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# Cattle and Calves Nonpredator Death Loss in the United States, 2010



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## Items of Note

### Cattle

During 2010, nonpredator causes accounted for 97.7 percent of the 1.7 million cattle death losses. Overall, 2.3 percent of the U.S. cattle inventory was lost to nonpredator causes, ranging from 1.5 percent in the Northwest region to 2.8 percent in the South Central region.

The percentage of total losses due to nonpredator causes was lower on beef operations compared with other operation types. Nonpredator causes accounted for 95.8 percent of total cattle losses on beef operations in 2010, while the percentage of total losses due to nonpredator causes on other operation types was about 99 percent.

Respiratory problems accounted for the highest percentage of nonpredator cattle losses in 2010 (26.5 percent of total nonpredator cattle losses). Other common causes of loss were “other” causes (13.8 percent) and unknown causes (12.1 percent). Weather-related causes and calving problems each accounted for about 10 percent of losses.

The percentage of losses due to mastitis was higher on dairy operations than on beef operations (13.1 and 0.3 percent, respectively). Mastitis also accounted for 8.6 percent of losses on mixed operations. Respiratory problems accounted for over half of nonpredator losses (64.3 percent) on “other” operations; many operations in this category were feedlots, which commonly experience problems with bovine respiratory disease.

### Calves

Nonpredator causes accounted for 92.0 percent of the 2.3 million calf death losses in 2010. Overall, 5.8 percent of the U.S. calf crop was lost to nonpredator causes, with losses highest in the Northeast region (7.6 percent of the calf crop).

The highest percentages of nonpredator calf losses were due to respiratory problems (29.1 percent) and digestive problems (17.2 percent). Respiratory problems accounted for nearly half of nonpredator calf losses (49.4 percent) on “other” operations.

Beef operations had a higher percentage of nonpredator calf losses due to weather-related causes (21.9 percent) compared with all other operation types: 4.2 percent for dairy operations, 8.6 percent for mixed operations, and 6.0 percent for “other” operations.

Beef operations had a lower percentage of nonpredator calf losses due to digestive problems (10.4 percent) than all other operations types: 30.6 percent for dairy operations, 30.4 percent for mixed operations, and 23.2 percent for “other” operations.

On mixed operations, the percentage of nonpredator calf losses due to calving problems ranged from 38.4 percent in the Northwest region to 5.0 percent in the Southwest region. The Southwest region also had a lower percentage of calf losses due to calving problems on beef operations compared with other regions.

## Acknowledgments

This report was a cooperative effort between two U.S. Department of Agriculture (USDA) Agencies: the National Agricultural Statistics Service (NASS) and the Animal and Plant Health Inspection Service (APHIS).

We'd like to thank the NASS enumerators who contacted cattle producers and collected the data. Their hard work and dedication were invaluable. Recognition also goes to the personnel at the USDA–APHIS–Veterinary Services' Centers for Epidemiology and Animal Health for their efforts in generating and distributing this report.

All participants are to be commended, particularly the producers whose voluntary efforts made this report possible.

A handwritten signature in black ink, appearing to read "L. Granger", with a stylized flourish at the end.

Larry Granger  
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**Feedback**

Feedback, comments, and suggestions regarding the Cattle and Calves Nonpredator Death Loss report are welcomed. Please forward correspondence via email to: NAHMS@aphis.usda.gov, or you may submit feedback via online survey at: <http://nahms.aphis.usda.gov> (Click on "FEEDBACK on NAHMS reports.")

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## Introduction

Each January, the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) collects cattle data on inventory, calf crop, and total death losses for State and national estimating programs. Inventory and calf crop estimates (number of head) are published in January, while total cattle and calves death losses (number of head) are published annually in April via the "Meat Animals: Production, Disposition and Income" report. For the January 1992, 1996, 2001, 2006, and 2011 surveys, USDA's Animal and Plant Health Inspection Service (APHIS) provided funding for a detailed breakdown of total losses by producer-attributed causes occurring the previous year. Death losses by cause were published by NASS in May of each year in this report.

This report provides a breakdown of cattle and calves losses in 2010 from all causes. Death losses by size group and by region are also provided, with special emphasis on nonpredator causes of loss. When available, 1991, 1995, 2000, and 2005 death losses are provided for comparison.

## Terms Used in This Report

**Calves:** All bulls, steers, and heifers less than 500 lb.

**Cattle:** All cows, bulls, steers, and heifers 500 lb or more.

**NA:** Not available.

### Operation classification:

**Beef:** If an operation had more beef cows than milk cows and the milk cows numbered fewer than five head, the operation was classified as a beef cattle operation.

**Dairy:** If an operation had more milk cows than beef cows and beef cows numbered fewer than five head, the operation was classified as a dairy cattle operation.

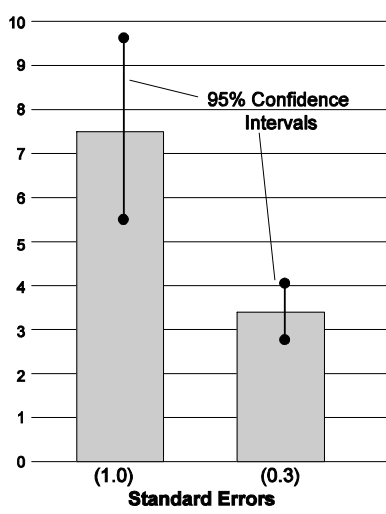
**Mixed:** If an operation had more than five beef cows and more than five milk cows, or if the number of beef cows equaled the number of milk cows, the operation was classified as a mixed operation.

**Other:** Operation that did not meet the criteria to be classified as beef, dairy, or mixed operation.

### Operation size: Total number of cows for beef, dairy, and mixed operations.

- For beef operations, size groups are: 1 to 49, 50 to 99, 100 to 499, and 500 or more head.
  - For dairy operations, size groups are: 1 to 29, 30 to 49, 50 to 99, 100 to 199, 200 to 499, and 500 or more head.
  - For mixed operations, size groups are: 1 to 99, 100 to 499, and 500 or more head.
- For other operations size groups are: 1 to 99, 100 to 499, 500 to 999 and 1,000 or more head.

### Examples of a 95% Confidence Interval



**Population estimates:** Estimates in this report are provided with a measure of precision called the standard error. A 95-percent confidence interval can be created with bounds equal to the estimate, plus or minus two standard errors. If the only error is sampling error, the confidence intervals created in this manner will contain the true population mean 95 out of 100 times. In the example to the left, an estimate of 7.5 with a standard error of 1.0 results in limits 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 0.3 and results in limits of 2.8 and 4.0. Alternatively, the 90-percent confidence interval would be created by multiplying the standard error by 1.65 instead of 2. Most estimates in this report are rounded to the nearest tenth. If rounded to 0, the standard error was reported (0.0). If there were no reports of the event, no standard error was reported (-).

**Regions:** For this study, the United States was divided into six regions\* for the purpose of providing data on smaller geographic areas. Alaska was not included because cause-of-loss estimates are not generated for the State.

**\*Regions:**

**North Central:** Iowa, Minnesota, Nebraska, North Dakota, South Dakota

**Northeast:** Connecticut, Delaware, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, Wisconsin

**Northwest:** Idaho, Montana, Oregon, Washington, Wyoming

**South Central:** Arkansas, Kansas, Missouri, Oklahoma, Texas

**Southeast:** Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee

**Southwest:** Arizona, California, Colorado, Hawaii, Nevada, New Mexico, Utah

## A. U.S. Demographics<sup>1</sup>

### 1. Inventory—January 1, 1992–2011

Number of cattle and calves, by year:

January 1 Inventory (x1,000)*					
Year					
Class	1992	1996	2001	2006	2011
All cattle and calves	97,556	103,548	97,298	96,342	92,582
Cattle 500 lb or more	79,220	85,164	81,082	81,003	78,083
Beef cows	33,007	35,319	33,398	32,703	30,865
Dairy cows	9,728	9,420	9,172	9,104	9,150
Heifers, steers, and bulls	36,485	40,426	38,511	39,196	38,068
Calves	18,336	18,384	16,216	15,339	14,500

\*Numbers may not add up due to rounding.

### 2. Operations—1991–2010

a. Number of operations with cattle and calves, beef cows, and milk cows, by year:

Number Operations					
Year					
Class	1991	1995	2000	2005	2010
Cattle and calves	1,242,270	1,190,630	1,076,370	982,510	935,000
Beef cows	910,950	897,660	831,270	770,170	742,000
Milk cows	180,640	139,670	105,055	78,300	62,500

<sup>1</sup>Source: NASS published data.

b. Percentage of operations with **beef** cows, by size of operation and by year:

<b>Percent Operations</b>					
<b>Year</b>					
<b>Size of operation</b> (number of beef cows)	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
1–49	81.2	79.8	78.8	77.5	79.2
50–99	11.2	11.8	12.0	12.3	11.1
100–499	7.6*	7.8	8.5	9.5	8.9
500 or more	NA	0.6	0.7	0.7	0.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\*100 head or more.

c. Percentage of operations with **dairy** cows, by size of operation and by year:

<b>Percent Operations</b>					
<b>Year</b>					
<b>Size of operation</b> (number of dairy cows)	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
1–29	39.8	34.5	29.3	28.7	32.0
30–49	22.8	22.2	21.1	19.0	17.6
50–99	25.9	28.1	29.7	29.6	24.8
100–199	11.5*	10.2	12.2	12.8	13.8
200 or more	NA	5.0	7.7	9.9	11.8
200–499	NA	NA	5.1	6.0	6.4
500 or more	NA	NA	2.6	3.9	5.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\*100 head or more.

d. Percentage of **beef** cow inventory, by size of operation and by year:

<b>Percent Inventory</b>					
<b>Year</b>					
<b>Size of operation</b> (number of beef cows)	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
1–49	33.1	31.2	29.5	28.0	28.0
50–99	19.9	19.2	19.1	18.9	17.4
100–499	47.0*	35.3	36.7	38.5	38.0
500 or more	NA	14.3	14.7	14.6	16.6
Total	100.0	100.0	100.0	100.0	100.0

\*100 head or more.

e. Percentage of **dairy** cow inventory, by size of operation and by year:

<b>Percent Inventory</b>					
<b>Year</b>					
<b>Size of operation</b> (number of dairy cows)	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
1–29	6.3	4.0	2.9	2.0	1.7
30–49	16.6	13.0	9.1	6.4	4.7
50–99	31.7	28.0	22.0	17.1	11.8
100–199	45.4*	20.0	18.1	14.6	12.3
200 or more	NA	35.0	47.9	59.9	69.5
200–499	NA	NA	16.6	15.4	12.8
500 or more	NA	NA	31.3	44.5	56.7
Total	100.0	100.0	100.0	100.0	100.0

\*100 head or more.

**3. Calf crop—1991–2010**

Calf crop and calf crop per 100 cows on hand, by year:

	Year				
	1991	1995	2000	2005	2010
Calf crop (1,000 head)	38,583	40,264	38,631	37,106	35,685
Calf crop per 100 cows on hand (January 1 following year)	90.3	90.0	90.7	88.8	89.2

**B. Regional Demographics<sup>2</sup>****1. Cattle and calves inventory—January 1, 1992, 1996, 2001, 2006, and 2011**

NASS does not conduct a cause-of-loss survey in Alaska; therefore Alaska is excluded from regional demographics tables and nonpredator loss estimates. Overall, the national inventory of cattle and calves remained relatively stable from 1992 to 2011, with 92.6 million head present on January 1, 2011.

Number of cattle and calves and number of cattle 500 lb or more, by region and by year:

January 1—Inventory (x1,000)										
	Cattle and calves					Cattle 500 lb or more				
Region	1992	1996	2001	2006	2011	1992	1996	2001	2006	2011
North Central	18,000	19,110	18,830	18,110	17,880	15,248	16,555	16,884	16,380	16,335
Northeast	18,638	18,184	16,111	16,125	15,563	14,598	14,259	12,903	12,838	12,459
Northwest	8,300	8,920	8,600	8,380	8,420	7,320	8,018	7,796	7,654	7,665
South Central	30,480	33,610	31,500	32,260	30,370	24,565	27,390	25,650	26,800	25,095
Southeast	10,760	11,710	9,925	9,350	8,725	8,152	8,845	7,506	7,134	6,669
Southwest	11,270	12,004	12,320	12,101	11,611	9,331	10,089	10,334	10,184	9,849
Total*	97,548	103,538	97,286	96,326	92,569	79,214	85,156	81,073	80,990	78,072

\*Excludes Alaska, so total of regions does not match published United States total shown in table A.1.

<sup>2</sup>Source: NASS published data.



## 2. Beef and dairy cow inventory—January 1, 1992, 1996, 2001, 2006, and 2011

From 1992 to 2011, the U.S. inventory of beef cows dropped from 33 million to 31 million head, and dairy-cow inventory decreased from 9.7 million to 9.1 million head. In 2011, the South Central region had more beef cows than any other region (11.3 million head), while the Northeast region had more dairy cows than any other region (3.8 million).

Number of beef and dairy cows that had calved, by region and by year:

January 1—Inventory (x1,000)										
Region	Beef cows					Dairy cows				
	1992	1996	2001	2006	2011	1992	1996	2001	2006	2011
North Central	5,618	6,072	6,151	5,976	5,462	1,232	1,078	949	824	848
Northeast	3,832	3,927	3,511	3,702	3,455	4,787	4,417	4,018	3,829	3,782
Northwest	3,641	3,874	3,721	3,479	3,398	549	626	714	856	967
South Central	11,484	12,520	11,895	12,010	11,332	856	820	715	670	708
Southeast	5,262	5,760	5,077	4,839	4,568	763	640	543	422	347
Southwest	3,167	3,153	3,040	2,690	2,644	1,540	1,838	2,178	2,502	2,497
Total*	33,004	35,316	33,395	32,696	30,859	9,727	9,419	9,117	9,103	9,149

\*Excludes Alaska, so total of regions does not match published United States total shown in table A.1.

**3. Calf crop—1991, 1995, 2000, 2005, and 2010**

About 30 percent of the 35.7 million calves born in 2010 were born in the South Central region.

Calendar year calf crop, by region and by year:

<b>Calf Crop (x1,000)</b>					
<b>Year</b>					
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
North Central	6,570	6,770	6,730	6,340	6,000
Northeast	7,823	7,5767	6,813	6,560	6,256
Northwest	3,945	4,280	4,410	4,140	4,190
South Central	11,070	11,910	11,330	11,180	10,770
Southeast	5,205	5,475	4,880	4,520	4,175
Southwest	3,968	4,249	4,464	4,361	4,290
<b>Total*</b>	<b>38,581</b>	<b>40,261</b>	<b>38,627</b>	<b>37,101</b>	<b>35,681</b>

\*Excludes Alaska, so total of regions does not match published United States total shown in table A.1.

