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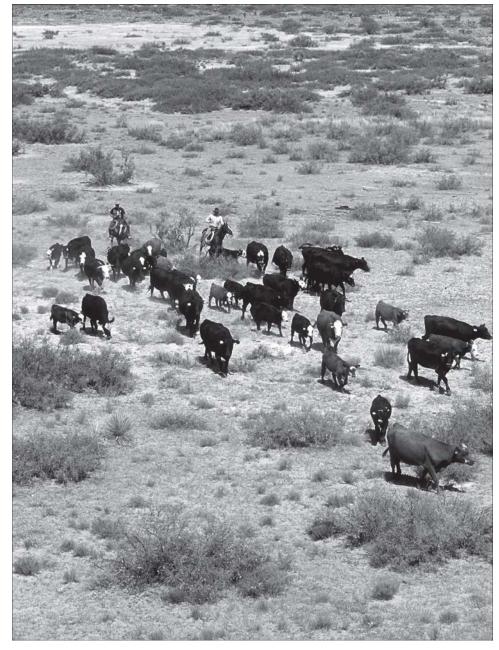
Veterinary Services

National Animal Health Monitoring System

May 2007



# Cattle and Calves Nonpredator Death Loss in the United States, 2005



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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 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, and 2006 surveys, USDA's Animal and Plant Health Inspection Service (APHIS) provided funding for a detailed breakdown of total losses for producer-attributed cause of loss occurring the previous year. Death losses (number of head) by cause for predator and nonpredator losses were estimated and subsequently published by NASS (Cattle Death Loss, May 5, 2006).

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

# Terms Used InBeef operation: If an operation had more beef cows than milk cows and milkThis Reportcows were fewer than five head, the operation was classified as a beef operation.

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

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

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

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

N/A: Not available

**Regions:** The United States was divided into six regions for the purposes of providing data on smaller geographic areas. Alaska is not included because cause-of-loss estimates are not generated for the State.

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

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

For beef operations size groups are: 1-49, 50-99, 100-499, and 500 or more head.

**For dairy operations** size groups are: 1-29, 30-49, 50-99, 100-199, 200-499, and 500 or more head.

**For mixed operations** size groups are: 1-99, 100-499, and 500 or more head.

**For other operations** (total number of cattle and calves) size groups are: 1-99 head, 100-499, 500-999, and 1,000 or more head.

# Section I: Population Estimates—Number of Head

# A. U.S. Demographics

1. Inventory—January 1, 1996-2006<sup>1</sup>

Number of cattle and calves, by year:

				J	anuary 1	Number	(x 1,000) <sup>3</sup>	*			
						Year					
Class	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
All cattle and calves	103,548	101,656	99,744	99,115	98,199	97,298	96,723	96,100	94,888	95,438	96,702
Cattle 500 lb or more	85,164	83,830	82,343	81,825	81,383	81,082	80,971	80,555	79,679	80,188	81,237
Beef cows	35,319	34,458	33,885	33,750	33,575	33,398	33,134	32,983	32,861	32,915	32,994
Dairy cows	9,420	9,318	9,199	9,128	9,183	9,172	9,106	9,142	8,990	9,005	9,063
Heifers, steers, and bulls	40,426	40,054	39,259	38,946	38,625	38,511	38,731	38,430	37,828	38,268	39,180
Calves	18,384	17,826	17,401	17,290	16,816	16,216	15,753	15,545	15,210	15,250	15,465
*Numbers may	not add up	due to rou	nding								

# 2. Operations-1995-2005

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

	Number Operations													
						Year								
	1995	1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005												
Cattle and calves	1.190.630	1.176.700	1.148.050	1.114.650	1.095.560	1.076.370	1.049.170	1.036.430	1,013,570	989.460	982,510			
Beef cows	897,660	885,980		855,460		831,270	814,520	808,110		774,930	770,170			
Milk cows	139,670	130,980	123,700	117,145	110,855	105,055	97,460	91,240	86,360	81,520	78,300			

<sup>1</sup>NASS multiple reports

					Percen	t Opera	ations				
						Year					
Size of Operation (Number of Beef Cows)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1 to 49	79.8	79.4	79.3	79.3	79.0	78.8	78.5	78.4	78.3	77.6	77.5
50 to 99	11.8	12.0	12.0	11.9	12.0	12.0	12.1	12.2	12.1	12.4	12.3
100 to 499	7.8	8.0	8.1	8.2	8.4	8.5	8.7	8.7	8.9	9.3	9.5
500 or more	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

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

					Percen	t Opera	ations					
	Year											
Size of Operation (Number of Dairy Cows)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
1 to 29	34.5	32.9	31.6	30.8	29.7	29.3	29.0	28.9	29.0	29.2	28.7	
30 to 49	22.2	22.3	22.1	21.8	21.7	21.1	20.4	19.8	19.5	19.0	19.0	
50 to 99	28.1	28.7	29.0	29.1	29.6	29.7	29.8	30.0	29.9	29.5	29.6	
100 to 199	10.2	10.7	11.3	11.8	11.9	12.2	12.6	12.7	12.7	12.8	12.8	
200 or more	5.0	5.4	6.0	6.5	7.1	7.7	8.2	8.6	8.9	9.5	9.9	
200 to 499	N/A	N/A	4.1	4.4	4.8	5.1	5.3	5.4	5.5	5.8	6.0	
500 or more	N/A	N/A	1.9	2.1	2.3	2.6	2.9	3.2	3.4	3.7	3.9	

100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0

# Percent Operations

Total

						Year					
Size of Operation (Number of Beef Cows)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1 to 49	31.2	30.8	30.4	30.5	29.9	29.5	29.0	29.0	29.1	28.1	27.9
50 to 99	19.2	19.6	19.4	18.8	19.1	19.1	19.1	19.2	19.0	19.1	19.0
100 to 499	35.3	35.4	35.9	36.1	36.6	36.7	37.0	37.3	37.5	38.3	38.5
500 or more	14.3	14.2	14.3	14.6	14.4	14.7	14.9	14.5	14.4	14.5	14.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

**Percent Inventory** 

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

						Year	-				
Size of Operation (Number of Dairy Cows)	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1 to 29	4.0	4.0	3.5	3.6	3.2	2.9	2.7	2.4	2.3	2.1	2.0
30 to 49	13.0	12.0	11.5	10.5	10.2	9.1	8.0	7.4	6.9	6.6	6.4
50 to 99	28.0	27.0	26.0	24.3	23.3	22.0	20.8	19.6	18.8	17.8	17.1
100 to 199	20.0	20.0	20.0	19.3	18.4	18.1	17.2	16.4	15.7	15.1	14.6
200 or more	35.0	37.0	39.0	42.3	44.9	47.9	51.3	54.2	55.3	58.4	59.9
200 to 499	N/A	N/A	14.6	15.5	16.3	16.6	16.3	15.9	15.4	15.5	15.4
500 or more	N/A	N/A	24.4	26.8	28.6	31.3	35.0	38.3	40.9	42.9	44.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

# **Percent Inventory**

# 3. Calf crop-1995-2005

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

*,						Year					
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
<b>Calf crop</b> (1,000 Head)	40,264	39,823	38,961	38,812	38,796	38,631	38,300	38,224	37,903	37,505	37,575
Calf crop per 100 cows on hand (January 1)	90.1	89.0	89.0	90.1	90.5	90.3	90.0	90.5	90.0	89.6	89.6

# B. Regional Demographics

**1. Cattle and calves inventory—January 1, 1992, 1996, 2001, and 2006** 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 2006, with 96.7 million head present on January 1, 2006.

