(±1.5)	3.7	(±1.5)
None	15.4	(±2.1)	20.9	(±1.6)	15.0	(±1.8)	19.6	(±4.8)

Percent of Operations Normally Vaccinating Dairy Heifers and Cows for Selected Diseases



#3105

c. BVD vaccinations

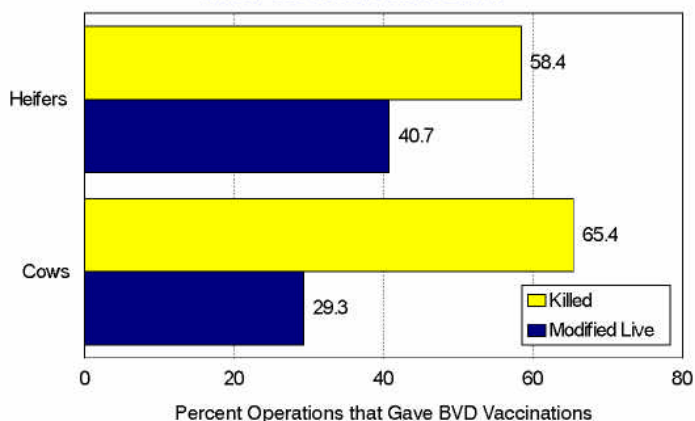
i. For operations that gave BVD vaccinations to dairy *heifers*, percent of operations by type of BVD vaccination given:

<u>BVD Vaccine</u>	<u>Percent Operations</u>					
	<u>Given</u>	<u>Standard Error</u>	<u>Didn't Know</u>	<u>Standard Error</u>	<u>Not Given</u>	<u>Standard Error</u>
Killed	58.4	(±1.5)	9.8	(±0.9)	31.8	(±1.4)
Modified live	40.7	(±1.5)	10.3	(±0.9)	49.0	(±1.5)

ii. For operations that gave BVD vaccinations to dairy *cows*, percent of operations by type of BVD vaccination given:

<u>BVD Vaccine</u>	<u>Percent Operations</u>					
	<u>Given</u>	<u>Standard Error</u>	<u>Didn't Know</u>	<u>Standard Error</u>	<u>Not Given</u>	<u>Standard Error</u>
Killed	65.4	(±1.4)	10.3	(±0.9)	24.3	(±1.2)
Modified live	29.3	(±1.3)	10.7	(±0.9)	60.0	(±1.4)

Percent of Operations by Type of BVD Vaccination Given to Heifers and Cows



#3107

iii. For operations that gave either dairy heifers or cows an initial BVD vaccination with killed BVD vaccine, percent that gave a second injection (not an annual booster):

<u>Percent Operations</u>	<u>Standard Error</u>
51.8	(±1.8)

iv. For operations that gave BVD vaccinations to dairy *cows*, percent of operations that gave annual BVD booster injections:

<u>BVD Vaccine</u>	<u>Percent Operations</u>					
	<u>Given</u>	<u>Standard Error</u>	<u>Didn't Know</u>	<u>Standard Error</u>	<u>Not Given</u>	<u>Standard Error</u>
	77.4	(±1.3)	3.5	(±0.5)	19.1	(±1.2)

v. For all operations, percent that:

<u>Vaccine/Delivery</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Used modified live vaccine (MLV) in heifers only	9.9	(±0.8)
Used MLV in cows only	2.4	(±0.4)
Used MLV in heifers or cows	30.7	(±1.1)
Used killed vaccine with second injections and annual boosters in cows or heifers	22.3	(±1.0)
Did any of the above	46.6	(±1.3)

4. Preventive practices

a. Percent operations (and percent of dairy heifers on those operations) by preventive practices normally used for dairy replacement heifers:

Practice	Percent Operations		Percent Heifers	
	Percent	Standard Error	Percent	Standard Error
Deworming	67.3	(±1.3)	64.5	(±1.5)
Coccidiostats in feed	46.5	(±1.2)	60.1	(±1.5)
Vitamins A-D-E injection	16.3	(±1.0)	22.9	(±1.4)
Vitamins A-D-E in feed	76.9	(±1.1)	79.2	(±1.5)
Selenium injection	12.7	(±0.8)	17.2	(±1.0)
Selenium in feed	70.8	(±1.2)	71.5	(±1.6)
Ionophores in feed (e.g., Rumensin-, Bovatec-)	42.2	(±1.2)	53.9	(±1.6)
Probiotics	13.1	(±0.9)	17.5	(±1.3)
Other	4.8	(±0.6)	5.4	(±0.7)
No preventives given	6.4	(±0.7)	4.0	(±1.2)

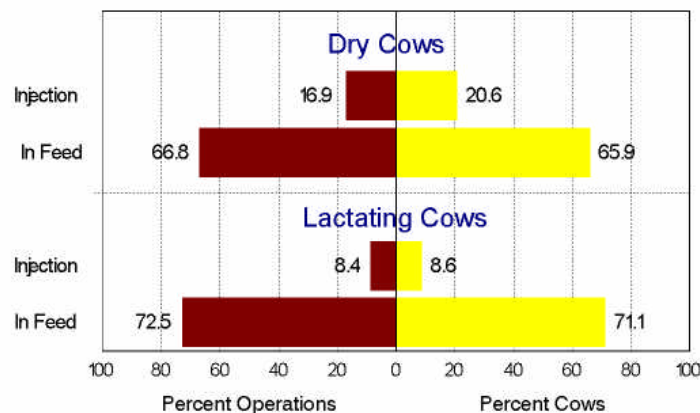
b. Percent operations (and percent of dairy cows on those operations) by preventive practices normally used in dairy cows:

Practice	Percent Operations		Percent Cows	
	Percent	Standard Error	Percent	Standard Error
Deworming	53.4	(±1.3)	47.0	(±1.1)
Vitamins A-D-E injection	15.5	(±0.9)	22.0	(±1.1)
Vitamins A-D-E in feed	81.4	(±1.1)	78.8	(±1.2)
Probiotics	16.7	(±0.9)	23.2	(±1.3)
Other	4.4	(±0.5)	4.7	(±0.6)
No preventives given	8.5	(±0.8)	9.1	(±0.9)

c. Percent operations (and percent of cows on those operations) by method of selenium supplementation normally used for dry cows and lactating cows:

Method	Dry Cows				Lactating Cows			
	Percent Operations	Standard Error	Percent Cows	Standard Error	Percent Operations	Standard Error	Percent Cows	Standard Error
Selenium injection	16.9	(±0.9)	20.6	(±1.0)	8.4	(±0.6)	8.6	(±0.6)
Selenium in feed	66.8	(±1.3)	65.9	(±1.4)	72.5	(±1.2)	71.1	(±1.4)
No selenium given	28.7	(±1.3)	28.3	(±1.3)	25.7	(±1.2)	26.6	(±1.3)

Percent of Operations by Method of Selenium Supplementation Normally Used for Dry and Lactating Cows



#3107



**E. Births, Illnesses, and Deaths**

1. Number of dairy calves born alive during 1995 as a percent of January 1, 1996, dairy cow inventory:

<u>Percent</u>	<u>Standard Error</u>
93.4	(±0.5)

2. Abortions

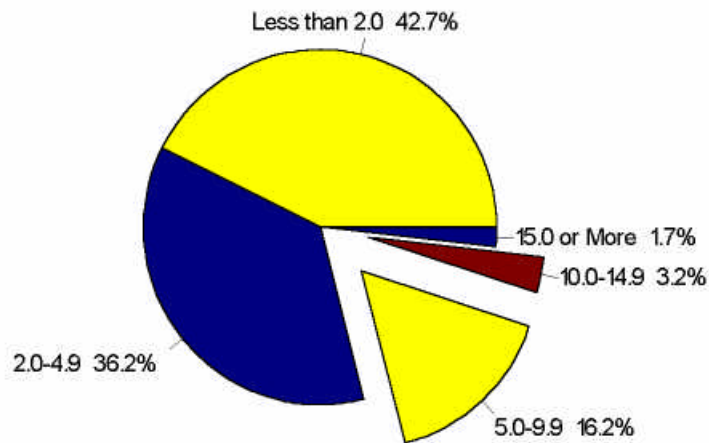
a. Number of abortions as a percent of January 1, 1996, dairy cow inventory by herd size:

<u>Number of Dairy Cows</u>	<u>Operation Average</u>	<u>Standard Error</u>	<u>Cow Average</u>	<u>Standard Error</u>
Less than 100	3.0	(±0.1)	3.2	(±0.1)
100-199	3.3	(±0.2)	3.3	(±0.1)
200 or more	3.6	(±0.1)	3.9	(±0.2)
All operations	3.1	(±0.1)	3.5	(±0.1)

b. Percent of operations by reported abortion percent:

<u>Abortion Percent</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 2.0	42.7	(±1.3)
2.0-4.9	36.2	(±1.2)
5.0-9.9	16.2	(±0.9)
10.0-14.9	3.2	(±0.5)
15 or more	<u>1.7</u>	(±0.4)
Total	100.0	

**Percent of Operations by Reported Abortion Percent**



#3108

3. Dairy cow morbidity

a. Percent of dairy cows from which producers identified the following conditions during 1995 as a percent of January 1, 1996, cow inventory by herd size:

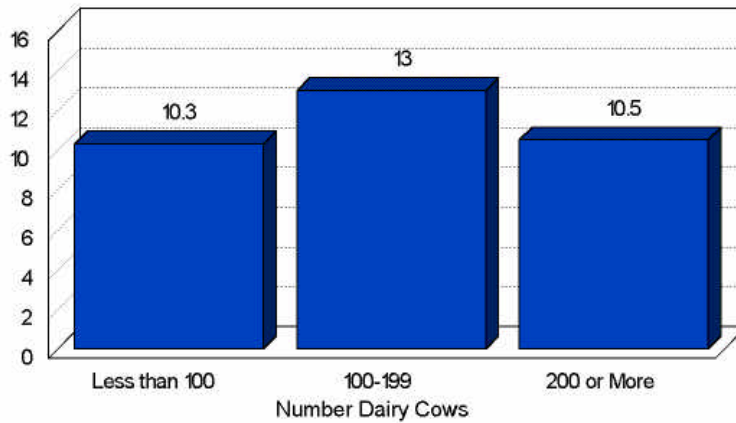
Producer-identified Health Problem	Percent of Dairy Cows															
	Less Than 100		Standard Error		Number of Dairy Cows 100-199		Standard Error		200 or More		Standard Error		All Operations		Standard Error	
Clinical mastitis	15.3	(±0.5)	12.9	(±0.6)	11.2	(±0.5)	13.4	(±0.3)	11.2	(±0.5)	13.4	(±0.3)	11.2	(±0.5)	13.4	(±0.3)
Lameness	9.5	(±0.4)	12.7	(±0.8)	10.8	(±0.6)	10.5	(±0.3)	10.8	(±0.6)	10.5	(±0.3)	10.8	(±0.6)	10.5	(±0.3)
Respiratory problems	2.5	(±0.2)	2.6	(±0.3)	2.5	(±0.2)	2.5	(±0.1)	2.5	(±0.2)	2.5	(±0.1)	2.5	(±0.2)	2.5	(±0.1)
Reproductive problems (not pregnant 150 days after calving)	11.7	(±0.3)	11.6	(±0.5)	11.3	(±0.5)	11.6	(±0.3)	11.3	(±0.5)	11.6	(±0.3)	11.3	(±0.5)	11.6	(±0.3)
Diarrhea (more than 48 hours)	4.8	(±0.5)	2.8	(±0.4)	2.0	(±0.3)	3.4	(±0.2)	2.0	(±0.3)	3.4	(±0.2)	2.0	(±0.3)	3.4	(±0.2)
Milk fever	7.3	(±0.2)	5.8	(±0.3)	4.3	(±0.3)	5.9	(±0.1)	4.3	(±0.3)	5.9	(±0.1)	4.3	(±0.3)	5.9	(±0.1)
Displaced abomasum	3.0	(±0.1)	3.4	(±0.2)	2.3	(±0.1)	2.8	(±0.1)	2.3	(±0.1)	2.8	(±0.1)	2.3	(±0.1)	2.8	(±0.1)
Retained placenta (more than 24 hours)	8.4	(±0.2)	8.4	(±0.3)	7.0	(±0.4)	7.8	(±0.2)	7.0	(±0.4)	7.8	(±0.2)	7.0	(±0.4)	7.8	(±0.2)
Other health-related problems	2.0	(±0.3)	2.6	(±0.5)	2.2	(±0.4)	2.2	(±0.2)	2.2	(±0.4)	2.2	(±0.2)	2.2	(±0.4)	2.2	(±0.2)