**C. U.S. Annual Death Loss<sup>3</sup>****1. Loss from all causes—1991–2010**

During 2010, 1.7 million cattle and 2.3 million calves were lost to all causes. These totals represent 2.2 and 6.3 percent of cattle inventory and calf crop, respectively. The percentage of cattle inventory lost increased slightly from 1.9 percent in 1991 to 2.2 percent in 2010. The percentage of calf crop lost declined from 7.0 percent in 1991 to 6.3 percent in 2010.

a. Number of cattle and calf death losses due to all causes, by year:

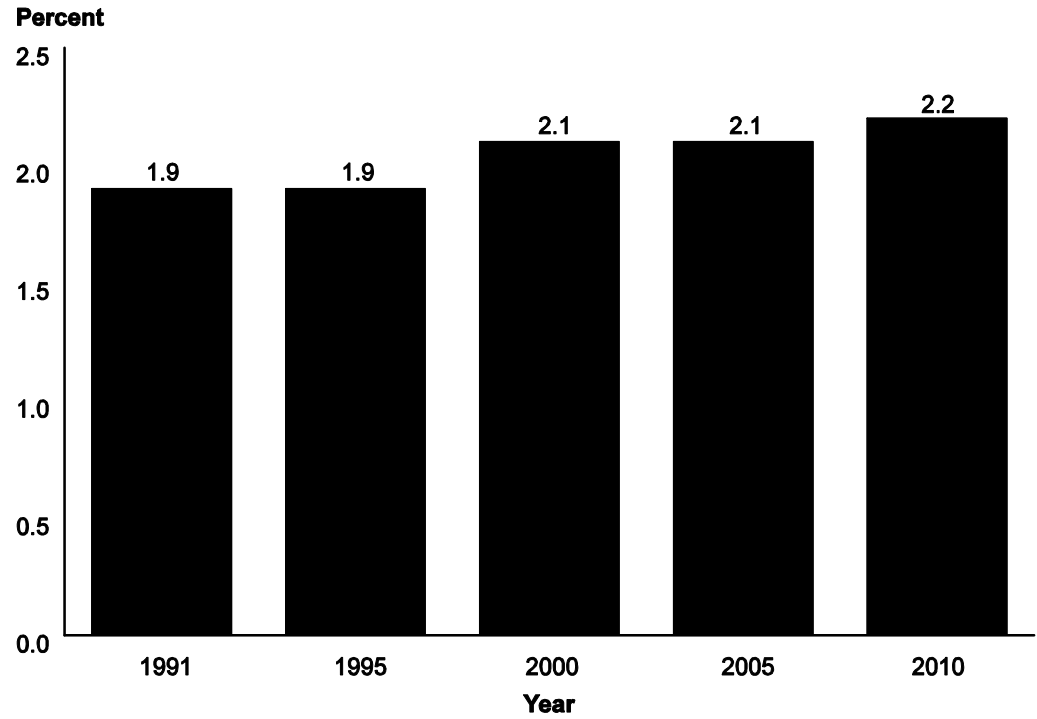
Number (x1,000)					
Year					
	1991	1995	2000	2005	2010
Cattle	1,540	1,645	1,711	1,718	1,735
Calves	2,707	2,739	2,387	2,335	2,260
Total	4,247	4,384	4,098	4,053	3,993

b. Cattle death loss as a percentage of January 1 inventory of cattle 500 lb or more on January 1 of the following year, by year:

Percent Inventory					
Year					
1991	1995	2000	2005	2010	
1.9	1.9	2.1	2.1	2.2	

<sup>3</sup>Source: NASS published data.

**Cattle death loss as a percentage of January 1 inventory of cattle 500 lb or more on January 1 of the following year, by year**



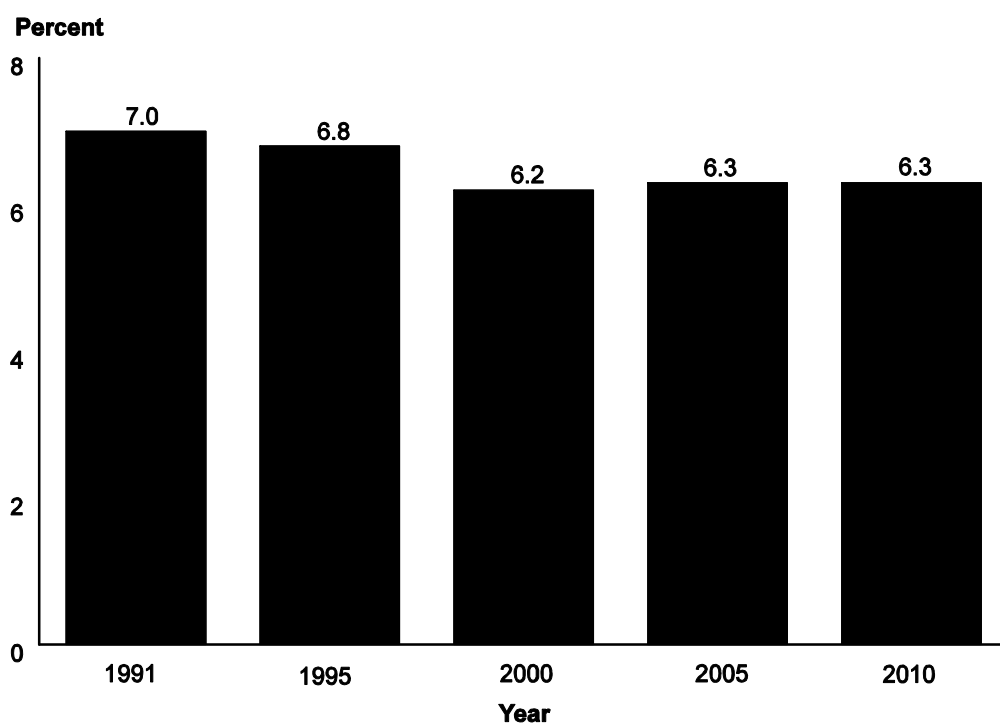
c. Calf death loss as a percentage of calf crop, by year:

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<b>Percent Calf Crop</b>				
<b>Year</b>				
<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
7.0	6.8	6.2	6.3	6.3

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**Calf death loss as a percentage of calf crop, by year**



## 2. Nonpredator and predator death loss (excluding Alaska)—1991<sup>2</sup>, 1995<sup>2</sup>, 2000<sup>2</sup>, 2005, and 2010

Since 1991, nonpredator causes accounted for the majority of cattle and calf losses. In 2010, nonpredator causes accounted for 94.5 percent of losses. The percentage of total losses due to predators increased steadily from 2.4 percent in 1991 to 5.5 percent in 2010. As expected, predators accounted for a higher percentage of calf losses than cattle losses (8.0 and 2.3 percent, respectively).

a. Number and percentage of cattle and calf death losses, by cause and by year:

Cause	Year									
	1991		1995		2000		2005		2010	
	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.
Nonpredator	4,143.4	97.6	4,263.6	97.3	3,952.0	96.4	3,861.0	95.3	3,773.0	94.5
Predator	102.0	2.4	118.8	2.7	144.6	3.6	190.0	4.7	219.9	5.5
Total	4,245.4	100.0	4,382.4	100.0	4,096.6	100.0	4,051.0	100.0	3,992.9	100.0

b. Number and percentage of cattle death losses, by cause and by year:

Cause	Year									
	1991		1995		2000		2005		2010	
	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.
Nonpredator	1523.7	99.0	1,622.7	98.7	1,689.6	98.8	1,683.0	98.0	1,694.0	97.7
Predator	15.4	1.0	21.4	1.3	20.5	1.2	34.0	2.0	39.8	2.3
Total	1,539.1	100.0	1,644.1	100.0	1,710.1	100.0	1,717.0	100.0	1,733.8	100.0

<sup>2</sup>NASS estimates of total death loss were revised in subsequent publications. However, estimates of predator and nonpredator death loss were not revised. The ratio of predator to nonpredator losses in the initial publication was maintained and applied to the revised total loss estimate to generate the losses due to predators and nonpredators in tables a., b., and c. For the 1991 estimates, cattle losses were revised from 1,583,800 to 1,539,100, and calf losses were revised from 2,786,300 to 2,706,300. For the 1995 estimates, cattle losses were revised from 1,635,100 to 1,644,100, and calf losses were revised from 2,745,300 to 2,738,300. For the 2000 estimates, cattle losses were revised from 1,721,100 to 1,710,100, and calf losses were revised from 2,409,500 to 2,386,500.

c. Number and percentage of calf death losses, by cause and by year:

Cause	Year									
	1991		1995		2000		2005		2010	
	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.
Nonpredator	2,619.7	96.8	2,640.9	96.5	2,262.4	94.8	2,178.0	93.3	2,079.0	92.0
Predator	86.6	3.2	97.4	3.5	124.1	5.2	156.0	6.7	180.1	8.0
Total	2,706.3	100.0	2,738.3	100.0	2,386.5	100.0	2,334.0	100.0	2,259.1	100.0

### 3. Regional death loss—1991, 1995, 2000, 2005, and 2010

a. Number of cattle death losses from all causes, by region and by year:

Region	Number Losses (x1,000)				
	Year				
	1991	1995	2000	2005	2010
North Central	264.0	277.0	281.0	267.0	309.0
Northeast	312.1	311.1	291.1	300.0	305.8
Northwest	103.0	115.0	124.0	117.0	116.0
South Central	498.0	522.0	625.0	635.0	625.0
Southeast	183.0	201.0	174.0	174.0	158.0
Southwest	179.0	218.0	215.0	224.0	220.0
Total*	1,539.1	1,644.1	1,710.1	1,717.0	1,733.8

\*Excludes Alaska, so total of regions does not match published United States total.

In 2010, the North Central and Northwest regions lost a smaller percentage of cattle than the other regions.

b. Cattle death loss as a percentage of January 1 inventory of cattle 500 lb or more on January 1 of the following year, by year:

<b>Percent Inventory</b>					
<b>Year</b>					
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
North Central	1.7	1.7	1.7	1.6	1.9
Northeast	2.1	2.2	2.3	2.3	2.5
Northwest	1.4	1.4	1.6	1.5	1.5
South Central	2.0	1.9	2.4	2.4	2.5
Southeast	2.2	2.3	2.3	2.4	2.4
Southwest	1.9	2.2	2.1	2.2	2.2
Total	1.9	1.9	2.1	2.1	2.2

c. Number of calf death losses from all causes, by region and by year:

<b>Number Losses (x1,000)</b>					
<b>Year</b>					
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
North Central	493.0	553.0	425.0	392.0	398.0
Northeast	717.3	673.3	538.5	543.0	505.1
Northwest	204.0	216.0	225.0	205.0	192.0
South Central	689.0	675.0	620.0	638.0	665.0
Southeast	297.0	313.0	266.0	238.0	214.0
Southwest	306.0	308.0	312.0	318.0	285.0
Total*	2,706.3	2,738.3	2,386.5	2,334.0	2,259.1

\*Excludes Alaska, so total of regions does not match published United States total.



The Northeast region lost the highest percentage of calf inventory in 2010, compared with the other regions.

d. Calf death loss as a percentage of calf crop, by region and by year:

<b>Percent Calf Crop</b>					
<b>Year</b>					
<b>Region</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
North Central	7.5	8.2	6.3	6.2	6.6
Northeast	9.2	8.9	7.9	8.3	8.1
Northwest	5.2	5.0	5.1	5.0	4.6
South Central	6.2	5.7	5.5	5.7	6.2
Southeast	5.7	5.7	5.5	5.3	5.1
Southwest	7.7	7.2	7.0	7.3	6.6
Total	7.0	6.8	6.2	6.3	6.3

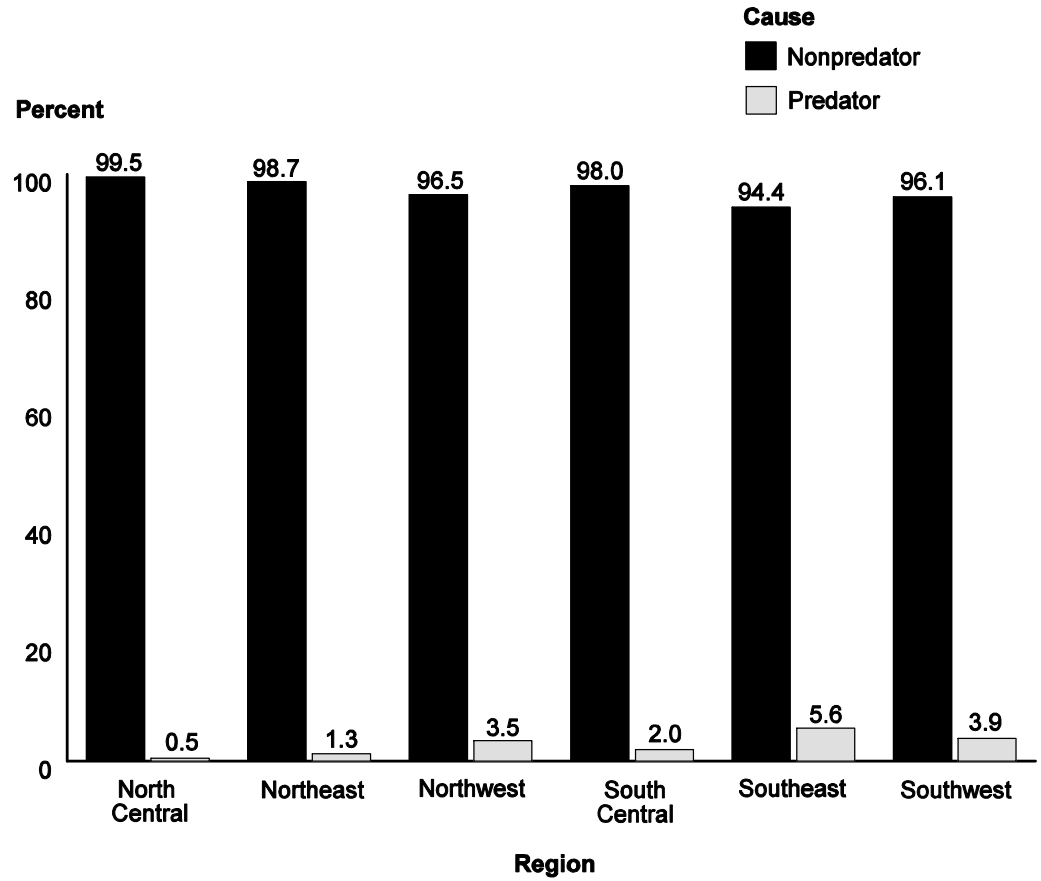
#### 4. Regional nonpredator and predator death loss—1995, 2000, 2005, and 2010

In all regions, nonpredator causes accounted for the majority of cattle losses. With the exception of the North Central region, the percentage of losses due to nonpredator causes decreased in all regions from 1995 to 2010. In the Southeast region, the percentage of losses due to nonpredator causes decreased from 98.5 percent in 1995 to 94.4 percent in 2010.

a. Number and percentage of cattle death losses by cause—by region and by year:

Region	Cause	Year							
		1995		2000		2005		2010	
		Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.
North Central	Nonpredator	274.8	99.2	280.2	99.7	265.6	99.5	307.6	99.5
	Predator	2.2	0.8	0.8	0.3	1.4	0.5	1.4	0.5
	Total	277.0	100.0	281.0	100.0	267.0	100.0	309.0	100.0
Northeast	Nonpredator	308.3	99.1	288.2	99.0	294.7	98.2	301.7	98.7
	Predator	2.8	0.9	2.9	1.0	5.3	1.8	4.1	1.3
	Total	311.1	100.0	291.1	100.0	300.0	100.0	305.8	100.0
Northwest	Nonpredator	113.5	98.7	121.9	98.3	114.1	97.5	111.9	96.5
	Predator	1.5	1.3	2.1	1.7	2.9	2.5	4.1	3.5
	Total	115.0	100.0	124.0	100.0	117.0	100.0	116.0	100.0
South Central	Nonpredator	514.2	98.5	619.7	99.2	625.0	98.4	612.2	98.0
	Predator	7.8	1.5	5.3	0.8	10.0	1.6	12.8	2.0
	Total	522.0	100.0	625.0	100.0	635.0	100.0	625.0	100.0
Southeast	Nonpredator	198.0	98.5	170.5	98.0	165.1	94.9	149.2	94.4
	Predator	3.0	1.5	3.5	2.0	8.9	5.1	8.8	5.6
	Total	201.0	100.0	174.0	100.0	174.0	100.0	158.0	100.0
Southwest	Nonpredator	214.1	98.2	208.8	97.1	218.5	97.5	211.4	96.1
	Predator	3.9	1.8	6.2	2.9	5.5	2.5	8.6	3.9
	Total	218.0	100.0	215.0	100.0	224.0	100.0	220.0	100.0