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

			Janua	ry 1—Nu	mber (x	1,000)		
		Cattle ar	nd Calves	5	(	Cattle Ov	ver 500 lb	)
Region	1992	1996	2001	2006	1992	1996	2001	2006
North Central	18,000	19,110	18,830	18,120	15,248	16,555	16,884	16,390
Northeast	18,638	18,184	16,111	16,185	14,598	14,259	12,903	12,852
Northwest	8,300	8,920	8,600	8,460	7,320	8,018	7,796	7,734
South Central	30,480	33,610	31,500	32,410	24,565	27,390	25,650	26,920
Southeast	10,760	11,710	9,925	9,460	8,152	8,845	7,506	7,194
Southwest	11,270	12,004	12,320	12,051	9,331	10,089	10,334	10,134
Total*	97,548	103,538	97,286	96,686	79,214	85,156	81,073	81,224

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

**2. Beef and dairy cow inventory—January 1, 1992, 1996, 2001, and 2006** From 1992 to 2006, U.S. inventory of beef cows fluctuated between 33 million and 35 million head, while dairy cow inventory decreased from 9.7 million to 9.0 million head. In 2006, the South Central region had more beef cows than any other region (12.2 million head), while the Northeast region had more dairy cows than any other region (3.8 million).

			Janua	ary 1—Nu	umber (x 1	,000)		
		Beef	Cows			Dairy	Cows	
Region	1992	1996	2001	2006	1992	1996	2001	2006
North Central	5,618.0	6,072.0	6,151.0	6,029.0	12,320.0	1,078.0	949.0	806.0
Northeast	3,832.3	3,926.6	3,510.5	3,695.0	4,787.4	4,417.1	4,017.6	3,831.5
Northwest	3,641.0	3,874.0	3,721.0	3,543.0	549.0	626.0	714.0	857.0
South Central	11,484.0	12,520.0	11,895.0	12,185.0	856.0	820.0	715.0	645.0
Southeast	5,262.0	5,760.0	5,077.0	4,885.0	763.0	640.0	543.0	421.0
Southwest	3,167.0	3,153.0	3,040.0	2,650.4	1,540.0	838.0	2,178.0	2,501.6
Total*	33,004.3	35,315.6	33,394.5	32,987.4	9,727.4	9,419.1	9,170.6	9,062.1

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

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

# 3. Calf crop-1991, 1995, 2000, and 2005

About 30 percent of the 37.6 million calves born in 2005 were born in the South Central region.

Calendar year calf crop, by region and by year:

		Calf Crop	) (x 1,000)	
		Ye	ar	
Region	1991	1995	2000	2005
North Central	6,570	6,770	6,730	6,420
Northeast	7,823	7,5767	6,813	6,569
Northwest	3,945	4,280	4,410	4,410
South Central	11,070	11,910	11,330	11,450
Southeast	5,205	5,475	4,880	4,560
Southwest	3,968	4,249	4,464	4,361
Total*	38,581	40,261	38,627	37,570

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

C. U.S. Annual Death Loss

# 1. Loss from all causes—1991-2005

A total of 1.7 million cattle and 2.3 million calves were lost to all causes during 2005. These totals represent 2.1 and 6.2 percent of cattle inventory and calf crop, respectively. While the percentage of cattle inventory lost remained stable, the percentage of calf crop lost declined from 7.0 percent in 1991 to 6.2 percent in 2005.

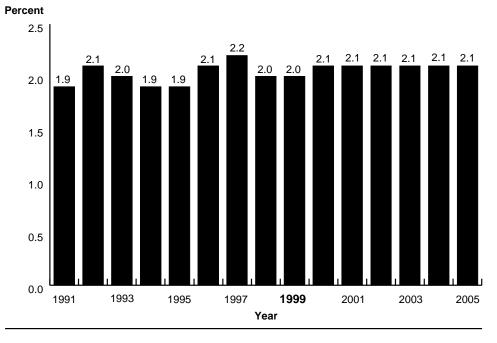
a. Number of cattle and calf death losses due to all causes, by year:

	<b>Number</b> (x 1,000)														
	Year														
	1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2004														
Cattle	1,540	1,677	1,702	1,589	1,645	1,761	1,847	1,668	1,658	1,711	1,722	1,710	1,710	1,711	1,718
Calves	2,707	2,689	2,921	2,681	2,739	2,811	2,829	2,541	2,455	2,387	2,487	2,366	2,320	2,292	2,335
Total	4,247	4,366	4,623	4,270	4,384	4,572	4,676	4,209	4,113	4,098	4,209	4,076	4,030	4,003	4,053

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

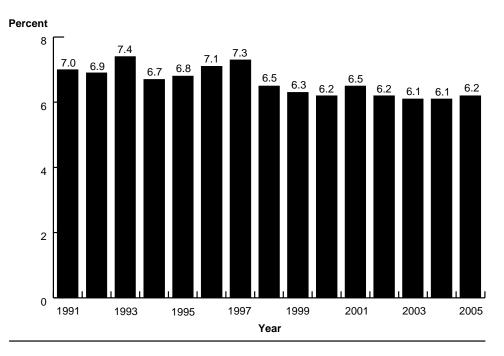
	Percent Inventory													
	Year													
991	991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 20													
1.9	1.9 2.1 2.0 1.9 1.9 2.1 2.2 2.0 2.0 2.1													

Cattle Death Losses as a Percentage of January 1 Inventory of Cattle Over 500 lb on January 1 of the Following Year, by Year



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

	Percent Calf Crop													
	Year													
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2003											2005			
7.0	6.9	7.4	6.7	6.8	7.1	7.3	6.5	6.3	6.2	6.5	6.2	6.1	6.1	6.2



Calf Death Losses as a Percentage of Calf Crop, by Year

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

Since 1991, nonpredator causes accounted for the majority of cattle and calf losses; 95.3 percent of losses in 2005 were attributed to nonpredator causes. As expected, predators accounted for a larger percentage of calf losses than cattle losses (6.7 and 2.0 percent, respectively).