4. Unweaned heifer calf mortality

a. Number of dairy heifer calves (from birth to weaning) that died during 1995 as a percent of dairy heifers born alive by herd size:

Number of Dairy Cows	Percent Calves	Standard Error
Less than 100	10.3	(±0.3)
100-199	13.0	(±0.7)
200 or more	10.5	(±0.8)
All operations	10.8	(±0.4)

Percent of Dairy Unweaned Heifer Calf Deaths\* by Herd Size



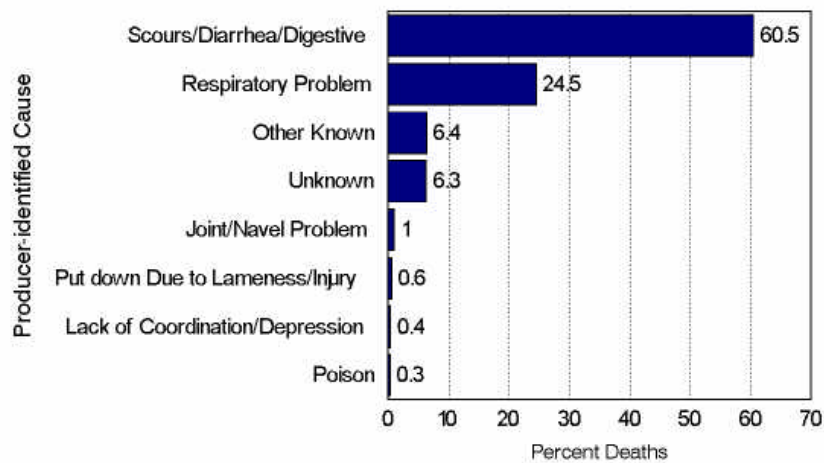
\*Number of dairy heifer calves (birth to weaning) that died as percent of dairy heifers born alive.

#3109

b. Percent of total unweaned heifer calf deaths by cause:

<u>Producer-attributed Cause of Death</u>	<u>Percent Deaths</u>	<u>Standard Error</u>
Scours, diarrhea, or other digestive problems	60.5	(±1.2)
Respiratory problems	24.5	(±1.0)
Joint or navel problems	1.0	(±0.1)
Put down due to lameness or injury	0.6	(±0.1)
Lack of coordination or severe depression	0.4	(±0.1)
Poison	0.3	(±0.1)
Other known reasons	6.4	(±1.1)
Unknown reasons	<u>6.3</u>	(±0.9)
Total	100.0	

Percent of Unweaned Heifer Calf Deaths by Cause



#3110

c. Number of unweaned heifer calf deaths by cause as a percent of heifer calves born alive:

<u>Producer-attributed Cause of Death</u>	<u>Percent Heifer Calves Born Alive</u>	<u>Standard Error</u>
Scours, diarrhea, or other digestive problems	6.5	(±0.2)
Respiratory problems	2.7	(±0.1)
Joint or navel problems	0.1	(±0.0)
Put down due to lameness or injury	0.1	(±0.0)
Lack of coordination or severe depression	0.0	(±0.0)
Poison	0.0	(±0.0)
Other known reasons	0.7	(±0.1)
Unknown reasons	<u>0.7</u>	(±0.1)
Total	10.8	(±0.4)

5. Weaned heifer mortality

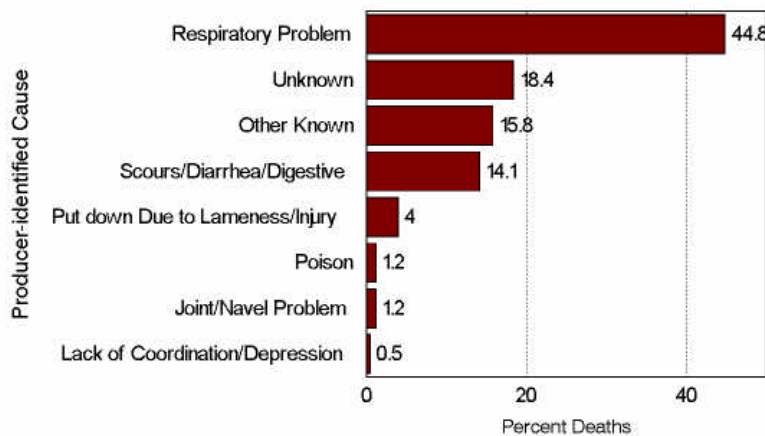
a. Number of heifers from weaning age to first calving that died during 1995 as a percent of January 1, 1996, heifer inventory (weaning age to calving) by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Heifers</u>	<u>Standard Error</u>
Less than 100	2.2	(±0.1)
100-199	2.4	(±0.2)
200 or more	2.7	(±0.3)
All operations	2.4	(±0.1)

b. Percent of total weaned heifer deaths by cause:

<u>Producer-attributed Cause of Death</u>	<u>Percent Deaths</u>	<u>Standard Error</u>
Scours, diarrhea, or other digestive problem	14.1	(±1.6)
Respiratory problem	44.8	(±2.1)
Poison	1.2	(±0.3)
Put down due to lameness or injury	4.0	(±0.5)
Lack of coordination or severe depression	0.5	(±0.1)
Joint or navel problem	1.2	(±0.5)
Other known	15.8	(±2.4)
Unknown	<u>18.4</u>	(±1.4)
Total	100.0	

Percent of Weaned Heifer Deaths by Cause



#3111

c. Number of weaned dairy heifer deaths by cause as a percent of January 1, 1996, heifer inventory (weaning age to calving):

<u>Producer-attributed Cause of Death</u>	<u>Percent Weaned Heifers</u>	<u>Standard Error</u>
Scours, diarrhea, or other digestive problem	0.3	(±0.0)
Respiratory problem	1.1	(±0.1)
Poison	0.0	(±0.0)
Put down due to lameness or injury	0.1	(±0.0)
Lack of coordination or severe depression	0.0	(±0.0)
Joint or navel problem	0.0	(±0.0)
Other known	0.4	(±0.1)
Unknown	<u>0.5</u>	(±0.0)
Total	2.4	(±0.1)

6. Dairy cow mortality

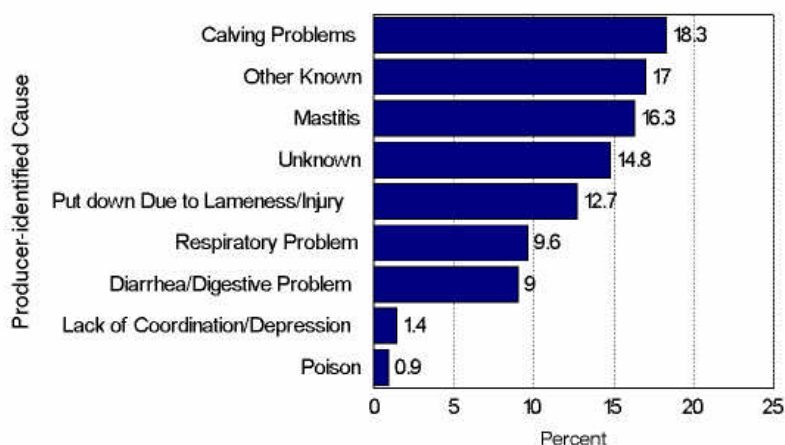
a. Number of dairy cows that died during 1995 as a percent of January 1, 1996, dairy cow inventory by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Cows</u>	<u>Standard Error</u>
Less than 100	3.6	(±0.1)
100-199	3.8	(±0.1)
200 or more	4.0	(±0.2)
All operations	3.8	(±0.1)

b. Percent of total dairy cow deaths by cause:

<u>Producer-attributed Cause of Death</u>	<u>Percent Deaths</u>	<u>Standard Error</u>
Diarrhea or other digestive problem	9.0	(±1.0)
Respiratory problem	9.6	(±0.7)
Poison	0.9	(±0.2)
Put down due to lameness or injury	12.7	(±0.7)
Lack of coordination or severe depression	1.4	(±0.2)
Mastitis	16.3	(±0.8)
Calving problems	18.3	(±0.7)
Other known reasons	17.0	(±0.9)
Unknown reasons	<u>14.8</u>	(±0.8)
Total	100.0	

Percent of Dairy Cow Deaths by Cause



#3112

c. Number of dairy cow deaths by cause as a percent of January 1, 1996, dairy cow inventory:

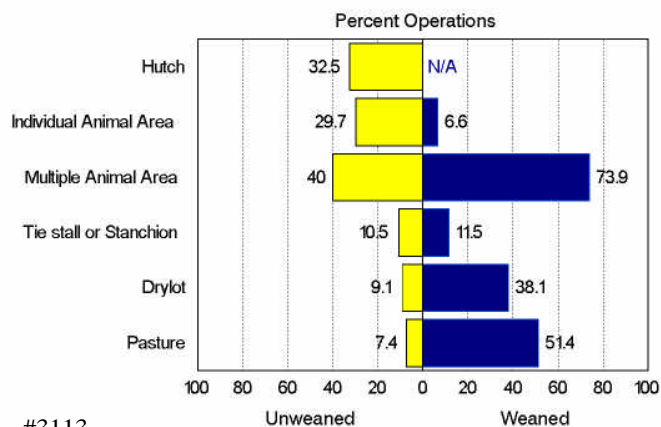
<u>Producer-attributed Cause of Death</u>	<u>Percent Cows</u>	<u>Standard Error</u>
Diarrhea or other digestive problem	0.3	(±0.0)
Respiratory problem	0.4	(±0.0)
Poison	0.0	(±0.0)
Put down due to lameness or injury	0.5	(±0.0)
Lack of coordination or severe depression	0.1	(±0.0)
Mastitis	0.6	(±0.0)
Calving problems	0.7	(±0.0)
Other known reasons	0.6	(±0.0)
Unknown reasons	<u>0.6</u>	(±0.0)
Total	3.8	(±0.1)