**Percentage of 2010 cattle death losses, by cause and by region**

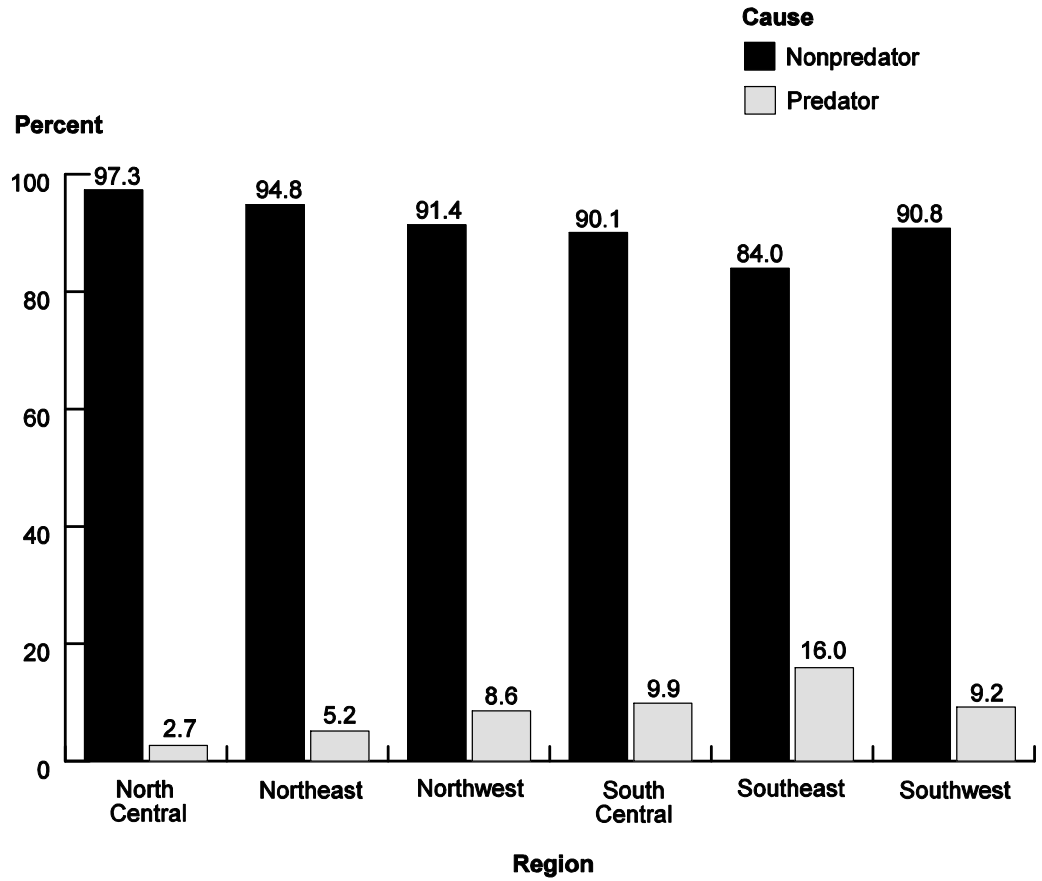


In all regions in 2010, nonpredator causes accounted for the majority of calf losses. The percentage of total losses due to nonpredator causes ranged from 84.0 percent in the Southeast region to 97.3 percent in the North Central region.

b. Number and percentage of calf death losses by cause—by region and by year:

Region	Cause	Year							
		1995		2000		2005		2010	
		Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.	Number (x1,000)	Pct.
North Central	Nonpredator	545.3	98.6	416.9	98.1	382.1	97.5	387.2	97.3
	Predator	7.7	1.4	8.1	1.9	9.9	2.5	10.8	2.7
	Total	553.0	100.0	425.0	100.0	392.0	100.0	398.0	100.0
Northeast	Nonpredator	662.5	98.4	526.1	97.7	520.3	95.8	478.7	94.8
	Predator	10.8	1.6	12.4	2.3	22.7	4.2	26.4	5.2
	Total	673.3	100.0	538.5	100.0	543.0	100.0	505.1	100.0
Northwest	Nonpredator	206.1	95.4	210.1	93.3	191.4	93.4	175.4	91.4
	Predator	9.9	4.6	14.9	6.7	13.6	6.6	16.6	8.6
	Total	216.0	100.0	225.0	100.0	205.0	100.0	192.0	100.0
South Central	Nonpredator	636.5	94.3	581.6	93.8	581.0	91.1	599.3	90.1
	Predator	38.5	5.7	38.4	6.2	57.0	8.9	65.7	9.9
	Total	675.0	100.0	620.0	100.0	638.0	100.0	665.0	100.0
Southeast	Nonpredator	299.5	95.7	242.4	91.1	205.6	86.4	179.7	84.0
	Predator	13.5	4.3	23.6	8.9	32.4	13.6	34.3	16.0
	Total	313.0	100.0	266.0	100.0	238.0	100.0	214.0	100.0
Southwest	Nonpredator	292.3	94.9	284.5	91.2	297.6	93.6	258.7	90.8
	Predator	15.7	5.1	27.5	8.8	20.4	6.4	26.3	9.2
	Total	308.0	100.0	312.0	100.0	317.0	100.0	285.0	100.0

**Percentage of 2010 calf death losses, by cause and by region**



## Section II: Population Estimates—2010 Nonpredator Loss Percentages

Note: Analysis in this section excludes Alaska.

### A. Operation Classification

#### 1. Operation classification process

This section reports death loss and cause of loss on four operation types: beef, dairy, mixed operations, and other (see Terms Used in This Report, p 2, for definition of operation types). NASS collects inventory numbers of beef cows, milk cows, and heifers on each operation; however, animal breed is not specified in death-loss numbers. To estimate death loss, operations were classified based on inventory numbers of beef and dairy cows.

#### 2. Operation characteristics

Nearly two-thirds of the January 1, 2011, inventory of cattle and calves (66.1 percent) was on beef operations. Over 99 percent of beef cows were on beef operations, and 0.8 percent were on mixed operations. Over 94 percent of the dairy cow inventory was on dairy operations, and 5.6 percent was on mixed operations.

a. Percentage of January 1, 2011, inventory for all cattle and calves, beef cows, and dairy cows, by operation type:

Operation type	Percent Inventory					
	All cattle and calves		Beef cows		Dairy cows	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Beef	66.1	(0.5)	99.2	(0.1)	0.1	(0.0)
Dairy	17.4	(0.3)	0.0	(0.0)	94.3	(0.5)
Mixed	1.6	(0.1)	0.8	(0.1)	5.6	(0.5)
Other	14.9	(0.5)	0.0	(--)	0.0	(--)
Total	100.0		100.0		100.0	

Across all operation types, nonpredator causes accounted for the majority of cattle losses in 2010. On beef operations, 95.8 percent of losses were due to nonpredator causes, compared with about 99 percent of losses on the other operation types.

b. Percentage of 2010 **cattle** death loss, by cause and by operation type:

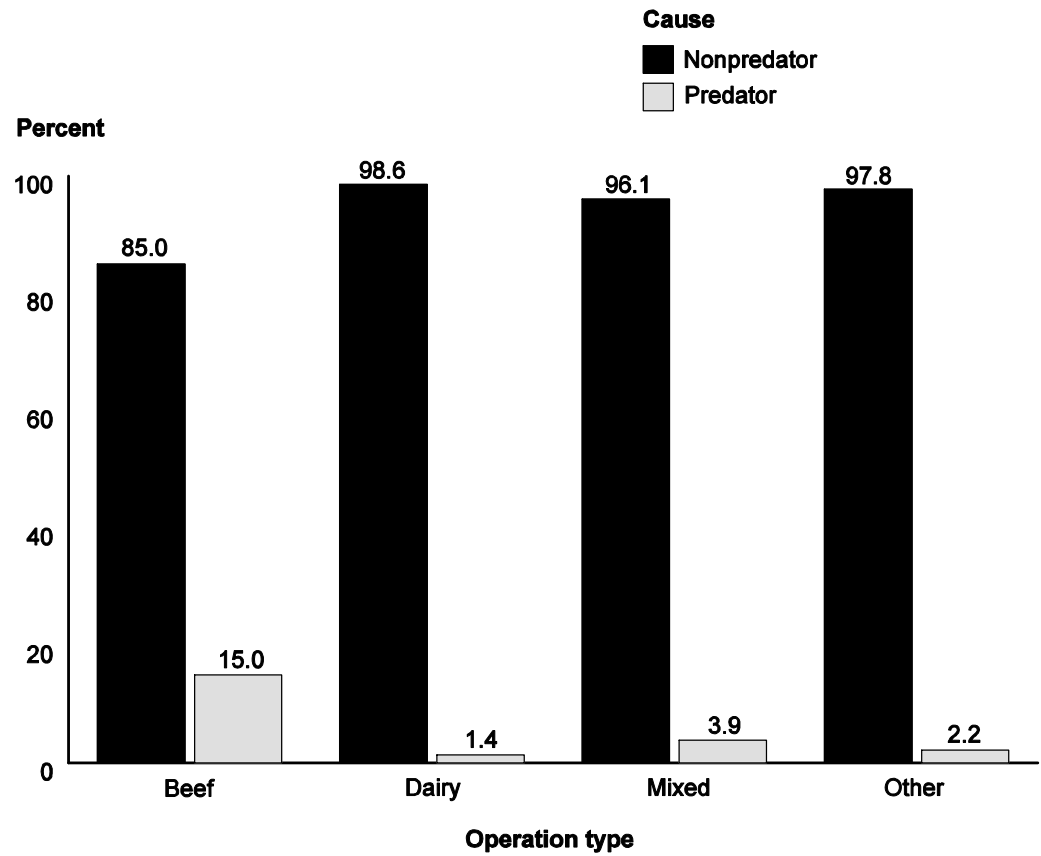
Percent Losses								
Operation Type								
	Beef		Dairy		Mixed		Other	
Cause	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Nonpredator	95.8	(0.5)	99.7	(0.1)	98.7	(0.4)	99.2	(0.3)
Predator	4.2	(0.5)	0.3	(0.1)	1.3	(0.4)	0.8	(0.3)
Total	100.0		100.0		100.0		100.0	

On beef operations, 85.0 percent of calf losses were due to nonpredator causes, compared with at least 96 percent of losses on dairy, mixed, and other operations (98.6, 96.1, and 97.8 percent of losses, respectively).

c. Percentage of 2010 **calf** death loss, by cause and operation type:

Percent Losses								
Operation Type								
	Beef		Dairy		Mixed		Other	
Cause	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Nonpredator	85.0	(0.8)	98.6	(0.2)	96.1	(0.8)	97.8	(0.6)
Predator	15.0	(0.8)	1.4	(0.2)	3.9	(0.8)	2.2	(0.6)
Total	100.0		100.0		100.0		100.0	

**Percentage of 2010 calf death loss, by cause and by operation type**





A total of 51.4 percent of nonpredator cattle losses and 62.4 percent of nonpredator calf losses occurred on beef operations, which is most likely a reflection of the percentages of cattle and calves inventories on beef operations.

d. Percentage of 2010 **nonpredator** cattle and calf death losses, by operation type:

Operation type	Percent Nonpredator Loss			
	Cattle		Calf	
	Percent	Std. error	Percent	Std. error
Beef	51.4	(1.0)	62.4	(1.8)
Dairy	25.3	(0.6)	22.6	(0.8)
Mixed	1.8	(0.1)	2.0	(0.2)
Other	21.5	(1.1)	13.0	(2.4)
Total	100.0		100.0	

**B. Nonpredator  
Cattle Death Loss****1. Losses—2010**

The percentage of cattle inventory lost to nonpredator causes ranged from 1.5 percent in the Northwest region to 2.8 percent in the South Central region.

a. Percentage of cattle inventory lost, by region:

Region	Percent Inventory*	
	Percent	Std. error
North Central	2.0	(0.1)
Northeast	2.4	(0.1)
Northwest	1.5	(0.1)
South Central	2.8	(0.1)
Southeast	2.3	(0.1)
Southwest	2.2	(0.1)
All Operations	2.3	(0.0)

\*2010 death loss due to nonpredator causes divided by end-of-year (January 1, 2011) inventory of cattle 500 lb or more x 100.

Overall, 1.8 percent of cattle inventory on beef operations was lost to nonpredator causes. In the three southern regions, operations with 1 to 49 operations lost a higher percentage of inventory to nonpredator causes than operations with 500 or more cows.

b. For **beef** operations, percentage of cattle inventory lost, by region and by size of operation:

Region	Percent Inventory*									
	Size of Operation (number of cows)									
	1–49		50–99		100–499		500 or more		All operations	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
North Central	1.7	(0.2)	1.6	(0.2)	1.2	(0.1)	1.3	(0.1)	1.4	(0.1)
Northeast	1.7	(0.1)	1.6	(0.1)	1.2	(0.1)	1.4	(0.3)	1.5	(0.1)
Northwest	1.3	(0.2)	1.4	(0.1)	1.0	(0.1)	0.9	(0.1)	1.0	(0.0)
South Central	3.7	(0.2)	2.4	(0.2)	1.7	(0.1)	1.8	(0.6)	2.4	(0.1)
Southeast	2.8	(0.1)	2.1	(0.1)	1.6	(0.1)	1.1	(0.1)	2.1	(0.1)
Southwest	2.2	(0.4)	1.4	(0.3)	1.3	(0.1)	1.0	(0.1)	1.4	(0.1)
All operations	2.7	(0.1)	2.0	(0.1)	1.4	(0.0)	1.3	(0.2)	1.8	(0.0)

\*2010 death loss divided by end-of-year (January 1, 2011) inventory of cattle 500 lb or more x 100.

Overall, 3.4 percent of cattle inventory on dairy operations was lost to nonpredator causes, ranging from 3.1 percent of inventory in the Northeast and Southwest regions to 5.2 percent in the South Central region.

c. For **dairy** operations, percentage of cattle inventory lost, by region and by size of operation:

Region	Percent Inventory <sup>1</sup>													
	Size of Operation (number of cows)													
	1–29		30–49		50–99		100–199		200–499		500 or more		All operations	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
North Central	14.4	(8.0)	3.1	(0.8)	3.3	(0.4)	3.5	(0.3)	3.2	(0.3)	6.1	(0.4)	4.4	(0.3)
Northeast	2.1	(0.4)	3.4	(0.3)	3.3	(0.2)	3.1	(0.2)	2.9	(0.2)	3.2	(0.1)	3.1	(0.1)
Northwest	0.2	(0.2)	<sup>2</sup>		3.5	(0.5)	4.4	(0.7)	4.0	(0.3)	3.2	(0.2)	3.4	(0.2)
South Central	10.3	(3.9)	1.6	(0.5)	6.2	(1.7)	4.4	(1.1)	4.5	(0.6)	5.0	(0.4)	5.2	(0.4)
Southeast	1.7	(1.2)	<sup>2</sup>		3.6	(0.7)	2.7	(0.3)	4.0	(0.3)	3.6	(0.7)	3.5	(0.4)
Southwest	5.9	(1.2)	<sup>2</sup>		6.0	(3.2)	2.3	(0.4)	2.6	(0.2)	3.1	(0.1)	3.1	(0.1)
All operations	4.5	(1.1)	3.6	(0.3)	3.5	(0.2)	3.2	(0.1)	3.0	(0.1)	3.5	(0.1)	3.4	(0.1)

<sup>1</sup>2010 death loss divided by end-of-year (January 1, 2011) inventory of cattle 500 lb or more x 100.