Year										
	199	91	19	95	200	00	200	5		
Cause	Number (x 1,000)	Pct.								
Nonpredator	4,143.4	97.6	4,263.6	97.3	3,952.0	96.4	3,861.0	95.3		
Predator	102.0	2.4	118.8	2.7	144.6	3.6	190.0	4.7		
Total	4,245.4	100.0	4,382.4	100.0	4,096.6	100.0	4,051.0	100.0		

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

	Year									
	199	91	19	95	20	00	200	)5		
Cause	Number (x 1,000)	Pct.	Number (x 1,000)	Pct.	Number (x 1,000)	Pct.	<b>Number</b> (x 1,000)	Pct.		
Nonpredator	1523.7	99.0	1,622.7	98.7	1,689.6	98.8	1,683.0	98.0		
Predator	15.4	1.0	21.4	1.3	20.5	1.2	34.0	2.0		
Total	1,539.1	100.0	1,644.1	100.0	1,710.1	100.0	1,717.0	100.0		

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

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

	Year									
	199	91	19	95	20	00	200	5		
Cause	Number (x 1,000)	Pct.	Number (x 1,000)	Pct.	Number (x 1,000)	Pct.	<b>Number</b> (x 1,000)	Pct.		
Nonpredator	2,619.7	96.8	2,640.9	96.5	2,262.4	94.8	2,178.0	93.3		
Predator	86.6	3.2	97.4	3.5	124.1	5.2	156.0	6.7		
Total	2,706.3	100.0	2,738.3	100.0	2,386.5	100.0	2,334.0	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.

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

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

		Number Lo	<b>sses</b> (x 1,000)	
		Y	'ear	
Region	1991	1995	2000	2005
North Central	264.0	277.0	281.0	267.0
Northeast	312.1	311.1	291.1	300.0
Northwest	103.0	115.0	124.0	117.0
South Central	498.0	522.0	625.0	635.0
Southeast	183.0	201.0	174.0	174.0
Southwest	179.0	218.0	215.0	224.0
Total*	1,539.1	1,644.1	1,710.1	1,717.0

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

In 2005, the Northwest and North Central regions lost a smaller percentage of cattle (1.5 and 1.6 percent, respectively) than the other regions.

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

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

		Number Loss	<b>es</b> (x 1,000)	
		Yea	ar	
Region	1991	1995	2000	2005
North Central	493.0	553.0	425.0	392.0
Northeast	717.3	673.3	538.5	543.0
Northwest	204.0	216.0	225.0	205.0
South Central	689.0	675.0	620.0	638.0
Southeast	297.0	313.0	266.0	238.0
Southwest	306.0	308.0	312.0	318.0
Total*	2,706.3	2,738.3	2,386.5	2,334.0

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

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

The Northeast region lost the largest percentage of calf crop (8.2 percent) in 2005, compared all other regions.

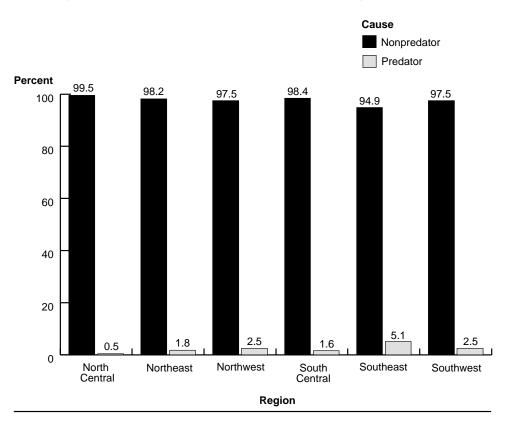
d. Calf death losses as a percentage of calf crop, by region and by year:

	Percent Calf Crop Year								
Region	1991	1995	2000	2005					
North Central	7.5	8.2	6.3	6.1					
Northeast	9.2	8.9	7.9	8.2					
Northwest	5.2	5.0	5.1	4.8					
South Central	6.2	5.7	5.5	5.5					
Southeast	5.7	5.7	5.5	5.2					
Southwest	7.7	7.2	7.0	7.2					
Total	7.0	6.8	6.2	6.2					

**4. Regional predator and nonpredator death loss—1995, 2000, and 2005** In all regions, nonpredator causes accounted for the majority of cattle losses. With the exception of the North Central and South Central regions, the percentages of losses due to nonpredator causes decreased in all regions from 1995 to 2005. In the Southeast region, the percentage of losses due to nonpredator causes decreased from 98.5 percent in 1995 to 94.9 percent in 2005.

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

, <u> </u>				Ye	ear		
		199	95	20	00	20	05
Region	Cause	Number (x1,000)	Percent	Number (x1,000)	Percent	Number (x1,000)	Percent
	Nonpredator	274.8	99.2	280.2	99.7	265.6	99.5
North Central	Predator	2.2	0.8	0.8	0.3	1.4	0.5
	Total	277.0	100.0	281.0	100.0	267.0	100.0
	Nonpredator	308.3	99.1	288.2	99.0	294.7	98.2
Northeast	Predator	2.8	0.9	2.9	1.0	5.3	1.8
	Total	311.1	100.0	291.1	100.0	300.0	100.0
	Nonpredator	113.5	98.7	121.9	98.3	114.1	97.5
Northwest	Predator	1.5	1.3	2.1	1.7	2.9	2.5
	Total	115.0	100.0	124.0	100.0	117.0	100.0
	Nonpredator	514.2	98.5	619.7	99.2	625.0	98.4
South Central	Predator	7.8	1.5	5.3	0.8	10.0	1.6
	Total	522.0	100.0	625.0	100.0	635.0	100.0
	Nonpredator	198.0	98.5	170.5	98.0	165.1	94.9
Southeast	Predator	3.0	1.5	3.5	2.0	8.9	5.1
	Total	201.0	100.0	174.0	100.0	174.0	100.0
	Nonpredator	214.1	98.2	208.8	97.1	218.5	97.5
Southwest	Predator	3.9	1.8	6.2	2.9	5.5	2.5
	Total	218.0	100.0	215.0	100.0	224.0	100.0

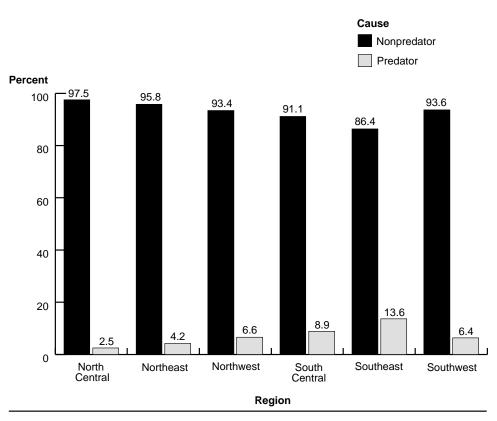


#### Percentage of 2005 Cattle Death Losses, by Cause and by Region

In all regions in 2005, nonpredator causes accounted for the majority of calf losses. However, the percentage of total losses due to nonpredator causes ranged from 86.4 percent in the Southeast region to 97.5 percent in the North Central region.