### F. Housing

1. Percent of operations by housing facilities used during 1995:

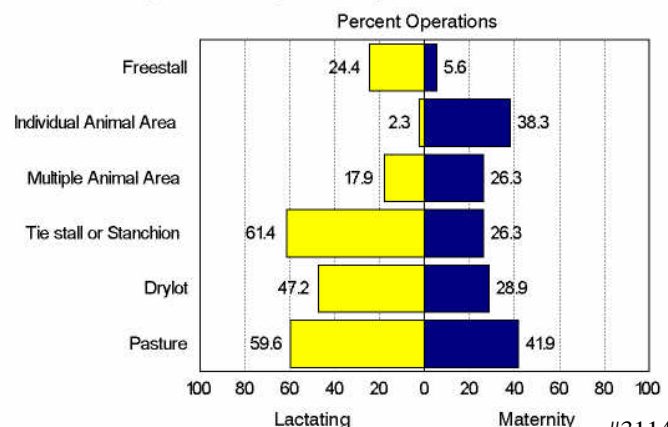
<u>Housing Type</u>	<u>Percent Operations</u>							
	<u>Unweaned Dairy Heifers</u>	<u>Stand. Error</u>	<u>Weaned Dairy Heifers</u>	<u>Stand. Error</u>	<u>Lactating Dairy Cows</u>	<u>Stand. Error</u>	<u>Maternity</u>	<u>Stand. Error</u>
Freestall	2.5	(± 0.4)	9.7	(± 0.7)	24.4	(± 0.9)	5.6	(± 0.5)
Individual animal area	29.7	(± 1.2)	6.6	(± 0.7)	2.3	(± 0.4)	38.3	(± 1.2)
Multiple animal area	40.0	(± 1.3)	73.9	(± 1.2)	17.9	(± 1.1)	26.3	(± 1.1)
Tie stall or stanchion	10.5	(± 0.7)	11.5	(± 0.8)	61.4	(± 1.0)	26.3	(± 1.1)
Drylot	9.1	(± 0.8)	38.1	(± 1.2)	47.2	(± 1.3)	28.9	(± 1.1)
Pasture	7.4	(± 0.9)	51.4	(± 1.3)	59.6	(± 1.2)	41.9	(± 1.3)
Hutch	32.5	(± 1.1)	N/A	—	N/A	—	N/A	—

Percent of Operations by Housing Facilities For Dairy Heifers



#3113

Percent of Operations by Housing Facilities For Adult Cows



#3114

2. Separate maternity housing

a. Percent of operations in which maternity housing was separate from housing used for lactating dairy cows by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Less than 100	39.1	(±1.3)
100-199	68.9	(±2.6)
200 or more	87.1	(±1.7)
All operations	45.4	(±1.2)

3. Percent of operations (and percent of cows on those operations) that used the following types of milking facilities in 1995:

<u>Facility Type</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Cows</u>	<u>Standard Error</u>
Parlor	28.8	(±0.9)	54.9	(±1.0)
Tie stall or stanchion	69.5	(±0.9)	43.9	(±1.0)
Other	2.9	(±0.5)	4.3	(±0.7)

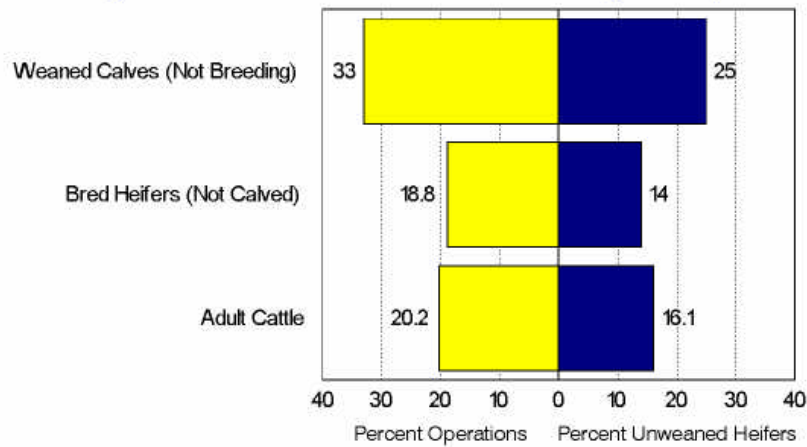
### G. Biosecurity

1. Physical contact

a. Percent of operations (and percent unweaned heifers on these operations) where after separation from the dam, heifer calves not yet weaned had physical contact<sup>1</sup> with:

<u>Age Groups</u>	<u>Percent Operations</u>	<u>Standard Error</u>	<u>Percent Unweaned Heifers</u>	<u>Standard Error</u>
Weaned calves not yet of breeding age	33.0	(±1.3)	25.0	(±1.1)
Bred heifers not yet calved	18.8	(±1.1)	14.0	(±0.9)
Adult cattle	20.2	(±1.1)	16.1	(±1.0)

**Percent of Operations Where Unweaned Heifer Calves Had Physical Contact\* with Cattle of Other Age Groups**



\*Physical contact= possible nose-to-nose contact or sniffing/touching/licking each other through a fence.

#3115

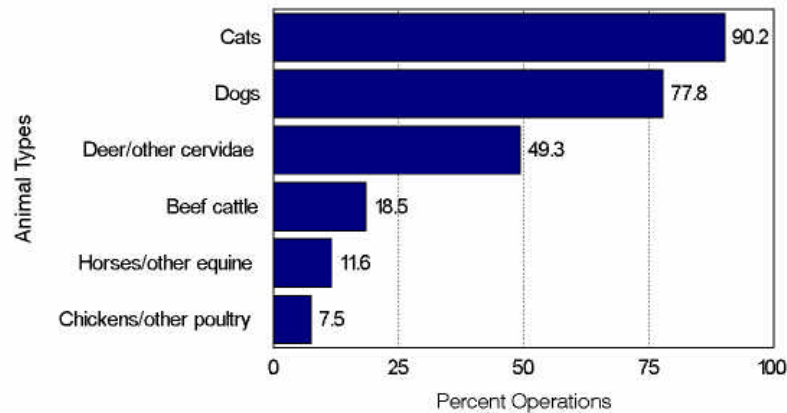
<sup>1</sup> Physical contact = possible nose-to-nose contact or sniffing/touching/licking each other, including through a fence.

b. Physical contact<sup>1</sup> with other animals

i. Percent of operations where the following animals had physical contact with female dairy cattle and/or contact with their feed, minerals, or water supply:

<u>Animal Types</u>	<u>Percent Operations</u>	<u>Standard Error</u>
Chickens or other poultry	7.5	(±0.8)
Horses or other equine	11.6	(±0.9)
Pigs	3.9	(±0.6)
Sheep	2.3	(±0.5)
Goats	3.0	(±0.5)
Beef cattle	18.5	(±1.1)
Exotic species (e.g., llamas, alpacas)	0.8	(±0.2)
Deer or other cervidae	49.3	(±1.1)
Dogs	77.8	(±1.1)
Cats	90.2	(±0.8)

**Percent of Operations Where the Following Animals Had Contact with Female Dairy Cattle\***



\* Or female dairy animals' feed, minerals, or water supply.