<sup>2</sup>Too few operations to report.

On mixed operations, 2.6 percent of inventory was lost to nonpredator causes.

d. For **mixed** operations, percentage of cattle inventory lost, by region and by size of operation:

Region	Percent Inventory <sup>1</sup>							
	Size of Operation (number of cows)							
	1–99		100–499		500 or more		All operations	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
North Central	3.1	(0.5)	2.5	(0.3)	1.9	(0.3)	2.7	(0.3)
Northeast	2.7	(0.4)	2.1	(0.3)	2.7	(0.5)	2.4	(0.2)
Northwest	5.4	(1.3)	2.5	(0.5)	1.7	(0.3)	2.1	(0.3)
South Central	1.3	(0.7)	2.9	(0.4)	3.1	(0.5)	2.9	(0.3)
Southeast	3.5	(0.9)	2.4	(0.3)	3.2	(0.6)	3.0	(0.4)
Southwest	<sup>2</sup>		4.3	(0.7)	1.7	(0.4)	2.1	(0.4)
All operations	2.9	(0.3)	2.5	(0.2)	2.5	(0.2)	2.6	(0.1)

<sup>1</sup>2010 death loss divided by end-of-year (January 1, 2011) inventory of cattle 500 lb or more x 100.

<sup>2</sup>Too few operations to report.

On “other” operations, 3.3 percent of inventory was lost to nonpredator causes.

e. For **other** operations, percentage of cattle inventory lost, by region and by size of operation:

<b>Percent Inventory*</b>										
<b>Size of Operation</b> (number of cattle and calves)										
<b>Region</b>	<b>1–99</b>		<b>100–499</b>		<b>500–999</b>		<b>1,000 or more</b>		<b>All operations</b>	
	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>
North Central	7.2	(1.2)	1.9	(0.2)	2.3	(0.2)	3.5	(0.4)	3.2	(0.2)
Northeast	2.8	(0.4)	3.8	(2.0)	1.6	(0.4)	2.0	(0.2)	2.9	(0.7)
Northwest	10.8	(4.9)	1.4	(0.5)	1.3	(0.2)	1.5	(0.2)	2.6	(0.6)
South Central	15.0	(3.9)	3.2	(0.6)	4.1	(1.4)	3.4	(0.3)	3.8	(0.3)
Southeast	5.9	(2.8)	1.8	(1.0)	2.1	(0.9)	2.1	(0.5)	2.8	(0.9)
Southwest	5.9	(2.3)	1.1	(0.5)	1.9	(0.9)	2.7	(0.3)	2.7	(0.3)
All operations	6.4	(0.8)	2.7	(0.6)	2.5	(0.4)	3.1	(0.2)	3.3	(0.2)

\*2010 death loss divided by end-of-year (January 1, 2011) inventory of cattle 500 lb or more x100.

## 2. Cause of loss—1991, 1995, 2000, 2005, and 2010

Since 1991, respiratory problems accounted for the highest percentage of nonpredator cattle losses (26.5 percent in 2010). Other common causes of loss in 2010 included “other” causes (13.8 percent), and unknown causes (12.1 percent). Weather-related causes and calving problems each accounted for almost 10 percent of losses. The percentages of losses due to digestive problems and calving problems declined steadily from 1991 to 2010.

a. Percentage of cattle death loss, by cause and by year:

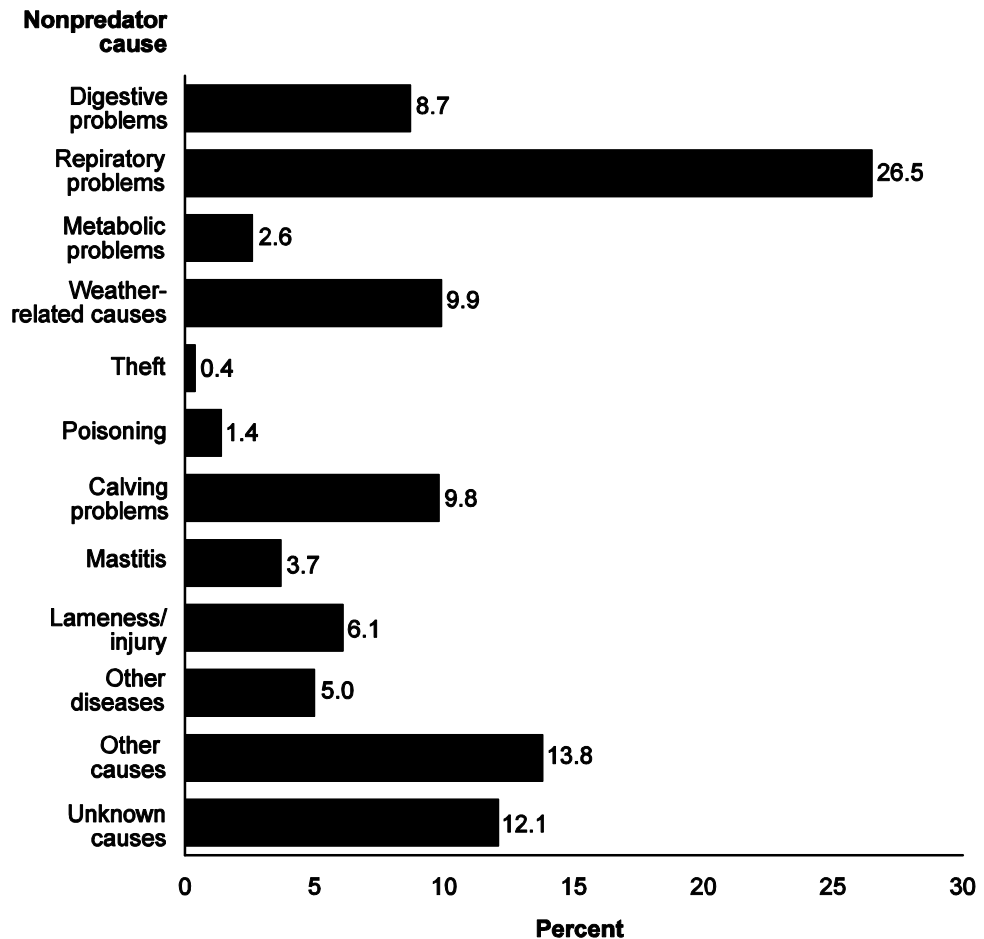
Percent Nonpredator Loss					
Nonpredator cause	1991	1995	2000	2005	2010
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.8	12.2	10.5	11.1	8.7
Respiratory problems (pneumonia, shipping fever, etc.)	26.1	26.0	27.1	24.8	26.5
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	4.0	3.6	2.6
Weather-related causes (chilling, drowning, lightning, etc.)	7.4	8.3	8.0	6.5	9.9
Theft (stolen)	1.0	0.5	1.2	0.6	0.4
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	3.2	2.0	1.6	1.4	1.4
Calving problems	16.2	15.3	12.4	11.1	9.8
Mastitis <sup>1</sup>	NA	NA	NA	4.0	3.7
Lameness/injury <sup>2</sup>	NA	NA	NA	5.3	6.1
Other diseases <sup>3</sup>	NA	NA	6.1	5.8	5.0
Other causes <sup>3</sup>	33.3	35.7	13.2	12.5	13.8
Unknown causes <sup>3</sup>	NA	NA	15.9	13.3	12.1
Total	100.0	100.0	100.0	100.0	100.0

<sup>1</sup>Mastitis included in “other causes” in 1991 and 1995 and in “other diseases” in 2000.

<sup>2</sup>Lameness/injury included in “other causes” in 1991, 1995, and 2000.

<sup>3</sup>“Other diseases” and “unknown causes” included in “other causes” in 1991 and 1995.

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**Percentage of 2010 cattle death loss, by cause**


“Other” causes accounted for one-fifth of cattle losses on beef operations (20.6 percent). Losses due to weather-related causes increased from 9.1 percent in 2005 to 14.8 percent in 2010. Not surprisingly, the percentage of losses due to mastitis was higher on dairy operations than on beef operations (13.1 and 0.3 percent, respectively). Mastitis also accounted for 8.6 percent of losses on mixed operations, likely because 5.6 percent of the dairy cow inventory was on mixed operations (see table 2a, p 18). Respiratory problems accounted for over half of nonpredator losses (64.3 percent) on “other” operations; many operations in this category are feedlots, which commonly experience problems with bovine respiratory disease.



b. For **beef** operations, percentage of cattle death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	9.3	10.3	7.5	(0.4)	7.5	(0.5)	6.6	(0.7)
Respiratory problems (pneumonia, shipping fever, etc.)	12.8	14.2	16.9	(0.8)	18.7	(1.8)	16.0	(1.7)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	1.7	(0.2)	1.2	(0.1)	1.1	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	10.0	10.0	11.9	(0.7)	9.1	(0.6)	14.8	(0.9)
Theft (stolen)	2.3	0.6	2.2	(1.2)	0.9	(0.2)	0.7	(0.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	6.1	3.2	2.6	(0.3)	2.2	(0.4)	2.3	(0.3)
Calving problems	18.9	19.0	15.5	(0.7)	14.2	(0.6)	12.7	(0.7)
Mastitis <sup>2</sup>	NA	NA	NA	(—)	0.5	(0.1)	0.3	(0.1)
Lameness/injury <sup>3</sup>	NA	NA	NA	(—)	3.4	(0.2)	3.9	(0.3)
Other diseases <sup>4</sup>	NA	NA	3.4	(0.4)	5.4	(0.5)	5.5	(0.5)
Other causes <sup>4</sup>	40.6	42.7	16.8	(0.7)	19.8	(0.9)	20.6	(0.9)
Unknown causes <sup>4</sup>	NA	NA	21.5	(0.9)	17.1	(0.8)	15.5	(0.8)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

<sup>3</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>4</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

c. For **dairy** operations, percentage of cattle death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	14.3	15.2	12.2	(0.5)	12.3	(0.6)	12.0	(0.5)
Respiratory problems (pneumonia, shipping fever, etc.)	11.4	18.6	14.6	(0.6)	14.4	(0.8)	16.4	(0.5)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	10.6	(0.5)	9.9	(0.5)	7.3	(0.4)
Weather-related causes (chilling, drowning, lightning, etc.)	4.4	8.2	4.3	(0.8)	2.0	(0.2)	2.1	(0.2)
Theft (stolen)	0.3	0.0	0.2	(0.1)	0.1	(0.1)	0.1	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.9	0.9	0.6	(0.2)	0.5	(0.1)	0.6	(0.2)
Calving problems	26.3	19.3	13.8	(0.5)	12.5	(0.6)	11.1	(0.6)
Mastitis <sup>2</sup>	NA	NA	NA	(—)	12.8	(0.5)	13.1	(0.5)
Lameness/injury <sup>3</sup>	NA	NA	NA	(—)	10.5	(0.5)	13.5	(0.5)
Other diseases <sup>4</sup>	NA	NA	15.4	(0.7)	8.3	(1.4)	6.0	(0.4)
Other causes <sup>4</sup>	41.4	37.8	15.3	(1.0)	6.2	(0.6)	9.6	(1.0)
Unknown causes <sup>4</sup>	NA	NA	13.0	(0.5)	10.5	(0.7)	8.2	(0.6)
Total	100.0	100.0	100.0		100.0		100.0	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

<sup>3</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>4</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

d. For **mixed** operations, percentage of cattle death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.8	19.9	11.3	(1.3)	7.7	(1.7)	14.3	(2.1)
Respiratory problems (pneumonia, shipping fever, etc.)	9.4	22.5	16.8	(1.7)	15.2	(3.6)	17.0	(1.8)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	10.1	(1.4)	11.9	(3.2)	5.4	(1.0)
Weather-related causes (chilling, drowning, lightning, etc.)	8.7	8.8	10.0	(1.5)	3.5	(1.0)	5.4	(0.9)
Theft (stolen)	0.4	0.01	1.7	(1.2)	0.1	(0.1)	0.2	(0.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	3.1	0.01	0.4	(0.2)	0.8	(0.4)	0.5	(0.2)
Calving problems	28.3	15.0	16.0	(1.4)	12.7	(3.2)	10.6	(1.4)
Mastitis <sup>2</sup>	NA	NA	NA	(—)	15.8	(6.4)	8.6	(1.0)
Lameness/injury <sup>3</sup>	NA	NA	NA	(—)	7.4	(1.8)	12.9	(1.7)
Other diseases <sup>4</sup>	NA	NA	7.3	(0.9)	4.3	(1.3)	5.2	(1.6)
Other causes <sup>4</sup>	37.3	33.8	10.5	(1.5)	10.1	(2.6)	11.4	(1.8)
Unknown <sup>4</sup>	NA	NA	15.9	(1.5)	10.5	(3.5)	8.5	(1.5)
Total	100.0	100.0	100.0		100.0		100.0	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

<sup>3</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>4</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

e. For **other** operations, percentage of cattle death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	15.6	12.1	14.9	(0.9)	18.8	(2.9)	9.6	(1.2)
Respiratory problems (pneumonia, shipping fever, etc.)	58.4	67.2	64.1	(2.5)	54.2	(2.7)	64.3	(2.4)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	1.2	(0.1)	0.6	(0.1)	0.2	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	6.9	3.3	3.5	(0.3)	6.0	(1.5)	7.9	(1.7)
Theft (stolen)	0.3	0.01	0.1	(0.0)	0.4	(0.2)	0.1	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.7	0.01	0.6	(0.3)	0.4	(0.2)	0.2	(0.1)
Calving problems	1.7	1.5	3.6	(2.0)	1.4	(0.6)	1.2	(0.4)
Mastitis <sup>2</sup>	NA	NA	NA	(—)	0.1	(0.0)	0.1	(0.0)
Lameness/injury <sup>3</sup>	NA	NA	NA	(—)	3.7	(1.0)	2.3	(0.3)
Other diseases <sup>4</sup>	NA	NA	1.6	(0.4)	3.9	(0.9)	2.7	(0.5)
Other causes <sup>4</sup>	16.4	15.9	3.5	(0.8)	2.4	(0.5)	2.6	(0.8)
Unknown causes <sup>4</sup>	NA	NA	6.9	(0.9)	8.1	(1.0)	8.8	(2.1)
Total	100.0	100.0	100.0		100.0		100.0	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

<sup>3</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>4</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

**3. Cause of loss by size of operation—2010**

The percentage of losses on beef operations due to calving problems decreased as the size of the operation increased, ranging from 16.7 percent on operations with fewer than 50 cows to 8.5 percent on operations with 500 or more cows. Loss due to weather-related causes ranged from 11.9 percent of losses on operations with fewer than 50 cows to 17.3 percent of losses on operations with 50 to 99 cows.