				Ye	ear		
		19	95	20	00	20	05
Region	Cause	<b>Number</b> (x1,000)	Percent	Number (x1,000)	Percent	Number (x1,000)	Percent
	Nonpredator	545.3	98.6	416.9	98.1	382.1	97.5
North Central	Predator	7.7	1.4	8.1	1.9	9.9	2.5
	Total	553.0	100.0	425.0	100.0	392.0	100.0
	Nonpredator	662.5	98.4	526.1	97.7	520.3	95.8
Northeast	Predator	10.8	1.6	12.4	2.3	22.7	4.2
	Total	673.3	100.0	538.5	100.0	543.0	100.0
	Nonpredator	206.1	95.4	210.1	93.3	191.4	93.4
Northwest	Predator	9.9	4.6	14.9	6.7	13.6	6.6
	Total	216.0	100.0	225.0	100.0	205.0	100.0
	Nonpredator	636.5	94.3	581.6	93.8	581.0	91.1
South Central	Predator	38.5	5.7	38.4	6.2	57.0	8.9
	Total	675.0	100.0	620.0	100.0	638.0	100.0
	Nonpredator	299.5	95.7	242.4	91.1	205.6	86.4
Southeast	Predator	13.5	4.3	23.6	8.9	32.4	13.6
	Total	313.0	100.0	266.0	100.0	238.0	100.0
	Nonpredator	292.3	94.9	284.5	91.2	297.6	93.6
Southwest	Predator	15.7	5.1	27.5	8.8	20.4	6.4
	Total	308.0	100.0	312.0	100.0	317.0	100.0

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



# Percentage of 2005 Calf Death Losses, by Cause and by Region

# Section II: Population Estimates—Nonpredator Losses

# A. Operation Classification

# 1. Operation classification process

This section reports death loss and cause of loss on three operation types: beef, dairy, and mixed operations (see 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 (65.6 percent) of the January 1, 2006, inventory of cattle and calves was on beef operations. Over 98 percent of beef cows were on beef operations, and 1.4 percent were on mixed operations. Ninety percent of the dairy cow inventory was on dairy operations, and 9.9 percent was on mixed operations.

Percent Inventory All Cattle and Calves **Beef Cows Dairy Cows** Operation Std. Std. Std. Percent Percent Error Error Percent Error Туре Beef 65.6 (0.8)98.6 (0.1) 0.1 (0.0)Dairy 15.6 (0.4) 0.0 (0.0) 90.0 (1.7)Mixed 2.6 (0.4)1.4 (0.1)9.9 (1.7)Other 16.2 (0.8) 0.0 (--) 0.0 (--) Total 100.0 100.0 100.0

a. Percentage of January 1, 2006, inventory for all cattle and calves, beef cows, and dairy cows, by operation type:

Across all operation types, nonpredator causes accounted for the majority of cattle losses in 2005.

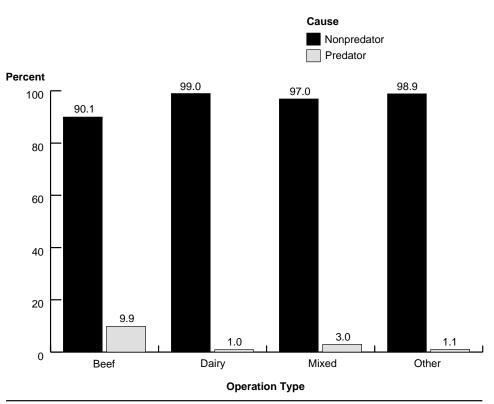
b. Percentage of 2005 cattle death losses, by cause and by operation type:

	Percent Losses									
	Operation Type									
	Ве	ef	Da	iry	Mix	ked	Otl	her		
Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error		
Nonpredator	96.6	(0.3)	99.7	(0.1)	99.6	(0.1)	99.3	(0.2)		
Predator	3.4	(0.3)	0.3	(0.1)	0.4	(0.1)	0.7	(0.2)		
Total	100.0		100.0		100.0		100.0			

Just over 90 percent of calf losses on beef operations were due to nonpredator causes, compared to at least 97 percent of losses on dairy, mixed, and other operations (99.0, 97.0, and 98.9 percent of losses, respectively).

c. Percentage of 2005 calf death losses, by cause and by operation type:

	Percent Losses									
	Operation Type									
	Ве	ef	Da	iry	Mix	ked	Otl	ner		
Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error		
Nonpredator	90.1	(0.4)	99.0	(0.1)	97.0	(0.9)	98.9	(0.3)		
Predator	9.9	(0.4)	1.0	(0.1)	3.0	(0.9)	1.1	(0.3)		
Total	100.0		100.0		100.0		100.0			



Percentage of 2005 Calf Losses, by Cause and by Operation Type

Half of cattle losses (51.4 percent) and 61.0 percent of calf losses in the United States occurred on beef operations, which is most likely a reflection of the fact that the majority of U.S. cattle and calves are on beef operations.

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

	Percent Nonpredator Loss								
	Ca	attle	Calf						
Operation Type	Percent	Std. Error	Percent	Std. Error					
Beef	51.4	(1.4)	61.0	(1.5)					
Dairy	24.9	(0.8)	21.0	(0.7)					
Mixed	3.2	(0.6)	3.6	(0.4)					
Other	20.5	(1.7)	14.4	(1.9)					
Total	100.0		100.0						

# B. Nonpredator Cattle Death Loss

# 1. Losses as a percentage of inventory-2005

The percentage of cattle inventory lost to nonpredator causes ranged from 1.5 percent in the Northwest region to 2.6 percent in the South Central region.

a. Percentage of cattle inventory lost,\* by region:

	Percent Inventory						
Region	Percent	Standard Error					
North Central	1.8	(0.1)					
Northeast	2.3	(0.1)					
Northwest	1.5	(0.1)					
South Central	2.6	(0.1)					
Southeast	2.2	(0.1)					
Southwest	2.3	(0.1)					

\*2005 death loss divided by end-of-year (January 1, 2006) inventory of cattle 500 lb or greater X 100.

Overall, 1.7 percent of cattle inventory on beef operations was lost to nonpredator causes. Across all 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:

#### **Percent Inventory\***

	1-49		50	50-99		100-499		500 or More		All ations
Region	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	1.8	(0.3)	1.2	(0.1)	1.1	(0.1)	1.1	(0.1)	1.2	(0.1)
Northeast	1.7	(0.1)	1.4	(0.1)	1.2	(0.1)	1.1	(0.1)	1.5	(0.1)
Northwest	1.6	(0.2)	1.2	(0.2)	0.9	(0.1)	0.8	(0.1)	1.0	(0.1)
South Central	3.1	(0.2)	2.3	(0.2)	2.0	(0.2)	1.3	(0.1)	2.3	(0.1)
Southeast	2.3	(0.1)	2.2	(0.2)	1.9	(0.2)	1.1	(0.1)	2.0	(0.1)
Southwest	2.2	(0.3)	1.7	(0.2)	1.2	(0.1)	1.3	(0.1)	1.4	(0.1)
All operations	2.4	(0.1)	1.8	(0.1)	1.5	(0.1)	1.1	(0.1)	1.7	(0.0)

# Size of Operation (Number of Cows)

\*2005 death loss divided by end-of-year (January 1, 2006) inventory of cattle 500 lb or greater x 100.