#3116

ii. Percent of operations where the following animals had physical contact with female dairy cattle and/or contact with their feed, minerals, or water supply by region:

<u>Animal Types</u>	<u>Percent Operations</u>							
	<u>West</u>	<u>Standard Error</u>	<u>Midwest</u>	<u>Standard Error</u>	<u>Northeast</u>	<u>Standard Error</u>	<u>Southeast</u>	<u>Standard Error</u>
Chickens or other poultry	4.9	(±0.9)	7.4	(±1.1)	8.7	(±1.2)	8.3	(±3.9)
Horses or other equine	8.3	(±1.5)	13.1	(±1.3)	9.8	(±1.5)	7.7	(±2.1)
Pigs	3.4	(±2.4)	4.9	(±0.9)	2.3	(±0.8)	0.2	(±0.1)
Sheep	2.7	(±1.4)	2.8	(±0.8)	1.3	(±0.5)	0.2	(±0.1)
Goats	1.9	(±0.5)	2.3	(±0.6)	4.3	(±1.2)	6.6	(±3.8)
Beef cattle	23.1	(±4.7)	20.1	(±1.5)	11.7	(±1.4)	23.2	(±5.1)
Exotic species (e.g., llamas, alpacas)	0.2	(±0.1)	1.1	(±0.4)	0.3	(±0.3)	0.5	(±0.4)
Deer or other cervidae	18.8	(±3.4)	54.4	(±1.4)	49.4	(±2.3)	39.7	(±3.9)
Dogs	80.7	(±2.3)	81.3	(±1.4)	70.8	(±2.1)	63.2	(±5.5)
Cats	79.9	(±3.2)	93.3	(±1.0)	88.7	(±1.5)	76.3	(±3.9)

<sup>1</sup> Physical contact = possible nose-to-nose contact or sniffing/touching/licking each other, including through a fence.

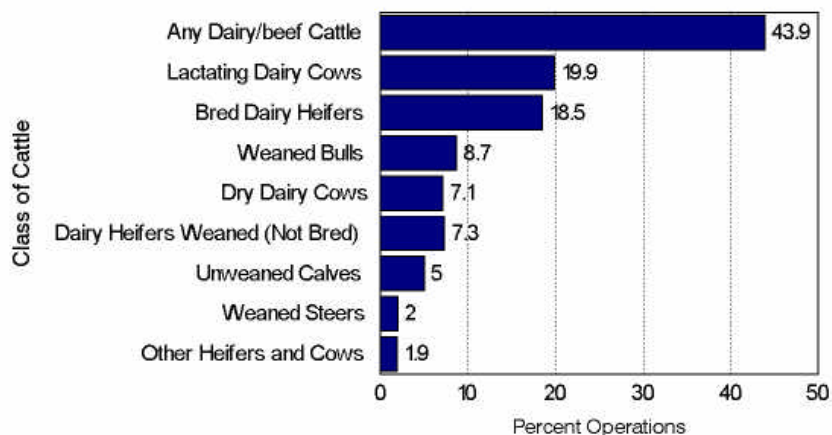


2. Biosecurity for new arrivals

a. Percent of operations that brought the following classes of cattle onto the operation during 1995 by herd size:

Class of Cattle	Less Than 100		100-199		200 or More		All Operations	
	Standard Error	Standard Error	Standard Error	Standard Error	Standard Error	Standard Error	Standard Error	
Unweaned calves	4.9	(±0.8)	5.8	(±1.4)	4.9	(±1.3)	5.0	(±0.7)
Dairy heifers weaned but not bred	6.3	(±0.8)	11.9	(±2.0)	12.5	(±1.5)	7.3	(±0.7)
Bred dairy heifers	15.4	(±1.1)	25.6	(±2.3)	48.4	(±2.4)	18.5	(±0.9)
Lactating dairy cows	19.0	(±1.2)	22.6	(±2.3)	26.0	(±2.2)	19.9	(±1.0)
Dry dairy cows	6.6	(±0.9)	8.9	(±1.5)	10.1	(±1.5)	7.1	(±0.8)
Other heifers and cows (including beef)	1.9	(±0.4)	1.8	(±0.8)	2.1	(±0.6)	1.9	(±0.4)
Bulls (weaned)	7.2	(±0.8)	12.9	(±2.0)	22.9	(±2.1)	8.7	(±0.7)
Steers (weaned)	1.9	(±0.4)	2.5	(±1.1)	2.5	(±1.0)	2.0	(±0.3)
Any beef or dairy cattle	41.2	(±1.5)	51.9	(±2.6)	65.5	(±2.3)	43.9	(±1.3)

Percent of Operations that Brought the Following Classes of Cattle onto the Operation During 1995 by Herd Size



#3117

b. Percent of operations that brought the following classes of cattle onto the operation during 1995 by region:

Class of Cattle	<u>Percent Operations</u>							
	<u>West</u>	<u>Standard Error</u>	<u>Midwest</u>	<u>Standard Error</u>	<u>Northeast</u>	<u>Standard Error</u>	<u>Southeast</u>	<u>Standard Error</u>
Unweaned calves	2.0	(±0.5)	6.0	(±1.0)	4.3	(±1.1)	1.4	(±0.9)
Dairy heifers weaned but not bred	8.0	(±1.2)	7.2	(±1.0)	7.9	(±1.3)	4.8	(±1.7)
Bred dairy heifers	25.3	(±2.4)	17.0	(±1.3)	20.3	(±1.7)	16.4	(±2.7)
Lactating dairy cows	20.3	(±3.0)	18.4	(±1.4)	25.1	(±2.0)	12.4	(±2.5)
Dry dairy cows	7.6	(±3.0)	7.2	(±1.1)	7.3	(±1.2)	3.7	(±1.4)
Other heifers and cows (including beef)	1.7	(±0.5)	1.9	(±0.5)	0.9	(±0.4)	6.5	(±2.2)
Bulls (weaned)	16.9	(±2.6)	9.3	(±1.0)	4.0	(±0.8)	11.0	(±3.5)
Steers (weaned)	1.7	(±0.6)	2.7	(±0.5)	0.5	(±0.3)	0.5	(±0.4)
Any beef or dairy cattle	51.0	(±3.7)	43.7	(±1.8)	43.1	(±2.3)	37.8	(±4.5)

c. For operations that brought dairy cows (lactating or dry) onto the operation during 1995, number of *dairy cows* brought onto the operation as a percent of the January 1, 1996, dairy cow inventory by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Cows</u>		<u>Operation Average</u>	
		<u>Standard Error</u>		<u>Standard Error</u>
Less than 100	16.3	(±1.2)	18.8	(±1.9)
100-199	15.3	(±1.8)	15.5	(±1.8)
200 or more	10.8	(±1.0)	11.7	(±1.1)
All operations	14.2	(±0.8)	17.9	(±1.5)

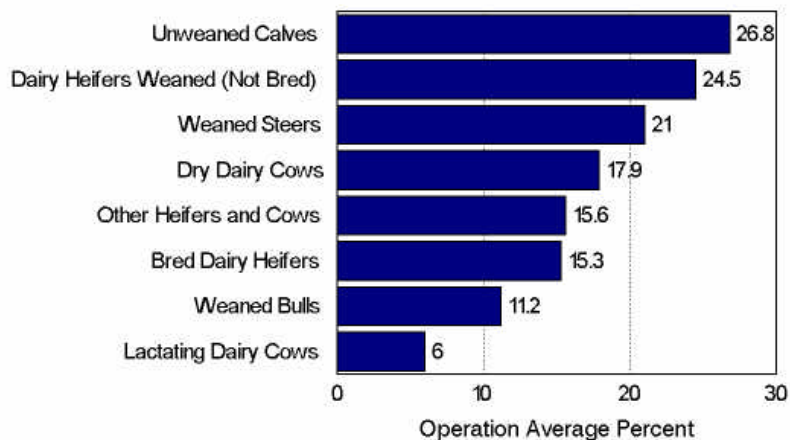
d. For operations that brought bred heifers onto the operation during 1995, number of *bred heifers* brought onto the operation as a percent of the January 1, 1996, dairy cow inventory by herd size:

<u>Number of Dairy Cows</u>	<u>Percent Bred Heifers</u>		<u>Operation Average</u>	
		<u>Standard Error</u>		<u>Standard Error</u>
Less than 100	16.4	(±2.5)	17.0	(±2.6)
100-199	13.8	(±1.9)	13.3	(±1.6)
200 or more	19.3	(±1.7)	19.8	(±1.9)
All operations	17.8	(±1.2)	16.8	(±1.8)

e. For operations that brought the following classes of cattle onto the operation during 1995, operation average percent of animals quarantined, and, if quarantined, operation average number of days quarantined:

<u>Class of Animal</u>	<u>Percent Cattle Quarantined</u>		<u>Days Quarantined</u>	
	<u>Operation Average</u>	<u>Standard Error</u>	<u>Operation Average</u>	<u>Standard Error</u>
Unweaned calves	26.8	(±5.2)	40.8	(±5.7)
Dairy heifers weaned but not bred	24.5	(±4.7)	21.5	(±4.2)
Bred dairy heifers	15.3	(±1.9)	16.8	(±2.3)
Lactating dairy cows	6.0	(±1.7)	11.7	(±2.3)
Dry dairy cows	17.9	(±4.8)	8.9	(±2.1)
Other heifers and cows (including beef)	15.6	(±6.0)	24.3	(±9.1)
Bulls (weaned)	11.2	(±2.4)	21.0	(±3.1)
Steers (weaned)	21.0	(±6.6)	41.5	(±22.0)

**Operation\* Average Percent of Cattle Quarantined by Animal Class**



\*Operations that brought cattle onto the operation.

#3118

f. For operations that brought beef or dairy cattle onto the operation during 1995, percent of operations using the following methods of disease control before bringing animals on farm

i. Vaccination normally required by operations by herd size:

<u>Vaccination Type</u>	<u>Percent Operations</u>		<u>Number of Dairy Cows</u>		<u>Percent Operations</u>		<u>Number of Dairy Cows</u>	
	<u>Less Than 100</u>	<u>Standard Error</u>	<u>100-199</u>	<u>Standard Error</u>	<u>200 or More</u>	<u>Standard Error</u>	<u>All Operations</u>	<u>Standard Error</u>
Brucellosis	48.9	(±2.5)	61.8	(±3.8)	73.8	(±2.7)	52.9	(±2.0)
Bovine viral diarrhea (BVD)	43.1	(±2.4)	59.3	(±3.8)	59.3	(±2.9)	46.8	(±2.0)
Infectious bovine rhinotracheitis (IBR)	39.2	(±2.3)	57.1	(±3.9)	58.9	(±2.9)	43.4	(±1.9)
Leptospirosis	41.9	(±2.4)	58.2	(±3.9)	55.8	(±3.0)	45.4	(±2.0)
Other	8.2	(±1.1)	12.0	(±2.9)	15.2	(±2.4)	9.4	(±1.0)
None	42.0	(±2.5)	28.3	(±3.5)	15.4	(±1.9)	37.7	(±2.0)

ii. Tests normally required by operations by herd size:

<u>Test Type</u>	<u>Percent Operations</u>		<u>Number of Dairy Cows</u>		<u>Percent Operations</u>		<u>Number of Dairy Cows</u>	
	<u>Less Than 100</u>	<u>Standard Error</u>	<u>100-199</u>	<u>Standard Error</u>	<u>200 or More</u>	<u>Standard Error</u>	<u>All Operations</u>	<u>Standard Error</u>
Brucellosis	28.5	(± 2.1)	39.7	(±3.8)	40.1	(±2.8)	31.0	(±1.7)
<u>Mycobacterium paratuberculosis</u> (Johne's disease)	8.5	(±1.3)	14.6	(±3.2)	4.7	(±1.1)	9.1	(±1.1)
Bovine viral diarrhea (BVD)	15.1	(±1.6)	21.5	(±3.4)	13.7	(±1.9)	15.9	(±1.3)
Bovine tuberculosis	22.3	(±1.9)	29.0	(±3.6)	24.8	(±2.3)	23.4	(±1.6)
Other	2.3	(±0.5)	4.1	(±2.0)	2.9	(±1.0)	2.6	(±0.5)
None	68.7	(±2.1)	58.4	(±3.8)	57.5	(±2.9)	66.3	(±1.8)

g. For operations bringing on dairy cows during 1995, percent that normally required tests or proof of health by herd size:

<u>Proof Type</u>	<u>Percent Operations</u>		<u>Number of Dairy Cows</u>		<u>Percent Operations</u>		<u>Number of Dairy Cows</u>	
	<u>Less Than 100</u>	<u>Standard Error</u>	<u>100-199</u>	<u>Standard Error</u>	<u>200 or More</u>	<u>Standard Error</u>	<u>All Operations</u>	<u>Standard Error</u>
Individual cow somatic cell count	24.7	(± 2.7)	32.1	(±5.2)	25.8	(±4.6)	25.7	(±2.3)
Herd bulk tank somatic cell count	13.4	(± 2.0)	21.1	(±3.8)	27.4	(±4.6)	15.3	(±1.7)
Individual cow milk culture	9.1	(± 1.7)	7.8	(±2.2)	9.8	(±2.5)	9.0	(±1.4)
Herd bulk tank cow milk culture	3.9	(± 0.9)	8.7	(±2.5)	23.4	(±4.4)	5.8	(±0.9)

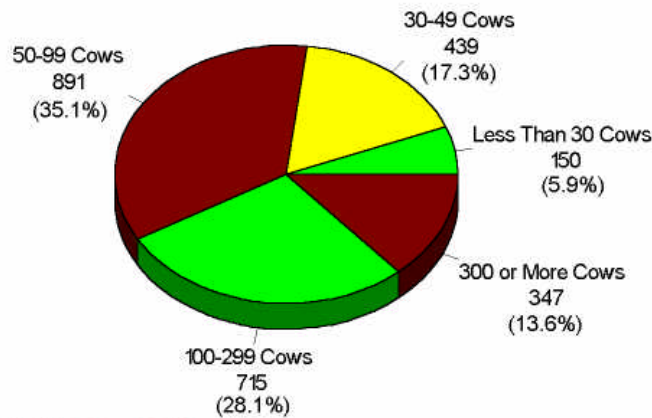
## Section II: Sample Profile

### A. Cattle Inventory on January 1, 1996

Number of Responding Operations

1. Total cattle and calves on hand:	
Less than 50	126
50-99	559
100-399	1,374
400 or more	<u>483</u>
Total	2,542
2. Total dairy cows, dry or milked:	
Less than 30	150
30-49	439
50-99	891
100-299	715
300 or more	<u>347</u>
Total	2,542

**Number of Responding Operations  
by Total Dairy Cows, Dry or Milked**



#3119

3. Total number of dairy heifers:	
Less than 10	153
10-29	480
30-49	547
50-99	686
100 or more	<u>676</u>
Total	2,542
4. Total operations with beef cows or beef replacements on hand:	
	361
5. Total operations with 50 percent or more Holstein cows:	
	2,387

# Dairy Information from NAHMS

## Two-page discussions and graphic presentations:

- *Upcoming*, Dairy '96 study results. Topics include: bovine leukosis virus (BLV), digital dermatitis (foot warts), Escherichia coli 0157, M. paratuberculosis, manure management, Neospora, and Salmonella.
- *May 1996*, Dairy '96 study results. Topics include: culling practices and biosecurity measures.
- *October 1995*, The Making of a National Study: Dairy '96. Presents results of Dairy '96 needs assessment activities and study objectives.
- *January 1994*, Bulk Tank Milk Somatic Cell Counts & Your Milk Quality Assurance Program. Assesses associations between somatic cell count and completion of the Milk and Dairy Beef Quality Assurance Program (MDBQAP).
- *September 1993 - February 1994*, National Dairy Heifer Evaluation Project results. Topics include: colostrum management, calf feeds and weaning practices, biosecurity measures, vaccination practices, nutritional supplements and feed additives, transfer of maternal immunity to calves, Cryptosporidium, Escherichia coli 0157:H7, Salmonella, blood selenium levels, etc.

## Tabular summaries of monitoring and surveillance activity results with graphic presentations:

- *Upcoming*, Trends in Dairy Health and Management Practices: 1991-1995. (Dairy '96 and National Dairy Heifer Evaluation Project results)
- *Upcoming*, Part II: Dairy '96 study results.
- *May 1996*, Part I: Reference of 1996 Dairy Management Practices. (Dairy '96 study results, 40 pages.)
- *February 1994*, Dairy Heifer Morbidity, Mortality, & Health Management Focusing on Preweaned Heifers. (National Dairy Heifer Evaluation Project results, 22 pages.)
- *July 1993*, Dairy Herd Management Practices Focusing on Preweaned Heifers. (National Dairy Heifer Evaluation Project results, 36 pages.)

Results of NAHMS studies are also available on the **swine**, **beef cow/calf**, **beef feedlot** and **sheep** industries.

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