a. For **beef** operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator cause	Percent Nonpredator Loss							
	Size of Operation (number of cows)							
	1–49		50–99		100–499		500 or more	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	7.1	(1.6)	6.3	(0.9)	6.1	(0.6)	6.1	(1.3)
Respiratory problems (pneumonia, shipping fever, etc.)	10.2	(1.3)	11.2	(1.6)	18.3	(1.2)	38.0	(10.0)
Metabolic problems (milk fever, grass tetany, etc.)	1.2	(0.5)	1.1	(0.3)	1.0	(0.2)	0.9	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	11.9	(1.4)	17.3	(2.7)	16.6	(1.5)	15.6	(2.8)
Theft (stolen)	0.6	(0.2)	0.7	(0.4)	0.8	(0.4)	0.8	(0.4)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.7	(0.4)	2.4	(0.6)	2.9	(0.8)	2.5	(0.5)
Calving problems	16.7	(1.3)	13.3	(1.3)	9.0	(0.6)	8.5	(1.9)
Mastitis	0.4	(0.1)	0.2	(0.1)	0.3	(0.1)	0.4	(0.2)
Lameness/injury	5.0	(0.6)	2.9	(0.4)	3.3	(0.3)	3.5	(0.9)
Other diseases	6.7	(0.9)	6.2	(1.0)	4.7	(0.6)	2.3	(0.5)
Other	20.3	(1.4)	26.2	(2.0)	21.5	(1.5)	10.0	(2.0)
Unknown	18.2	(1.7)	12.2	(1.2)	15.5	(1.1)	11.4	(2.1)
Total	100.0		100.0		100.0		100.0	

Mastitis accounted for a lower percentage of losses on dairy operations with 1 to 29 cows than on all other operation sizes.

b. For **dairy** operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator cause	Percent Nonpredator Loss					
	Size of Operation (number of cows)					
	1–29	30–49	50–99	100–199	200–499	500 or more
	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	7.5 (2.9)	16.2 (3.3)	11.5 (1.9)	8.3 (0.9)	11.7 (1.8)	12.8 (0.5)
Respiratory problems (pneumonia, shipping fever, etc.)	18.8 (9.1)	14.8 (2.3)	14.1 (1.4)	13.7 (1.3)	11.6 (1.1)	18.6 (0.7)
Metabolic problems (milk fever, grass tetany, etc.)	3.8 (2.2)	7.3 (2.1)	7.4 (1.0)	9.3 (1.5)	5.0 (0.6)	7.6 (0.4)
Weather-related causes (chilling, drowning, lightning, etc.)	1.8 (1.3)	2.8 (1.0)	1.8 (0.4)	2.3 (0.4)	2.1 (0.4)	2.1 (0.3)
Theft (stolen)	0.0 (—)	0.0 (—)	0.1 (0.0)	0.0 (0.0)	0.1 (0.0)	0.1 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.3 (0.3)	0.7 (0.4)	2.5 (1.4)	0.9 (0.7)	0.5 (0.2)	0.1 (0.1)
Calving problems	15.4 (6.5)	11.7 (2.0)	12.5 (1.3)	13.0 (1.3)	14.4 (3.5)	9.3 (0.5)
Mastitis	1.8 (1.3)	8.8 (1.8)	8.9 (1.1)	13.9 (1.4)	14.3 (1.4)	14.7 (0.6)
Lameness/injury	7.7 (2.8)	18.3 (2.3)	15.7 (1.6)	14.9 (1.1)	11.9 (1.2)	12.9 (0.5)
Other diseases	3.5 (2.7)	4.8 (1.3)	6.8 (1.2)	7.4 (1.2)	7.1 (1.3)	5.5 (0.4)
Other	26.3 (14.7)	7.3 (1.6)	11.9 (3.7)	10.2 (1.4)	7.6 (1.3)	8.7 (1.3)
Unknown	13.1 (6.4)	7.3 (1.6)	6.8 (1.1)	6.1 (0.9)	13.7 (3.4)	7.6 (0.6)
Total	100.0	100.0	100.0	100.0	100.0	100.0

One-fifth of losses on mixed operations with 1 to 99 cows (22.4 percent) were due to “other” causes, while only 1.7 percent of losses on operations with 500 or more cows were due to “other” causes.

c. For **mixed** operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator cause	Percent Nonpredator Loss					
	Size of Operation (number of cows)					
	1–99		100–499		500 or more	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	7.7	(2.6)	12.9	(2.4)	19.8	(4.5)
Respiratory problems (pneumonia, shipping fever, etc.)	15.4	(4.6)	17.2	(3.0)	17.8	(2.2)
Metabolic problems (milk fever, grass tetany, etc.)	2.8	(1.2)	3.2	(0.8)	9.5	(2.4)
Weather-related causes (chilling, drowning, lightning, etc.)	9.4	(3.4)	6.8	(1.3)	1.4	(0.3)
Theft (stolen)	0.0	(—)	0.0	(—)	0.5	(0.5)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8	(0.6)	0.5	(0.3)	0.3	(0.2)
Calving problems	6.3	(2.1)	11.5	(1.6)	12.1	(3.1)
Mastitis	7.0	(2.5)	6.1	(0.9)	12.6	(2.1)
Lameness/injury	14.7	(4.7)	14.1	(2.7)	10.5	(1.7)
Other diseases (mastitis, etc.)	4.1	(2.9)	3.0	(1.1)	8.5	(3.6)
Other	22.4	(5.9)	14.0	(2.4)	1.7	(0.7)
Unknown	9.4	(2.8)	10.7	(2.4)	5.3	(2.6)
Total	100.0		100.0		100.0	

Respiratory problems accounted for the majority of losses on “other” operations. Operations with 1 to 99 head had a smaller percentage of losses due to respiratory problems compared with all other operation sizes.

d. For **other** operations, percentage of cattle death loss by cause and by size of operation:

Nonpredator cause	Percent Nonpredator Loss							
	Size of Operation (number of cattle and calves)							
	1–99		100–499		500–999		1,000 or more	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	14.8	(5.6)	5.6	(1.6)	8.0	(1.9)	9.3	(1.2)
Respiratory problems (pneumonia, shipping fever, etc.)	31.6	(4.6)	77.0	(5.6)	75.7	(4.5)	68.2	(3.0)
Metabolic problems (milk fever, grass tetany, etc.)	0.9	(0.6)	0.3	(0.2)	0.3	(0.2)	0.1	(0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	14.7	(5.1)	4.2	(1.8)	6.1	(2.7)	7.2	(2.3)
Theft (stolen)	0.5	(0.3)	0.0	(—)	0.2	(0.1)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1	(0.0)	0.6	(0.4)	0.3	(0.3)	0.1	(0.1)
Calving problems	6.4	(2.3)	0.2	(0.1)	1.4	(0.9)	0.1	(0.0)
Mastitis	0.3	(0.1)	0.0	(—)	0.1	(0.1)	0.1	(0.0)
Lameness/injury	2.1	(0.7)	2.9	(1.1)	2.3	(0.5)	2.2	(0.4)
Other diseases	3.6	(1.5)	3.1	(1.3)	1.4	(0.5)	2.6	(0.5)
Other	13.0	(4.3)	1.5	(0.8)	0.5	(0.2)	0.6	(0.5)
Unknown	12.0	(2.5)	4.6	(1.5)	3.7	(1.2)	9.5	(3.2)
Total	100.0		100.0		100.0		100.0	



#### 4. Cause of loss by region—2010

On beef operations, the percentage of losses due to respiratory problems ranged from 7.7 percent in the Southeast region to 25.9 percent in the North Central region. The percentage of losses due to weather-related causes ranged from 8.5 percent in the Northwest region to 21.0 percent in the North Central region.

a. For **beef** operations, percentage of cattle death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	8.8 (0.9)	9.4 (1.1)	6.6 (1.0)	5.2 (1.3)	4.9 (0.8)	10.8 (1.8)
Respiratory problems (pneumonia, shipping fever, etc.)	25.9 (2.1)	12.0 (1.3)	16.4 (1.3)	15.1 (3.3)	7.7 (1.0)	22.5 (3.4)
Metabolic problems (milk fever, grass tetany, etc.)	0.9 (0.3)	2.1 (0.5)	1.3 (0.3)	0.9 (0.4)	1.3 (0.3)	0.9 (0.3)
Weather-related causes (chilling, drowning, lightning, etc.)	21.0 (1.7)	12.9 (1.4)	8.5 (0.9)	14.2 (1.8)	14.1 (1.3)	14.8 (1.6)
Theft (stolen)	0.3 (0.2)	0.2 (0.1)	0.8 (0.2)	0.8 (0.3)	0.6 (0.2)	1.7 (0.6)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	2.2 (1.1)	2.1 (0.6)	4.3 (0.5)	1.8 (0.5)	2.1 (0.6)	4.7 (0.9)
Calving problems	7.7 (0.9)	14.3 (1.3)	9.2 (0.9)	13.7 (1.3)	18.5 (1.2)	6.7 (1.0)
Mastitis	0.2 (0.1)	0.7 (0.2)	0.7 (0.3)	0.2 (0.1)	0.4 (0.2)	0.2 (0.1)
Lameness/injury	4.4 (0.7)	5.7 (0.7)	6.7 (1.1)	3.0 (0.5)	4.2 (0.6)	3.4 (0.6)
Other diseases	3.7 (0.5)	3.9 (0.7)	5.6 (0.8)	6.8 (0.9)	5.0 (0.8)	3.2 (0.7)
Other	16.5 (1.5)	22.5 (2.0)	20.2 (1.8)	20.3 (1.6)	26.9 (1.6)	17.2 (2.3)
Unknown	8.4 (0.8)	14.2 (1.4)	19.7 (1.4)	18.0 (1.7)	14.3 (1.3)	13.9 (1.5)
Total	100.0	100.0	100.0	100.0	100.0	100.0

On dairy operations, the percentage of losses due to mastitis was relatively consistent across regions.

b. For **dairy** operations, percentage of cattle death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	14.4 (1.6)	11.3 (0.8)	16.7 (1.8)	12.8 (2.3)	12.4 (1.2)	9.6 (0.8)
Respiratory problems (pneumonia, shipping fever, etc.)	16.4 (1.3)	13.6 (0.7)	19.6 (1.6)	17.6 (2.8)	18.0 (1.9)	18.8 (1.2)
Metabolic problems (milk fever, grass tetany, etc.)	7.8 (1.1)	8.7 (0.6)	8.4 (1.4)	4.8 (0.7)	9.2 (1.7)	5.1 (0.5)
Weather-related causes (chilling, drowning, lightning, etc.)	1.9 (0.4)	1.7 (0.3)	1.5 (0.4)	3.5 (0.9)	6.6 (1.5)	1.9 (0.3)
Theft (stolen)	0.0 (—)	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)	0.3 (0.1)	0.0 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8 (0.6)	1.1 (0.5)	0.6 (0.4)	0.1 (0.1)	0.4 (0.3)	0.0 (0.0)
Calving problems	11.9 (1.4)	11.7 (0.6)	7.4 (1.0)	11.0 (2.2)	14.7 (1.8)	10.9 (1.9)
Mastitis	10.7 (1.1)	13.2 (0.7)	13.1 (1.2)	10.7 (1.5)	13.9 (1.5)	15.0 (1.2)
Lameness/injury	11.7 (1.5)	16.6 (0.7)	12.3 (1.3)	8.3 (1.2)	10.5 (1.3)	12.2 (0.9)
Other diseases	6.1 (1.1)	6.1 (0.6)	6.2 (1.1)	6.0 (1.0)	3.4 (0.9)	6.2 (0.8)
Other	11.9 (3.9)	7.7 (1.3)	9.2 (1.5)	14.7 (3.9)	6.7 (1.3)	10.0 (2.4)
Unknown	6.4 (1.1)	8.3 (1.2)	5.0 (0.9)	10.3 (2.4)	3.9 (0.9)	10.3 (1.1)
Total	100.0	100.0	100.0	100.0	100.0	100.0

On mixed operations, metabolic problems such as milk fever or grass tetany accounted for 23.7 percent of losses in the Southwest region and 2.3 percent of losses in the Northwest region.

c. For **mixed** operations, percentage of cattle death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	15.6 (4.0)	9.8 (1.8)	4.5 (1.8)	25.6 (6.3)	6.9 (1.7)	14.0 (4.3)
Respiratory problems (pneumonia, shipping fever, etc.)	23.0 (6.2)	17.8 (3.2)	10.7 (3.9)	18.1 (3.1)	8.8 (2.2)	16.1 (3.5)
Metabolic problems (milk fever, grass tetany, etc.)	2.6 (1.2)	6.1 (1.6)	2.3 (0.9)	3.0 (1.4)	5.0 (1.7)	23.7 (7.0)
Weather-related causes (chilling, drowning, lightning, etc.)	3.5 (1.7)	4.2 (1.3)	11.1 (6.7)	4.9 (1.3)	11.0 (4.1)	0.8 (0.5)
Theft (stolen)	0.0 (—)	0.0 (—)	0.0 (—)	0.0 (—)	0.0 (—)	2.7 (2.5)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.7 (0.7)	0.7 (0.4)	0.4 (0.4)	0.1 (0.1)	0.2 (0.2)	1.1 (1.0)
Calving problems	6.4 (1.7)	13.1 (2.2)	12.4 (4.6)	10.6 (4.2)	10.7 (2.5)	8.8 (3.2)
Mastitis	4.2 (1.6)	10.2 (2.0)	8.6 (3.6)	9.9 (2.6)	8.6 (2.4)	8.8 (1.8)
Lameness/injury	20.6 (5.8)	16.0 (3.2)	14.1 (3.3)	4.9 (1.4)	10.2 (2.2)	11.7 (2.3)
Other diseases	0.4 (0.2)	1.6 (0.7)	25.7 (12.6)	4.8 (2.0)	9.5 (4.7)	5.1 (1.9)
Other	14.9 (4.3)	11.2 (3.1)	4.1 (2.0)	7.9 (2.1)	20.5 (8.2)	6.1 (3.0)
Unknown	8.1 (3.1)	9.3 (2.7)	6.1 (3.1)	10.2 (3.9)	8.6 (4.9)	1.1 (0.6)
Total	100.0	100.0	100.0	100.0	100.0	100.0

Across all regions, respiratory problems accounted for the highest percentage of nonpredator losses on “other” operations, ranging from 39.8 percent in the Northwest region to 74.7 percent in the South Central region.

d. For **other** operations, percentage of cattle death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss					
	Region					
	North Central	Northeast	Northwest	South Central	Southeast	Southwest
	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error	Std. Pct. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	11.2 (1.4)	9.0 (2.8)	7.0 (2.2)	6.5 (2.6)	1.3 (1.0)	17.6 (1.9)
Respiratory problems (pneumonia, shipping fever, etc.)	58.2 (4.4)	68.1 (9.1)	39.8 (9.4)	74.7 (3.8)	57.0 (13.4)	50.0 (4.7)
Metabolic problems (milk fever, grass tetany, etc.)	0.2 (0.1)	0.8 (0.4)	0.0 (0.0)	0.0 (0.0)	5.7 (5.5)	0.0 (—)
Weather-related causes (chilling, drowning, lightning, etc.)	8.2 (1.6)	4.6 (3.4)	4.0 (3.0)	11.2 (3.6)	2.8 (2.8)	1.2 (0.8)
Theft (stolen)	0.0 (0.0)	0.3 (0.3)	0.0 (—)	0.0 (0.0)	0.0 (—)	0.3 (0.3)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1 (0.1)	0.3 (0.2)	1.8 (1.6)	0.1 (0.1)	0.0 (—)	0.1 (0.0)
Calving problems	0.7 (0.3)	1.8 (0.8)	2.2 (1.6)	1.0 (0.5)	20.1 (14.8)	0.1 (0.0)
Mastitis	0.2 (0.1)	0.2 (0.1)	0.0 (—)	0.0 (0.0)	0.0 (—)	0.0 (—)
Lameness/injury	3.5 (0.6)	3.5 (1.2)	3.0 (1.1)	0.9 (0.4)	0.0 (0.0)	2.9 (0.5)
Other diseases	2.4 (0.6)	3.7 (1.4)	4.6 (1.5)	1.4 (0.6)	1.0 (0.6)	6.7 (2.0)
Other	1.7 (0.6)	3.0 (1.3)	26.4 (15.4)	2.0 (0.9)	5.0 (2.8)	0.4 (0.2)
Unknown	13.6 (6.1)	4.7 (1.8)	11.2 (5.4)	2.2 (0.7)	7.1 (4.6)	20.7 (4.3)
Total	100.0	100.0	100.0	100.0	100.0	100.0

## C. Nonpredator Calf Death Loss

### 1. Losses as a percentage of calf crop—2010

Overall, 5.8 percent of the calf crop was lost to nonpredator causes. Losses were highest in the Northeast region (7.6 percent of calf crop) and lowest in the Northwest and Southeast regions (4.2 and 4.4 percent, respectively).