Overall, 3.6 percent of cattle inventory on dairy operations was lost to nonpredator causes, ranging from 3.1 percent of inventory in the Northeast region to 6.1 percent in the South Central region. Across all regions, the percentage of inventory lost was higher on dairy operations than on beef operations (table b).

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

#### **Percent Inventory**

	1.	-29	30	0-49	50	)-99	100	-199	200	-499	-	00 Nore	-	All ations
Region	Pct.	Std. Error												
North Central	3.8	(1.1)	3.7	(0.7)	3.3	(0.3)	3.6	(0.4)	4.1	(0.4)	9.0	(0.6)	4.5	(0.2)
Northeast	3.1	(0.5)	2.4	(0.2)	2.8	(0.1)	3.0	(0.2)	3.4	(0.2)	4.0	(0.3)	3.1	(0.1)
Northwest	2.0	(0.6)	4.4	(1.1)	3.9	(0.5)	3.3	(0.3)	3.7	(0.3)	4.0	(0.4)	3.9	(0.3)
South Central	2.2	(1.1)	7.2	(1.8)	6.0	(0.9)	4.9	(0.6)	5.6	(0.8)	7.1	(1.1)	6.1	(0.6)
Southeast	**		3.9	(0.3)	4.6	(0.5)	4.4	(0.3)	3.3	(0.2)	4.0	(0.3)	4.0	(0.2)
Southwest	**		**		3.0	(0.6)	3.9	(0.7)	3.8	(0.3)	3.0	(0.3)	3.2	(0.3)
All operations	3.9	(0.9)	2.7	(0.2)	3.1	(0.1)	3.4	(0.1)	3.7	(0.2)	3.8	(0.2)	3.6	(0.1)

#### Size of Operation (Number of Cows)

\*2005 death loss divided by end-of-year (January 1, 2006) inventory of cattle 500 lb or greater X 100.

\*\*Too few operations to report.

On mixed operations, 2.7 percent of inventory was lost to nonpredator causes.

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

# **Percent Inventory**

	1.	1-99		100-499		r More	All Operations		
Region	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	
North Central	3.3	(0.5)	2.2	(0.4)	2.6	(0.9)	2.6	(0.3)	
Northeast	2.8	(0.5)	2.3	(0.3)	3.2	(0.6)	2.6	(0.2)	
Northwest	**		2.2	(0.5)	1.9	(0.3)	2.0	(0.3)	
South Central	4.4	(1.3)	2.5	(0.4)	2.2	(0.8)	2.9	(0.4)	
Southeast	2.6	(0.8)	2.7	(0.3)	2.6	(0.5)	2.7	(0.3)	
Southwest	**		0.9	(0.2)	3.6	(0.3)	3.0	(0.6)	
All operations	3.2	(0.3)	2.1	(0.2)	3.1	(0.3)	2.7	(0.2)	

# Size of Operation (Number of Cows)

\*2005 death loss divided by end-of-year (January 1, 2006) inventory of cattle 500 lb or greater X 100. \*\* Too few operations to report.

On "other" operations, 2.7 percent of inventory was lost to nonpredator causes.

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

# **Percent Inventory**

	1.	-99	100 <sup>.</sup>	-499`	500	-999		00 or ore		All ations
Region	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	4.8	(0.9)	2.6	(0.3)	1.9	(0.2)	3.1	(0.2)	3.0	(0.1)
Northeast	2.7	(0.4)	2.0	(0.3)	1.8	(0.3)	1.4	(0.2)	2.1	(0.2)
Northwest	6.9	(1.7)	1.6	(0.5)	1.0	(0.2)	1.7	(0.2)	2.0	(0.2)
South Central	9.0	(2.6)	2.9	(0.6)	1.8	(0.4)	3.0	(0.5)	3.2	(0.4)
Southeast	5.1	(1.6)	1.5	(0.6)	3.2	(0.5)	2.3	(0.4)	3.5	(0.6)
Southwest	4.5	(1.5)	2.6	(0.8)	2.1	(0.4)	2.6	(0.2)	2.6	(0.2)
All operations	5.0	(0.6)	2.4	(0.2)	2.0	(0.2)	2.8	(0.3)	2.9	(0.2)

Size of Operation (Number of Cattle and Calves)

\*2005 death loss divided by end-of-year (January 1, 2006) inventory of cattle 500 lb or greater X100.

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

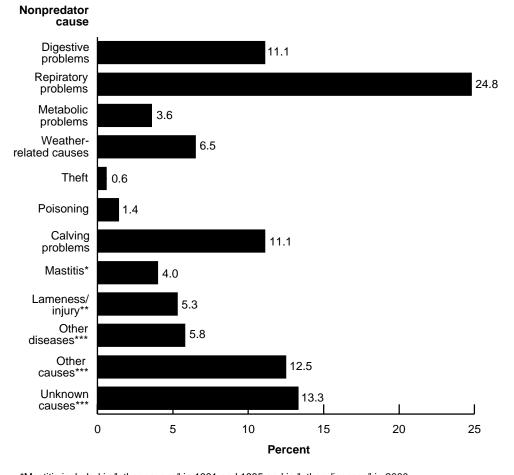
Since 1991, respiratory problems accounted for the highest percentage of nonpredator cattle losses (24.8 percent). Other common causes of loss in 2005 included unknown causes (13.3 percent) and calving problems (11.1 percent).

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

	Percent Nonpredator Loss							
Nonpredator Cause	1991	1995	2000	2005				
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	12.8	12.2	10.5	11.1				
Respiratory problems (pneumonia, shipping fever, etc.)	26.1	26.0	27.1	24.8				
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	4.0	3.6				
Weather-related causes (chilling, drowning, lightning, etc.)	7.4	8.3	8.0	6.5				
Theft (stolen)	1.0	0.5	1.2	0.6				
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	3.2	2.0	1.6	1.4				
Calving problems	16.2	15.3	12.4	11.1				
Mastitis*	N/A	N/A	N/A	4.0				
Lameness/injury**	N/A	N/A	N/A	5.3				
Other diseases***	N/A	N/A	6.1	5.8				
Other causes***	33.3	35.7	13.2	12.5				
Unknown causes***	N/A	N/A	15.9	13.3				
Total	100.0	100.0	100.0	100.0				

\*Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

\*\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.