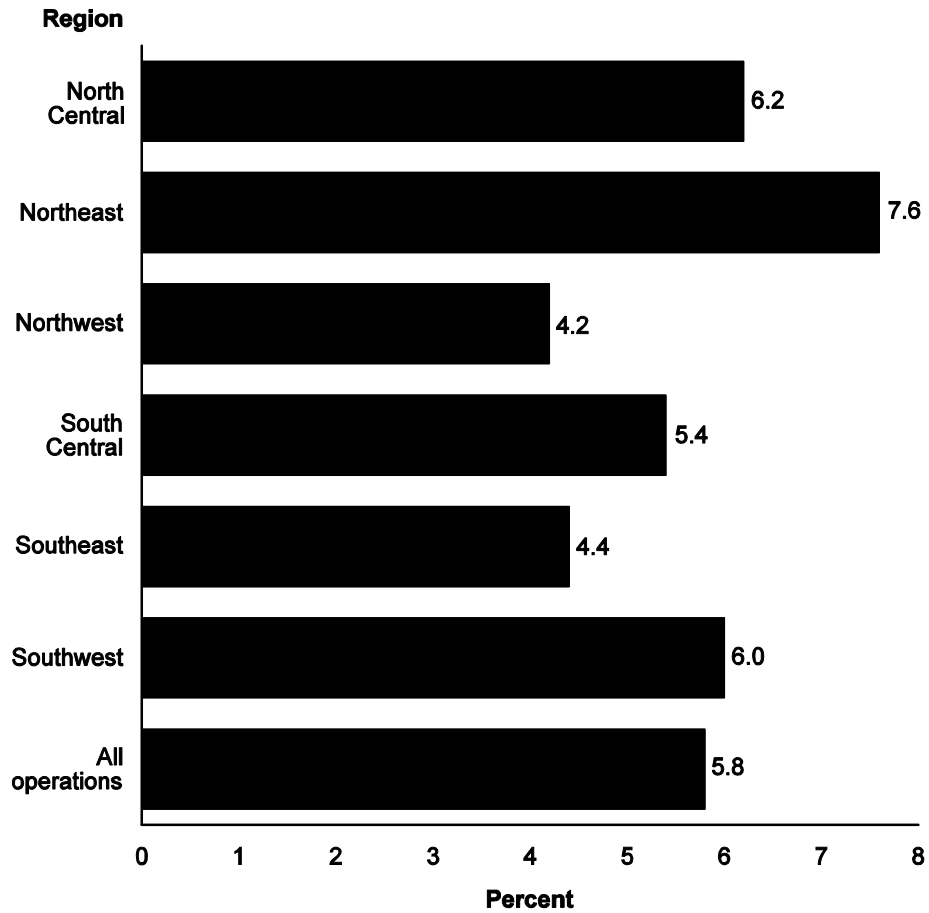
a. Percentage of calf crop lost, \* by region:

Region	Percent Calf Crop*	
	Percent	Std. error
North Central	6.2	(0.1)
Northeast	7.6	(0.2)
Northwest	4.2	(0.2)
South Central	5.4	(0.5)
Southeast	4.4	(0.1)
Southwest	6.0	(0.4)
All operations	5.8	(0.2)

\*Calf deaths due to nonpredator causes in 2010 divided by 2010 calf crop x 100.

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**Percentage of calf crop lost,\* by region**



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\*Calf deaths due to nonpredator causes in 2010 divided by 2010 calf crop x 100

On beef operations, 4.6 percent of the calf crop was lost to nonpredator causes in 2010. Losses were lowest on operations with 500 or more cows (3.0 percent of calf crop).

b. For **beef** operations, percentage of calf crop lost,\* by region and by size of operation:

Region	Percent Calf Crop									
	Size of Operation (number of cows)									
	1-49		50-99		100-499		500 or more		All operations	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
North Central	7.3	(0.5)	5.6	(0.4)	4.8	(0.2)	4.1	(0.2)	5.2	(0.1)
Northeast	6.3	(0.3)	6.1	(0.4)	5.3	(0.4)	3.8	(0.7)	6.0	(0.2)
Northwest	4.9	(0.5)	4.1	(0.4)	3.8	(0.2)	3.4	(0.1)	3.8	(0.1)
South Central	5.7	(0.3)	4.6	(0.2)	3.8	(0.2)	2.2	(0.3)	4.4	(0.1)
Southeast	4.8	(0.3)	4.0	(0.3)	3.2	(0.2)	1.9	(0.2)	3.9	(0.1)
Southwest	6.8	(0.8)	4.4	(0.6)	4.5	(0.6)	3.0	(0.2)	4.4	(0.3)
All Operations	5.8	(0.2)	4.9	(0.1)	4.2	(0.1)	3.0	(0.1)	4.6	(0.1)

\*Calf deaths in 2010 divided by 2010 calf crop x 100.

Overall, 7.1 percent of the calf crop on dairy operations was lost to nonpredator causes in 2010. The percentage of calf crop lost varied across regions, ranging from 5.2 percent in the Southwest region to 10.9 percent in the North Central region.

c. For **dairy** operations, percentage of calf crop lost,<sup>1</sup> by region and by size of operation:

<b>Percent Calf Crop</b>														
<b>Size of Operation (number of cows)</b>														
	<b>1–29</b>		<b>30–49</b>		<b>50–99</b>		<b>100–199</b>		<b>200–499</b>		<b>500 or more</b>		<b>All operations</b>	
<b>Region</b>	<b>Pct.</b>	<b>Std. err.</b>	<b>Pct.</b>	<b>Std. err.</b>	<b>Pct.</b>	<b>Std. err.</b>	<b>Pct.</b>	<b>Std. err.</b>	<b>Pct.</b>	<b>Std. err.</b>	<b>Pct.</b>	<b>Std. err.</b>	<b>Pct.</b>	<b>Std. err.</b>
North Central	31.0	(8.9)	13.8	(3.2)	14.0	(1.1)	13.2	(1.4)	11.4	(1.5)	6.0	(0.6)	10.9	(0.6)
Northeast	9.9	(1.9)	9.6	(0.7)	9.7	(0.4)	8.5	(0.6)	6.7	(0.5)	4.5	(0.2)	7.4	(0.2)
Northwest	4.6	(4.0)	<sup>2</sup>		10.8	(1.1)	9.8	(1.2)	7.1	(0.7)	4.4	(0.3)	5.9	(0.7)
South Central	24.9	(12.9)	10.0	(2.6)	11.5	(1.2)	8.5	(0.9)	9.2	(0.9)	6.8	(0.5)	8.6	(0.7)
Southeast	25.0	(14.4)	<sup>2</sup>		9.5	(2.0)	6.8	(0.9)	7.5	(0.8)	5.5	(0.4)	6.7	(0.5)
Southwest	33.3	(23.3)	<sup>2</sup>		12.1	(2.9)	8.3	(1.3)	7.7	(0.6)	5.0	(0.2)	5.2	(0.2)
All Operations	14.6	(2.6)	11.8	(1.3)	10.5	(0.4)	9.1	(0.5)	7.5	(0.3)	5.0	(0.1)	7.1	(0.1)

<sup>1</sup>Calf deaths in 2010 divided by 2010 calf crop x 100.

<sup>2</sup>Too few operations to report.



Overall, 7.4 percent of the calf crop on mixed operations was lost to nonpredator causes.

d. For **mixed** operations, percentage of calf crop lost,<sup>1</sup> by region and by size of operation:

<b>Percent Calf Crop</b>								
<b>Size of Operation (number of cows)</b>								
<b>Region</b>	<b>1-99</b>		<b>100-499</b>		<b>500 or more</b>		<b>All operations</b>	
	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>
North Central	11.9	(1.3)	9.0	(1.5)	7.5	(1.9)	9.7	(1.1)
Northeast	12.4	(1.7)	6.0	(0.6)	5.9	(1.2)	7.7	(0.7)
Northwest	9.6	(1.6)	7.2	(1.8)	6.3	(1.3)	6.8	(0.9)
South Central	9.8	(3.4)	7.9	(0.8)	3.6	(0.8)	5.9	(0.8)
Southeast	11.3	(3.9)	6.1	(1.3)	3.7	(0.4)	6.5	(1.1)
Southwest	<sup>2</sup>		12.1	(2.2)	5.3	(1.3)	6.8	(1.4)
All operations	11.8	(1.1)	7.5	(0.5)	4.9	(0.5)	7.4	(0.4)

<sup>1</sup> Calf deaths in 2010 divided by 2010 calf crop x 100.

<sup>2</sup> Too few operations to report.

Note: Very few calves were born on “other” operations. Therefore, inventory of calves less than 500 lb was used in place of calf crop.

Overall, 15.8 percent of calf inventory was lost to nonpredator causes on “other” operations. On operations with fewer than 100 head, 22.2 percent of inventory was lost, compared with 8.0 percent of inventory on operations with 500 to 999 head. Regionally, losses ranged from 6.0 percent of calf inventory in the Northwest region to 25.7 percent of inventory in the North Central region.

e. For **other** operations, percentage of **calf inventory** lost,\* by region and by size of operation:

<b>Percent Inventory</b>										
<b>Size of Operation</b> (number of cattle and calves)										
<b>Region</b>	<b>1–99</b>		<b>100–499</b>		<b>500–999</b>		<b>1,000 or more</b>		<b>All operations</b>	
	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>
North Central	44.3	(9.6)	21.0	(7.4)	18.8	(4.1)	18.3	(5.4)	25.7	(3.8)
Northeast	20.2	(4.3)	11.6	(2.2)	10.0	(2.3)	7.9	(1.2)	13.6	(1.8)
Northwest	17.9	(9.6)	14.9	(10.0)	0.9	(0.5)	4.0	(1.6)	6.0	(2.0)
South Central	24.2	(6.2)	8.0	(2.4)	5.9	(1.8)	33.0	(6.5)	21.1	(5.7)
Southeast	18.5	(5.4)	3.9	(1.6)	2.3	(1.0)	16.1	(2.7)	11.1	(2.2)
Southwest	10.5	(5.6)	7.1	(3.4)	7.2	(2.1)	13.1	(3.1)	12.8	(2.9)
All operations	22.2	(2.7)	10.2	(1.4)	8.0	(1.4)	17.6	(4.1)	15.8	(2.2)

\*2010 death loss divided by end-of-year (January 1, 2011) inventory of calves 500 lbs or less x 100.

**2. Cause of loss—1991, 1995, 2000, 2005, and 2010**

The highest percentages of nonpredator calf losses in 2010 were due to respiratory problems (29.1 percent).

a. Percentage of calf death loss, by cause and by year:

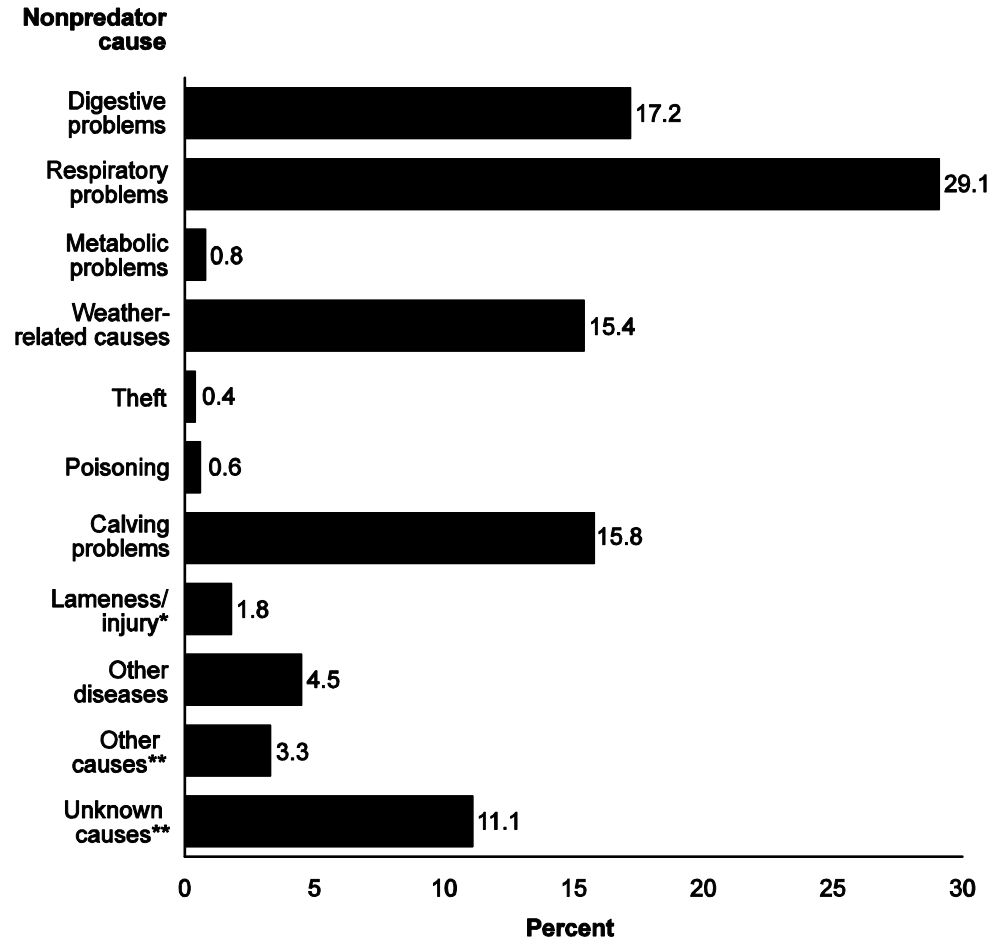
<b>Percent Nonpredator Loss</b>					
<b>Nonpredator cause</b>	<b>1991</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	26.0	25.2	19.8	21.2	17.2
Respiratory problems (pneumonia, shipping fever, etc.)	35.2	29.6	30.0	31.8	29.1
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	0.8	0.8	0.8
Weather-related causes (chilling, drowning, lightning, etc.)	6.2	10.7	10.6	7.6	15.4
Theft (stolen)	0.6	0.4	0.4	0.5	0.4
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8	0.6	0.5	0.7	0.6
Calving problems	13.2	15.1	16.7	17.7	15.8
Lameness/injury <sup>1</sup>	NA	NA	NA	1.9	1.8
Other diseases	NA	NA	3.2	3.5	4.5
Other causes <sup>2</sup>	18.0	18.4	3.2	2.8	3.3
Unknown causes <sup>2</sup>	NA	NA	14.8	11.5	11.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup>Lameness/injury included with "other" causes in 1991, 1995, and 2000.