#### Percentage of 2005 Cattle Death Losses, by Cause

\*Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000. \*\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\*\*\*Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995. Respiratory problems accounted for just under one-fifth of cattle losses (18.7 percent) on beef operations. Not surprisingly, the percentage of losses due to mastitis was higher on dairy operations than on beef operations (12.8 and 0.5 percent, respectively.) Mastitis also accounted for 15.8 percent of losses on mixed operations, likely because almost 10 percent of the dairy cow inventory was on mixed operations (see table 2a, p. 18). Respiratory problems accounted for over half of nonpredator losses (54.2 percent) on "other" operations; many operations in the this category are feedlots, which commonly experience problems with bovine respiratory disease.

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

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

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

\*Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

\*\*Lameness/injury included in "other causes" in 1991, 1995, and 2000.

\*\*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

		Per	cent Nonp	oredator L	.oss	
Nonpredator Cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. Error	2005	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia,						
acidosis, etc.)	14.3	15.2	12.2	(0.5)	12.3	(0.6)
Respiratory problems (pneumonia, shipping fever, etc.)	11.4	18.6	14.6	(0.6)	14.4	(0.8)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	10.6	(0.5)	9.9	(0.5)
Weather-related causes (chilling, drowning, lightning, etc.)	4.4	8.2	4.3	(0.8)	2.0	(0.2)
Theft (stolen)	0.3	0.0	0.2	(0.1)	0.1	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.9	0.9	0.6	(0.2)	0.5	(0.1)
Calving problems	26.3	19.3	13.8	(0.5)	12.5	(0.6)
Mastitis*	N/A	N/A	N/A	()	12.8	(0.5)
Lameness/injury**	N/A	N/A	N/A	()	10.5	(0.5)
Other diseases***	N/A	N/A	15.4	(0.7)	8.3	(1.4)
Other causes***	41.4	37.8	15.3	(1.0)	6.2	(0.6)
Unknown causes***	N/A	N/A	13.0	(0.5)	10.5	(0.7)
Total	100.0	100.0	100.0		100.0	

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

<sup>1</sup>Standard errors not available for 1991 and 1995. \*Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000. \*\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

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

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

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

\*Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000.

\*\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

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

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

<sup>1</sup>Standard errors not available for 1991 and 1995. \*Mastitis included in "other causes" in 1991 and 1995 and in "other diseases" in 2000. \*\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

#### 3. Cause of loss by size of operation-2005

The percentage of losses due to calving problems decreased as the size of operation increased, ranging from 18.9 percent on operations with 1 to 49 cows to 10.7 percent on operations with 500 or more cows.

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

#### Percent Nonpredator Loss

	1-49	50-99	100-499	500 or More
Nonpredator Cause	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	8.2 (1.0)	7.4 (1.0)	7.1 (0.7)	6.8 (0.8)
Respiratory problems (pneumonia, shipping fever, etc.)	12.9 (1.3)	14.8 (1.7)	26.6 (4.5)	21.0 (1.9)
Metabolic problems (milk fever, grass tetany, etc.)	1.3 (0.3)	1.8 (0.4)	0.7 (0.1)	1.1 (0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	8.0 (0.9)	10.4 (1.5)	10.0 (1.4)	8.0 (0.8)
Theft (stolen)	0.4 (0.1)	0.8 (0.3)	1.1 (0.4)	2.6 (1.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	2.3 (0.9)	2.1 (0.7)	1.8 (0.3)	3.3 (0.4)
Calving problems	18.9 (1.2)	12.6 (1.0)	11.0 (1.1)	10.7 (0.9)
Mastitis	0.6 (0.2)	0.5 (0.2)	0.4 (0.1)	0.6 (0.2)
Lameness/injury	4.0 (0.5)	3.4 (0.5)	2.6 (0.4)	3.7 (0.5)
Other diseases	4.7 (0.7)	5.5 (0.9)	5.8 (1.0)	6.0 (0.9)
Other	22.4 (1.6)	23.7 (1.7)	16.5 (1.5)	14.0 (1.6)
Unknown	16.3 (1.2)	17.0 (1.5)	16.4 (1.6)	22.2 (2.1)
Total	100.0	100.0	100.0	100.0

Respiratory problems accounted for a higher percentage of losses on operations with 1-29 cows (31.6 percent) than on all other operation sizes. Mastitis accounted for 15.0 of nonpredator losses on operations with 500 or more cows and 3.9 percent of losses on operations with 1 to 29 cows.

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

		Р	ercent Non	predator Los	SS	
		Size o	of Operation	(Number of	Cows)	
	1-29	30-49	50-99	100-199	200-499	500 or More
Nonpredator Cause	Std. Pct. Error					
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	14.1 (5.0)	13.7 (3.1)	10.0 (1.1)	15.1 (2.9)	12.2 (1.0)	12.2 (0.8)
Respiratory problems (pneumonia, shipping fever, etc.)	31.6 (5.4)	8.3 (2.0)	8.9 (1.1)	13.3 (1.3)	11.6 (1.0)	17.0 (1.5)
Metabolic problems (milk fever, grass tetany, etc.)	9.2 (3.9)	10.3 (1.6)	10.7 (1.2)	8.9 (1.3)	11.2 (1.3)	9.5 (0.7)
Weather-related causes (chilling, drowning, lightning, etc.)	1.1 (0.7)	1.0 (0.5)	2.3 (0.7)	2.1 (0.4)	2.0 (0.4)	2.0 (0.4)
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.3 (0.3)	0.0 (0.0)	0.0 (0.0)	0.1 (0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.3 (0.2)	0.5 (0.3)	1.5 (0.6)	0.4 (0.2)	0.4 (0.1	0.2 (0.1)
Calving problems	9.0 (2.8)	19.2 (2.4)	17.0 (2.2)	14.0 (1.1)	13.3 (1.3)	9.9 (0.7)
Mastitis	3.9 (2.0)	9.6 (2.0)	10.6 (1.5)	9.9 (1.0)	13.0 (1.1)	15.0 (0.9)
Lameness/injury	8.7 (2.3)	11.2 (1.8)	13.2 (1.3)	10.2 (1.0)	13.0 (1.3)	9.0 (0.6)
Other diseases	7.8 (3.9)	9.9 (2.6)	8.1 (1.5)	7.0 (1.0)	9.3 (1.8)	8.4 (2.7)
Other	8.7 (3.0)	7.2 (1.4)	7.3 (1.2)	9.3 (1.4)	5.3 (1.2)	5.0 (1.0)
Unknown	5.6 (2.9)	9.1 (1.8)	10.1 (1.6)	9.8 (1.3)	8.7 (1.3)	11.7 (1.3)
Total	100.0	100.0	100.0	100.0	100.0	100.0

Almost one-fifth of losses on mixed operations with 500 or more cows (19.3 percent) were due to metabolic problems, while only 2.5 percent of losses on operations 1 to 99 cows were due to metabolic problems.