<sup>2</sup>Other causes and unknown causes combined in 1991 and 1995.

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**Percentage of 2010 calf death losses, by cause**



On beef operations in 2010, the most common causes of calf losses were respiratory problems, weather-related causes, and calving problems (21.9, 21.9, and 20.9 percent of losses, respectively). Note the high level of weather-related losses compared with previous years.

b. For **beef** operations, percentage of calf death loss by cause and by year:

Nonpredator cause	Percent Nonpredator Loss							
	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	19.2	17.4	13.8	(0.5)	13.0	(0.5)	10.4	(0.5)
Respiratory problems (pneumonia, shipping fever, etc.)	25.6	23.5	23.2	(0.7)	27.7	(0.8)	21.9	(0.6)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	0.7	(0.1)	0.6	(0.1)	0.4	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	10.8	14.7	13.5	(0.5)	10.2	(0.5)	21.9	(0.8)
Theft (stolen)	1.0	0.4	0.6	(0.1)	0.7	(0.2)	0.6	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.2	0.8	0.7	(0.1)	0.9	(0.1)	0.8	(0.2)
Calving problems	20.4	20.4	23.5	(0.6)	24.2	(0.7)	20.9	(0.6)
Lameness/injury <sup>2</sup>	NA	NA	NA	(--)	1.7	(0.2)	1.9	(0.2)
Other diseases <sup>3</sup>	NA	NA	2.1	(0.3)	3.5	(0.3)	3.1	(0.3)
Other causes <sup>3</sup>	21.8	22.8	3.5	(0.3)	3.5	(0.3)	3.9	(0.4)
Unknown causes <sup>3</sup>	NA	NA	18.4	(0.6)	14.0	(0.5)	14.2	(0.6)
Total	100.0	100.0	100.0		100.0		100.0	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>3</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

On dairy operations in 2010, digestive and respiratory problems were the most common causes of calf loss (30.6 and 36.7 percent of losses, respectively).

c. For **dairy** operations, percentage of calf death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	36.6	40.5	35.4	(1.4)	35.8	(1.0)	30.6	(0.9)
Respiratory problems (pneumonia, shipping fever, etc.)	33.0	35.3	30.7	(1.3)	33.2	(0.9)	36.7	(0.9)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	1.1	(0.1)	1.5	(0.4)	1.7	(0.4)
Weather-related causes (chilling, drowning, lightning, etc.)	2.5	3.9	6.8	(3.2)	2.2	(0.2)	4.2	(0.5)
Theft (stolen)	0.2	0.1	0.1	(0.0)	0.1	(0.0)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.5	0.2	0.2	(0.0)	0.3	(0.2)	0.2	(0.1)
Calving problems	10.6	8.3	9.8	(0.6)	10.4	(0.6)	10.2	(0.6)
Lameness/injury <sup>2</sup>	NA	NA	NA	(--)	1.5	(0.2)	2.2	(0.2)
Other diseases <sup>3</sup>	NA	NA	2.5	(0.3)	4.4	(0.7)	5.6	(0.7)
Other causes <sup>3</sup>	16.6	11.7	3.1	(0.9)	2.0	(0.7)	2.2	(0.5)
Unknown causes <sup>3</sup>	NA	NA	10.3	(0.6)	8.6	(0.6)	6.4	(0.5)
Total	100.0	100.0	100.0		100.0		100.0	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>3</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

On mixed operations in 2010, digestive and respiratory problems were the most common causes of calf loss (30.4 and 31.5 percent of losses, respectively)

d. For **mixed** operations, percentage of calf death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	37.5	41.3	31.0	(2.1)	28.9	(4.6)	30.4	(2.8)
Respiratory problems (pneumonia, shipping fever, etc.)	34.9	41.5	34.1	(2.0)	30.0	(3.9)	31.5	(2.3)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	1.5	(0.7)	1.2	(0.7)	1.3	(0.6)
Weather-related causes (chilling, drowning, lightning, etc.)	4.1	3.1	6.8	(0.9)	7.1	(4.6)	8.6	(1.6)
Theft (stolen)	0.4	0.0	0.0	(0.0)	0.1	(0.1)	0.1	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.2	0.0	0.0	(0.0)	0.0	(0.0)	0.3	(0.2)
Calving problems	11.3	5.3	10.7	(1.4)	11.8	(1.9)	12.2	(1.8)
Lameness/injury <sup>2</sup>	NA	NA	NA	(--)	3.1	(1.8)	1.8	(0.4)
Other diseases <sup>3</sup>	NA	NA	1.3	(0.5)	3.4	(1.1)	4.0	(1.0)
Other causes <sup>3</sup>	NA	NA	1.8	(0.6)	2.3	(0.9)	2.5	(0.6)
Unknown causes <sup>3</sup>	11.6	8.8	12.8	(2.4)	12.1	(3.4)	7.3	(1.6)
Total	100.0	100.0	100.0		100.0		100.0	

<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Lameness/injury included in "other causes" in 1991, 1995, and 2000.

<sup>3</sup>"Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

On “other” operations, digestive and respiratory problems accounted for the highest percentage of calf losses (23.2 and 49.4 percent of losses, respectively). The percentage of calf losses due to respiratory causes was higher on “other” operations than on beef, dairy, or mixed operations.

e. For **other** operations, percentage of calf death loss by cause and by year:

Percent Nonpredator Loss								
Nonpredator cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. error	2005	Std. error	2010	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	16.0	27.7	15.1	(3.3)	32.5	(5.4)	23.2	(3.4)
Respiratory problems (pneumonia, shipping fever, etc.)	65.9	61.7	56.5	(9.2)	47.1	(3.0)	49.4	(4.9)
Metabolic problems (milk fever, grass tetany, etc.)	NA	NA	0.3	(0.2)	0.8	(0.4)	0.5	(0.3)
Weather-related causes (chilling, drowning, lightning, etc.)	3.1	2.5	5.6	(2.3)	4.5	(1.3)	6.0	(1.1)
Theft (stolen)	0.5	<0.01	0.0	(0.0)	0.2	(0.1)	0.2	(0.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.4	<0.01	0.3	(0.2)	0.8	(0.5)	0.3	(0.2)
Calving problems	0.7	1.8	1.7	(0.5)	1.8	(0.4)	2.5	(0.2)
Lameness/injury <sup>2</sup>	NA	NA	NA	(—)	3.4	(1.5)	0.6	(0.2)
Other diseases <sup>3</sup>	NA	NA	9.9	(5.3)	2.3	(0.7)	9.7	(4.2)
Other causes <sup>3</sup>	13.4	6.3	2.5	(1.2)	1.0	(0.4)	1.9	(0.7)
Unknown causes <sup>3</sup>	NA	NA	8.1	(2.9)	5.6	(1.3)	5.7	(1.6)
Total	100.0	100.0	100.0		100.0		100.0	

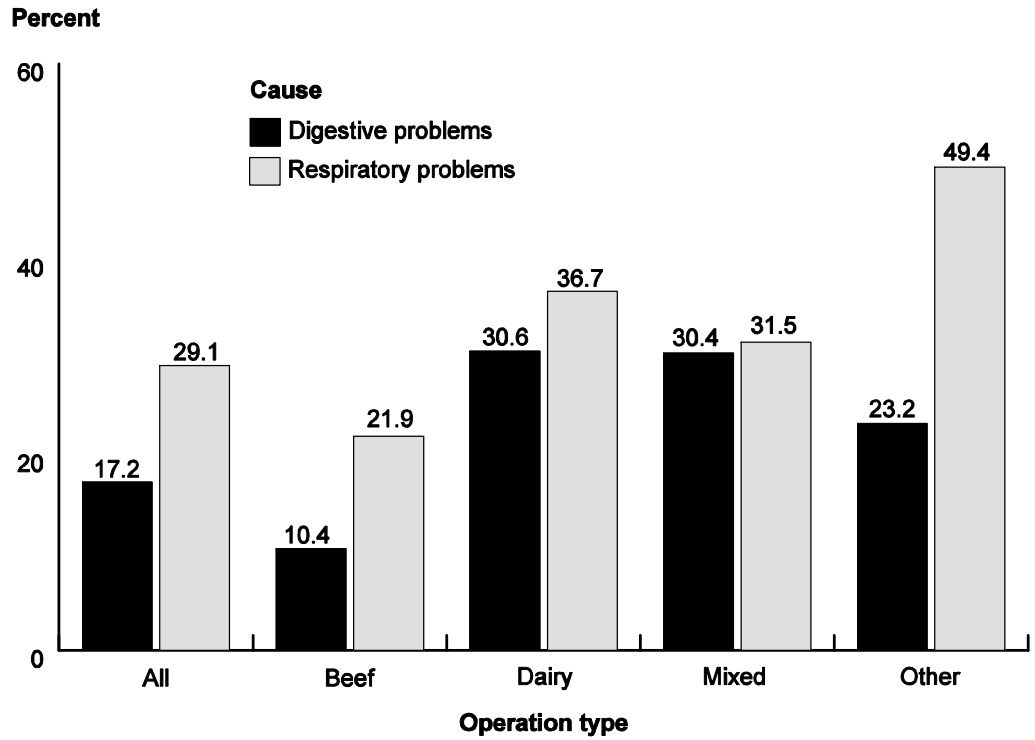
<sup>1</sup>Standard errors not available for 1991 and 1995.

<sup>2</sup>Lameness/injury included in “other causes” in 1991, 1995, and 2000.

<sup>3</sup>“Other diseases” and “unknown causes” included in “other causes” in 1991 and 1995.



**Percentage of 2010 calf death loss, by cause**



**3. Cause of loss by size of operation—2010**

For beef operations, operations with 1 to 49 cows lost a lower percentage of their calf crop to respiratory problems and a higher percentage due to calving problems than did operations with 50 or more cows.

a. For **beef** operations, percentage of calf death loss by cause and by size of operation:

Nonpredator cause	Percent Nonpredator Loss							
	Size of Operation (number of cows)							
	1–49		50–99		100–499		500 or more	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	8.3	(0.9)	10.6	(0.9)	12.0	(0.7)	11.7	(1.5)
Respiratory problems (pneumonia, shipping fever, etc.)	15.8	(1.1)	23.0	(1.5)	25.9	(1.0)	25.9	(1.6)
Metabolic problems (milk fever, grass tetany, etc.)	0.5	(0.2)	0.4	(0.2)	0.4	(0.1)	0.3	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	18.4	(1.2)	21.2	(1.4)	25.3	(1.4)	22.5	(2.2)
Theft (stolen)	0.4	(0.2)	0.7	(0.2)	0.8	(0.3)	0.6	(0.3)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.7	(0.2)	1.2	(0.4)	0.9	(0.6)	0.4	(0.1)
Calving problems	24.6	(1.1)	19.9	(1.2)	18.4	(0.9)	19.0	(1.4)
Lameness/injury	3.2	(0.4)	1.7	(0.3)	0.9	(0.2)	1.1	(0.2)
Other diseases	3.5	(0.5)	3.6	(0.7)	2.7	(0.4)	1.9	(0.4)
Other	5.7	(0.8)	3.1	(0.5)	3.4	(0.6)	1.3	(0.4)
Unknown	18.9	(1.2)	14.6	(1.2)	9.3	(0.9)	15.3	(2.0)
Total	100.0		100.0		100.0		100.0	

The percentages of loss by cause were fairly consistent across operation size for dairy operations.

b. For **dairy** operations, percentage of calf death loss by cause and by size of operation:

<b>Percent Nonpredator Loss</b>						
<b>Size of Operation (number of cows)</b>						
	<b>1–29</b>	<b>30–49</b>	<b>50–99</b>	<b>100–199</b>	<b>200–499</b>	<b>500 or more</b>
<b>Cause</b>	<b>Std. Pct. error</b>	<b>Std. Pct. error</b>	<b>Std. Pct. error</b>	<b>Std. Pct. error</b>	<b>Std. Pct. error</b>	<b>Std. Pct. error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	33.6 (7.1)	37.7 (3.1)	33.3 (2.0)	35.5 (2.4)	36.7 (3.7)	23.2 (0.8)
Respiratory problems (pneumonia, shipping fever, etc.)	27.6 (9.0)	34.3 (3.7)	37.6 (2.1)	36.8 (2.5)	30.3 (2.1)	40.1 (1.0)
Metabolic problems (milk fever, grass tetany, etc.)	0.5 (0.4)	1.4 (0.9)	0.8 (0.3)	1.1 (0.5)	4.0 (2.2)	1.7 (0.3)
Weather-related causes (chilling, drowning, lightning, etc.)	11.8 (8.1)	3.9 (1.2)	3.4 (0.7)	3.2 (0.6)	4.6 (1.7)	4.2 (0.5)
Theft (stolen)	0.0 (—)	0.0 (—)	0.0 (—)	0.0 (—)	0.2 (0.1)	0.0 (0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0 (—)	0.8 (0.7)	0.5 (0.4)	0.0 (0.0)	0.1 (0.1)	0.2 (0.1)
Calving problems	6.3 (1.9)	11.1 (2.6)	12.4 (1.3)	8.3 (1.3)	8.9 (1.4)	10.6 (0.9)
Lameness/injury	1.2 (0.8)	3.1 (0.9)	1.5 (0.4)	1.5 (0.4)	2.1 (0.6)	2.6 (0.3)
Other diseases	1.2 (0.6)	2.3 (0.9)	3.9 (0.8)	8.4 (3.4)	4.6 (1.4)	6.8 (0.7)
Other	6.7 (4.0)	0.3 (0.2)	3.2 (1.2)	1.1 (0.3)	3.7 (2.1)	1.6 (0.5)
Unknown	11.1 (4.9)	5.1 (1.3)	3.4 (0.6)	4.1 (0.7)	4.8 (0.9)	9.0 (0.9)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

On mixed operations, digestive problems and respiratory problems accounted for at least 60 percent of calf losses across all operation sizes.

c. For **mixed** operations, percentage of calf death loss by cause and by size of operation

<b>Percent Nonpredator Loss</b>						
<b>Size of Operation (number of cows)</b>						
	<b>1–99</b>		<b>100–499</b>		<b>500 or more</b>	
<b>Nonpredator cause</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	34.2	(6.7)	29.7	(3.6)	27.3	(4.3)
Respiratory problems (pneumonia, shipping fever, etc.)	27.9	(5.1)	33.2	(3.0)	32.8	(4.5)
Metabolic problems (milk fever, grass tetany, etc.)	0.6	(0.4)	0.3	(0.2)	4.3	(2.2)
Weather-related causes (chilling, drowning, lightning, etc.)	7.9	(3.1)	12.5	(2.7)	2.0	(0.6)
Theft (stolen)	0.0	(—)	0.2	(0.2)	0.0	(—)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.4	(0.4)	0.3	(0.3)	0.0	(—)
Calving problems	14.9	(3.8)	9.7	(1.6)	13.6	(4.8)
Lameness/injury	0.6	(0.4)	1.7	(0.6)	3.3	(0.9)
Other diseases	3.1	(1.8)	3.6	(1.0)	5.9	(3.0)
Other	3.1	(1.2)	3.1	(1.1)	0.3	(0.0)
Unknown	7.3	(2.8)	5.7	(1.9)	10.5	(4.1)
<b>Total</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