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

#### Percent Nonpredator Loss

	Size of C	peration (Numbe	er of Cows)
	1-99	100-499	500 or More
Nonpredator Cause	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	9.2 (2.8)	7.4 (1.4)	7.1 (3.2)
Respiratory problems (pneumonia, shipping fever, etc.)	14.4 (4.5)	16.3 (2.3)	14.8 (7.4)
Metabolic problems (milk fever, grass tetany, etc.)	2.5 (1.0)	8.2 (1.4)	19.3 (4.0)
Weather-related causes (chilling, drowning, lightning, etc.)	7.2 (2.5)	4.8 (1.2)	0.9 (0.5)
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.5 (1.4)	1.3 (0.5)	0.0 (0.0)
Calving problems	21.6 (8.3)	16.1 (2.1)	5.9 (2.7)
Mastitis	3.4 (1.3)	8.6 (2.2)	27.2 (9.5)
Lameness/injury	8.0 (2.3)	10.8 (2.6)	4.5 (2.3)
Other diseases (mastitis, etc.)	5.2 (1.7)	6.9 (2.6)	1.9 (1.0)
Other	6.5 (2.0)	9.6 (2.0)	12.2 (4.8)
Unknown	20.5 (11.2	) 10.0 (2.5)	6.0 (3.1)
Total	100.0	100.0	100.0

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

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

#### Percent Nonpredator Loss

	1-9	99	100-	-499	500·	-999	1,000 or More		
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	9.3	(2.2)	5.5	(1.1)	10.6	(2.0)	24.0	(3.8)	
Respiratory problems (pneumonia, shipping fever, etc.)	33.9	(5.3)	66.1	(4.3)	66.3	(3.6)	55.5	(3.5)	
Metabolic problems (milk fever, grass tetany, etc.)	2.1	(0.8)	0.9	(0.5)	1.0	(0.4)	0.2	(0.1)	
Weather-related causes (chilling, drowning, lightning, etc.)	12.5	(7.7)	2.5	(0.9)	5.4	(1.5)	5.1	(1.2)	
Theft (stolen)	0.6	(0.6)	2.4	(1.7)	0.7	(0.6)	0.0	(0.0)	
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.9	(1.1)	0.0	(0.0)	0.5	(0.3)	0.2	(0.1)	
Calving problems	8.8	(3.6)	0.5	(0.3)	0.4	(0.3)	0.0	(0.0)	
Mastitis	0.3	(0.1)	0.0	(0.0)	0.1	(0.0)	0.0	(0.0)	
Lameness/injury	9.0	(5.2)	3.2	(0.9)	3.2	(0.9)	2.6	(0.7)	
Other diseases	3.6	(1.3)	5.2	(3.2)	3.5	(1.7)	3.8	(1.1)	
Other	9.8	(2.3)	4.8	(1.9)	2.4	(0.9)	0.4	(0.2)	
Unknown	8.2	(2.0)	8.9	(2.7)	5.9	(1.8)	8.2	(1.4)	
Total	100.0		100.0		100.0		100.0		

Size of Operation (Number of Cattle and Calves)

#### 4. Cause of loss by region-2005

On beef operations, the percentage of losses due to respiratory problems ranged from 8.5 percent in the Southeast region to 29.1 in the North Central region. The percentage of losses due to weather-related causes ranged from 4.7 percent in the Northwest region to 16.7 percent in the Southeast region.

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

	Percent Nonpredator Loss											
						Reg	ion					
	Nortl Centr		North	neast	North	west	South Central		Southeast		Southwest	
Nonpredator Cause	-	Std. Frror	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, entero-												
toxemia, acidosis, etc.)	9.4 (	1.0)	9.9	(1.2)	9.2	(1.2)	6.0	(0.9)	7.0	(1.0)	9.6	(1.5)
Respiratory problems (pneumonia, shipping fever, etc.)	29.1 (2	2.1)	16.3	(2.0)	14.5	(1.6)	20.0	(3.6)	8.5	(1.1)	17.0	(2.0)
Metabolic problems (milk fever, grass tetany, etc.)	0.7 (	0.3)	1.8	(0.4)	2.5	(1.0)	0.9	(0.2)	1.7	(0.4)	0.3	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	11.2 (	1.0)	6.9	(1.0)	4.7	(0.6)	7.5	(0.9)	16.7	(2.5)	5.8	(0.9)
Theft (stolen)	0.5 (			(0.1)		(0.4)		(0.4)		(0.0)		(1.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8 (	0.3)	1.8	(0.6)	4.5	(0.6)	1.7	(0.7)	1.9	(0.5)	8.5	(1.8)
Calving problems	7.8 (	1.7)	17.5	(1.5)	7.1	(0.8)	15.7	(1.2)	18.5	(1.3)	10.6	(1.7)
Mastitis	0.3 (	0.1)	0.2	(0.1)	0.3	(0.2)	0.4	(0.1)	0.9	(0.3)	1.4	(0.6)
Lameness/injury	5.0 (	0.7)	4.8	(0.6)	4.8	(0.7)	2.2	(0.3)	4.2	(0.8)	3.1	(0.6)
Other diseases	6.5 (	1.4)	3.5	(0.5)	7.7	(2.3)	5.7	(0.8)	3.7	(0.8)	4.4	(0.8)
Other	14.4 (	1.3)	16.8	(1.4)	17.8	(1.5)	22.4	(1.7)	21.8	(1.5)	15.7	(1.6)
Unknown	14.3 (	1.6)	20.2	(1.7)	26.0	(3.0)	16.4	(1.4)	15.0	(1.3)	20.3	(2.0)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

On dairy operations, the percentage of losses due to mastitis ranged from 7.7 percent in the South Central region to 16.9 percent in the Southwest region.

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

	Percent Nonpredator Loss											
						Reg	gion					
		orth htral	Nort	heast	North	nwest		uth htral	Sout	heast	South	nwest
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	14 7	(2.0)	11.2	(0.8)	10.6	(1.7)	10.7	(1.8)	16.3	(6.9)	14.2	(1.0)
Respiratory problems (pneumonia, shipping fever, etc.)		(1.4)		(0.8)		(5.2)		(2.4)		(1.2)		(1.6)
Metabolic problems (milk fever, grass tetany, etc.)	8.8	(1.2)	11.3	(0.8)	10.5	(1.3)	5.6	(1.2)	7.2	(1.2)	10.0	(1.1)
Weather-related causes (chilling, drowning, lightning, etc.)	1.6	(0.4)	1.6	(0.3)	0.2	(0.1)	2.5	(0.7)	5.5	(0.9)	2.7	(0.8)
Theft (stolen)	0.0	(0.0)	0.1	(0.1)	0.2	(0.1)	0.5	(0.4)	0.0	(0.0)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.3	(0.1)	0.7	(0.2)	0.0	(0.0)	1.2	(0.5)	0.1	(0.1)	0.1	(0.0)
Calving problems	12.7	(1.1)	12.9	(0.7)	8.9	(1.5)	16.2	(3.8)	14.6	(1.6)	11.2	(1.0)
Mastitis	11.8	(1.1)	13.1	(0.9)	9.5	(1.4)	7.7	(1.5)	12.3	(1.7)	16.9	(1.3)
Lameness/injury	11.6	(1.6)	12.9	(0.7)	9.1	(1.3)	6.2	(1.2)	10.8	(1.5)	8.2	(0.8)
Other diseases	6.3	(1.0)	8.0	(0.9)	5.9	(1.0)	20.5	(10.3)	4.5	(1.1)	6.1	(1.4)
Other	11.2	(1.8)	5.1	(0.5)	3.2	(0.6)	10.8	(2.7)	6.0	(1.1)	5.2	(1.9)
Unknown	9.0	(2.0)	11.2	(1.2)	22.9	(3.6)	3.5	(0.8)	11.9	(2.2)	6.7	(0.9)
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 22.5 percent of losses in the Southwest region and 2.9 percent of losses in the North Central region.