“Other” operations with 1 to 99 cows had a higher percentage of calf losses due to unknown causes and calving problems (11.3 and 8.6 percent, respectively) than did operations with 1,000 or more cows (2.4 and 0.1 percent, respectively).

d. For **other** operations, percentage of calf death loss by cause and by size of operation:

<b>Percent Nonpredator Loss</b>								
<b>Size of Operation</b> (number of cattle and calves)								
	<b>1–99</b>		<b>100–499</b>		<b>500–999</b>		<b>1,000 or more</b>	
<b>Nonpredator cause</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>	<b>Pct.</b>	<b>Std. error</b>
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	18.9	(2.8)	12.4	(2.5)	14.5	(4.1)	28.9	(5.2)
Respiratory problems (pneumonia, shipping fever, etc.)	40.5	(5.6)	59.8	(6.4)	68.6	(6.6)	49.2	(8.5)
Metabolic problems (milk fever, grass tetany, etc.)	1.3	(0.9)	0.0	(0.0)	1.2	(1.1)	0.2	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	10.1	(2.6)	2.1	(0.9)	8.7	(4.0)	4.7	(2.0)
Theft (stolen)	0.6	(0.6)	0.0	(—)	0.0	(—)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1	(0.1)	1.3	(1.2)	0.0	(—)	0.1	(0.1)
Calving problems	8.6	(2.4)	1.3	(0.7)	0.0	(—)	0.1	(0.1)
Lameness/injury	1.4	(0.6)	0.6	(0.2)	0.9	(0.4)	0.3	(0.1)
Other diseases	3.9	(1.6)	9.7	(5.4)	0.5	(0.3)	13.5	(6.3)
Other	3.3	(1.4)	5.0	(3.4)	0.2	(0.2)	0.6	(0.3)
Unknown	11.3	(2.6)	7.8	(4.8)	5.4	(3.1)	2.4	(1.1)
<b>Total</b>	<b>100.0</b>		<b>100.0</b>		<b>100.0</b>		<b>100.0</b>	

#### 4. Cause of loss by region—2010

On beef operations, the percentage of calf losses due to unknown causes ranged from 6.2 percent in the North Central region to 18.7 percent in the South Central region.

a. For **beef** operations, percentage of calf death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss											
	Region											
	North Central		Northeast		Northwest		South Central		Southeast		Southwest	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	14.5	(1.1)	13.3	(1.6)	15.1	(1.0)	5.4	(0.5)	7.5	(1.0)	14.9	(2.0)
Respiratory problems (pneumonia, shipping fever, etc.)	24.3	(1.2)	16.6	(1.2)	19.4	(1.1)	24.3	(1.3)	15.9	(1.3)	25.2	(1.9)
Metabolic problems (milk fever, grass tetany, etc.)	0.4	(0.1)	0.4	(0.2)	0.3	(0.2)	0.5	(0.2)	0.4	(0.2)	0.5	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	27.8	(1.4)	25.2	(2.1)	21.3	(1.5)	20.0	(1.6)	14.6	(1.5)	19.2	(1.9)
Theft (stolen)	0.0	(0.0)	0.3	(0.2)	1.1	(0.7)	0.6	(0.2)	0.6	(0.3)	2.0	(1.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.5	(0.2)	0.4	(0.1)	0.7	(0.4)	1.1	(0.7)	1.0	(0.4)	1.4	(0.5)
Calving problems	21.5	(1.1)	18.2	(1.3)	23.8	(1.4)	19.5	(1.1)	30.2	(1.9)	13.2	(1.4)
Lameness/injury	1.0	(0.2)	2.4	(0.5)	1.0	(0.2)	2.3	(0.4)	2.5	(0.5)	1.6	(0.8)
Other diseases	1.7	(0.4)	3.3	(0.6)	2.6	(0.3)	3.3	(0.6)	4.7	(1.1)	3.5	(1.0)
Other	2.1	(0.5)	6.9	(1.5)	2.2	(0.5)	4.3	(0.6)	4.5	(0.7)	3.7	(1.0)
Unknown	6.2	(0.7)	13.0	(1.2)	12.5	(1.2)	18.7	(1.4)	18.1	(1.5)	14.8	(1.9)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

For dairy operations, the Southwest region had a lower percentage of losses due to digestive problems than all other regions.

b. For **dairy** operations, percentage of calf death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss											
	Region											
	North Central		Northeast		Northwest		South Central		Southeast		Southwest	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	36.2	(2.3)	37.8	(1.4)	25.2	(1.7)	26.1	(3.1)	26.5	(4.1)	14.5	(1.1)
Respiratory problems (pneumonia, shipping fever, etc.)	34.0	(2.1)	34.8	(1.3)	38.3	(2.7)	36.1	(5.0)	25.5	(2.6)	44.3	(1.7)
Metabolic problems (milk fever, grass tetany, etc.)	1.4	(0.4)	1.2	(0.2)	2.5	(1.1)	0.7	(0.4)	3.4	(2.0)	2.9	(1.6)
Weather-related causes (chilling, drowning, lightning, etc.)	3.6	(0.9)	2.9	(0.4)	3.1	(0.6)	11.5	(5.1)	10.0	(2.7)	4.9	(1.3)
Theft (stolen)	0.0	(0.0)	0.0	(0.0)	0.0	(—)	0.1	(0.1)	0.0	(—)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.5	(0.5)	0.2	(0.1)	0.0	(0.0)	0.1	(0.1)	0.4	(0.3)	0.2	(0.1)
Calving problems	12.5	(1.5)	8.8	(0.8)	14.3	(2.8)	10.1	(2.9)	10.0	(2.2)	10.0	(1.2)
Lameness/injury	1.7	(0.5)	2.1	(0.3)	4.0	(0.8)	1.3	(0.5)	1.8	(0.5)	2.2	(0.3)
Other diseases	3.2	(1.0)	5.4	(1.3)	4.9	(1.0)	4.4	(1.3)	9.2	(2.3)	7.9	(1.2)
Other	2.5	(1.2)	2.2	(0.8)	0.7	(0.3)	2.2	(1.1)	2.3	(1.7)	2.6	(0.9)
Unknown	4.4	(0.9)	4.6	(0.5)	7.0	(1.5)	7.4	(2.0)	10.9	(5.6)	10.5	(1.4)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

On mixed operations, the percentage of losses due to calving problems ranged from 5.0 percent in the Southwest region to 38.4 percent in the Northwest region.

c. For **mixed** operations, percentage of calf death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss											
	Region											
	North Central		Northeast		Northwest		South Central		Southeast		Southwest	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	32.3	(6.0)	35.4	(5.2)	13.9	(5.0)	25.1	(4.1)	28.5	(11.8)	38.1	(8.8)
Respiratory problems (pneumonia, shipping fever, etc.)	36.6	(5.0)	29.1	(4.3)	25.3	(8.0)	39.2	(5.0)	24.2	(5.7)	23.0	(5.3)
Metabolic problems (milk fever, grass tetany, etc.)	0.1	(0.0)	0.4	(0.4)	0.1	(0.1)	0.1	(0.1)	10.5	(4.5)	0.0	(—)
Weather-related causes (chilling, drowning, lightning, etc.)	11.9	(4.5)	7.1	(2.8)	4.1	(1.8)	13.1	(3.5)	6.0	(2.5)	2.3	(1.2)
Theft (stolen)	0.2	(0.1)	0.0	(0.0)	1.0	(0.8)	0.0	(0.0)	0.0	(0.0)	0.0	(—)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0	(0.0)	0.4	(0.4)	0.0	(0.0)	0.0	(0.0)	1.2	(1.1)	0.1	(0.1)
Calving problems	10.4	(2.9)	10.4	(3.1)	38.4	(7.3)	9.4	(2.4)	11.4	(5.1)	5.0	(2.4)
Lameness/injury	0.7	(0.4)	2.2	(0.7)	0.2	(0.1)	2.4	(1.3)	1.3	(0.5)	3.9	(1.5)
Other diseases	1.1	(1.1)	4.0	(1.3)	13.1	(6.9)	2.0	(1.1)	8.0	(4.6)	2.8	(1.0)
Other	1.8	(1.2)	1.9	(0.6)	0.5	(0.4)	1.8	(1.3)	5.1	(2.8)	6.5	(4.3)
Unknown	4.9	(2.4)	9.1	(3.4)	3.4	(1.7)	6.9	(3.9)	3.8	(1.2)	18.3	(7.3)
Total	100.0		100.0		100.0		100.0		100.0		100.0	



On “other” operations, digestive and respiratory problems combined accounted for over 65 percent of calf losses in all regions except the Southeast.

d. For **other** operations, percentage of calf death loss by cause and by region:

Nonpredator cause	Percent Nonpredator Loss											
	Region											
	North Central		Northeast		Northwest		South Central		Southeast		Southwest	
	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error	Pct.	Std. error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	15.6	(3.5)	22.5	(2.9)	24.1	(9.8)	17.8	(6.3)	12.8	(4.5)	41.1	(10.9)
Respiratory problems (pneumonia, shipping fever, etc.)	54.3	(5.2)	52.4	(5.0)	49.7	(11.8)	48.8	(10.6)	34.3	(7.0)	48.3	(9.4)
Metabolic problems (milk fever, grass tetany, etc.)	0.8	(0.2)	0.6	(0.5)	0.0	(0.0)	0.2	(0.2)	4.0	(3.8)	0.1	(0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	8.4	(2.1)	2.9	(0.9)	0.3	(0.1)	8.4	(1.7)	7.5	(4.6)	3.7	(1.8)
Theft (stolen)	0.0	(—)	0.0	(—)	0.0	(0.0)	0.4	(0.4)	0.0	(—)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0	(—)	0.1	(0.1)	0.0	(0.0)	0.4	(0.5)	0.2	(0.0)	0.4	(0.2)
Calving problems	6.5	(2.9)	1.6	(0.7)	1.2	(0.7)	1.4	(1.0)	14.6	(7.7)	0.8	(0.7)
Lameness/injury	2.6	(1.1)	0.9	(0.3)	0.2	(0.1)	0.2	(0.2)	1.3	(0.8)	0.1	(0.1)
Other diseases	2.1	(0.7)	5.4	(2.8)	11.9	(10.1)	18.3	(6.2)	14.6	(7.9)	0.3	(0.2)
Other	1.1	(0.5)	4.0	(2.4)	6.8	(2.4)	1.4	(0.9)	1.4	(1.3)	0.7	(0.6)
Unknown	8.6	(3.3)	9.6	(3.6)	5.8	(2.4)	2.7	(1.7)	9.3	(3.4)	4.5	(2.0)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

## Section III: Methodology

### A. Reliability of Cattle and Calf Death Loss Estimates

#### 1. Survey procedures

A random sample of U.S. cattle producers was surveyed to provide data for these estimates. Survey procedures ensured that all producers (except those in Alaska) had an opportunity to participate in the survey, regardless of operation size. Large operations were sampled more heavily than small operations. Data were collected during the first half of January by mail, telephone, and face-to-face interviews from about 77,000 producers in 1992, 50,000 in 1996, 50,000 in 2001, 50,000 in 2006, and 40,000 in 2011. Producers were asked to report death losses for cattle and calves for the 1991, 1995, 2000, 2005, and 2010 calendar years and the January 1, 1992, 1996, 2001, 2006, and 2011 cattle and calf inventories by class.

Based on the original data collected during January, NASS's "Cattle and Calves Death Loss" report was issued in May 1992, May 1996, May 2006, and May 2011. NASS's "Cattle Predator Loss" report was published in May 2001. These reports contained data for death loss by cause, including predator losses and losses from other causes. These estimates were on State and regional levels. NASS's Cattle report was issued in February 1991, February 1995, February 2001, February 2006, and January 2011 and contained January 1 inventory estimates.

Data in the reports mentioned above as well as additional summaries from the original data provided estimates for this report. The original data were resummarized to break the losses out by class and by size group based on reported inventory. The classes included beef cattle, dairy cattle, mixed, and "other" cattle operations. These classes and size groups are further defined in Terms Used in This Report, p 2.

#### 2. Estimating procedures

Estimates of total death loss and death loss by cause were prepared by the Livestock, Dairy and Poultry Branch, NASS, and the National Animal Health Monitoring System, APHIS. Total cattle and calf death losses from all causes were published in NASS's 1991, 1995, 2000, 2005, and 2010 Meat Animal Production, Disposition, and Income" reports, released in April 1992, April 1996, April 2001, April 2006, and April 2011. Breakdowns by cause of loss and value of loss were published in the NASS "Cattle and Calves Death Loss" reports issued in May 1992, May 1996, May 2006, and May 2011. Only the NASS "Cattle Predator Loss" report was issued in May 2001.

### **3. Reliability**

Since all cattle producers are not included in the sample, survey estimates are subject to sampling variability. Survey results also are subject to nonsampling errors such as omissions, duplications, and mistakes in reporting, recording, and processing data. The effects of these nonsampling errors cannot be measured directly. They are minimized through rigid quality controls in the data collection process and through a careful review of all reported data for consistency and reasonableness.

## Appendix: U.S. Populations and Operations\*

### Number of Cattle and Calves on January 1, 2011, and Number of Operations in 2007

Region	State	Number cattle and calves (1,000 head)	Number operations
North Central	Iowa	3,900	30,000
	Minnesota	2,380	25,000
	Nebraska	6,200	22,000
	North Dakota	1,700	10,500
	South Dakota	3,700	15,700
	Total	17,880	103,200
Northeast	Connecticut	49	1,200
	Delaware	18	400
	Illinois	1,100	18,500
	Indiana	850	18,500
	Kentucky	2,190	44,000
	Maine	90	2,100
	Maryland	195	3,700
	Massachusetts	40	1,800
	Michigan	1,090	14,500
	New Hampshire	34	1,000
	New Jersey	32	1,400
	New York	1,400	13,600
	Ohio	1,230	26,000
	Pennsylvania	1,610	26,000
	Rhode Island	5	280
	Vermont	270	2,500
	Virginia	1,540	26,000
	West Virginia	370	12,800
	Wisconsin	3,450	35,000
Total	15,563	249,280	
Northwest	Idaho	2,200	10,600
	Montana	2,500	12,300
	Oregon	1,330	16,100
	Washington	1,090	12,700
	Wyoming	1,300	5,600
	Total	8,420	57,300
South Central	Arkansas	1,720	28,000
	Kansas	6,300	30,000
	Missouri	3,950	59,000
	Oklahoma	5,100	55,000
	Texas	13,300	152,000
	Total	30,370	324,000
Southeast	Alabama	1,230	24,000
	Florida	1,630	21,000
	Georgia	1,020	21,000
	Louisiana	790	14,100
	Mississippi	900	17,800
	North Carolina	780	19,200
	South Carolina	385	8,800
	Tennessee	1,990	47,000
	Total	8,725	172,900
Southwest	Arizona	870	7,700
	California	5,150	16,600
	Colorado	2,650	14,700
	Hawaii	141	1,100
	Nevada	460	1,500
	New Mexico	1,540	9,500
	Utah	800	7,600
	Total	11,611	58,700
Total (49 States)		92,569	965,380
Total U.S. (50 States)		92,582	965,510

\*Source: NASS Cattle 2011; NASS Farms, Land in Farms, and Livestock Operations, 2007