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

		Percent Nonpredator Loss											
			Reg	jion									
	North Central	Northeast	Northwest	South Central	Southeast	Southwest							
Nonpredator Cause	Std. Pct. Error		Std. Pct. Error	Std. Pct. Error	Std. Pct. Error	Std. Pct. Error							
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	8.0 (3.2)	9.9 (2.1)	9.3 (1.8)	9.9 (2.7)	8.6 (1.9)	3.9 (2.7)							
Respiratory problems (pneumonia, shipping fever, etc.)	29.8 (10.0		16.8 (3.5)	21.1 (4.9)	17.8 (4.1)	4.4 (3.1)							
Metabolic problems (milk fever, grass tetany, etc.)	2.9 (1.1)	8.0 (1.9)	12.4 (4.2)	10.4 (3.6)	4.6 (1.3)	22.5 (3.7)							
Weather-related causes (chilling, drowning, lightning, etc.)	9.3 (3.1)	2.7 (0.9)	2.8 (0.9)	3.2 (1.7)	9.0 (2.8)	0.2 (0.2)							
Theft (stolen)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)	0.2 (0.2)							
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.4 (0.4)	0.9 (0.6)	0.4 (0.4)	2.4 (1.7)	0.7 (0.6)	0.1 (0.0)							
Calving problems	9.2 (3.1)	13.5 (3.0)	11.3 (3.0)	24.4 (9.1)	22.0 (3.4)	4.7 (3.1)							
Mastitis	4.4 (1.2)	8.5 (2.0)	7.9 (2.9)	8.5 (4.1)	7.6 (1.5)	35.3 (9.1)							
Lameness/injury	8.2 (2.3)	13.1 (3.7)	11.2 (3.7)	4.5 (1.5)	7.9 (1.9)	3.3 (2.8)							
Other diseases	9.4 (5.3)	4.0 (1.2)	4.2 (1.8)	3.4 (1.4)	2.6 (0.8)	2.8 (2.1)							
Other	10.4 (3.9)	6.2 (1.6)	7.0 (2.3)	7.6 (2.7)	7.6 (2.2)	15.7 (4.9)							
Unknown	8.0 (3.3)	19.3 (9.9)	16.7 (5.9)	4.6 (1.4)	11.6 (2.0)	6.9 (5.5)							
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 34.7 percent in the Southwest region to 62.3 percent in the North Central region.

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

		Percent Nonpredator Loss											
						Reg	jion						
		rth Itral	North	neast	North	Northwest		South Central		heast	Southwest		
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	
Digestive problems (bloat, scours, parasites, entero-													
toxemia, acidosis, etc.)	13.9	(1.4)	13.7	(2.4)	10.3	(1.7)	23.9	(5.2)	1.9	(0.8)	17.3	(2.3)	
Respiratory problems (pneumonia, shipping fever, etc.)	62.3	(2.4)	58.6	(4.3)	45.5	(4.6)	56.3	(5.0)	53.2	(12.4)	34.7	(2.1)	
Metabolic problems (milk fever, grass tetany, etc.)	0.6	(0.3)	2.0	(0.8)	0.1	(0.1)	0.4	(0.2)	4.2	(3.3)	0.1	(0.1)	
Weather-related causes (chilling, drowning, lightning, etc.)	11.3	(2.2)	2.6	(0.8)	1.5	(0.4)	6.1	(2.9)	3.7	(2.2)	0.5	(0.2)	
Theft (stolen)	0.0	(0.0)	0.0	(0.0)	0.1	(0.1)	0.6	(0.4)	3.6	(3.4)	0.0	(0.0)	
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.4	(0.3)	1.0	(1.0)	0.9	(0.4)	0.2	(0.2)	4.8	(4.8)	0.0	(0.0)	
Calving problems	0.4	(0.2)	0.8	(0.4)	0.9	(0.5)	1.9	(1.1)	10.0	(8.1)	0.1	(0.1)	
Mastitis	0.1	(0.0)	0.5	(0.3)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	
Lameness/injury	3.2	(0.5)	4.0	(0.7)	6.6	(2.6)	2.9	(1.8)	0.7	(0.3)	6.4	(1.9)	
Other diseases	1.9	(0.5)	6.1	(4.5)	5.5	(1.5)	1.2	(0.5)	0.1	(0.1)	15.3	(2.7)	
Other	1.4	(0.4)	3.7	(1.4)	7.1	(3.9)	2.7	(0.8)	6.7	(2.5)	0.7	(0.3)	
Unknown	4.5	(0.9)	7.0	(1.7)	21.5	(3.7)	3.8	(1.3)	11.1	(7.3)	24.9	(2.9)	
Total	100.0		100.0		100.0		100.0		100.0		100.0		

## C. Nonpredator Calf Death Loss

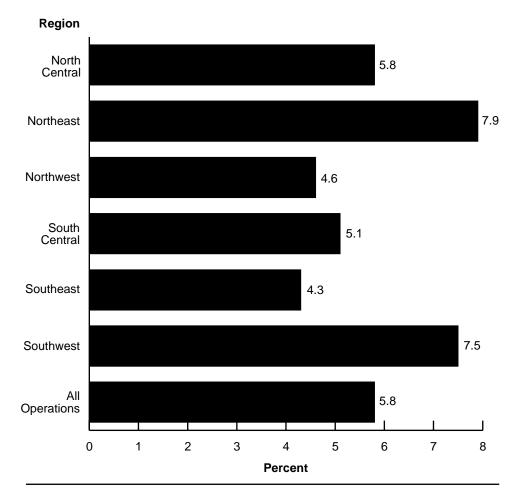
#### 1. Losses as a percentage of calf crop-2005

Overall, 5.8 percent of the calf crop was lost to nonpredator causes. Losses were highest in the Northeast and Southwest regions (7.9 and 7.5 percent of calf crop, respectively).

a. Percentage of calf crop (born during 2005) lost,\* by region:

	Percent Calf Crop*							
Region	Percent	Standard Error						
North Central	5.8	(0.1)						
Northeast	7.9	(0.4)						
Northwest	4.6	(0.1)						
South Central	5.1	(0.2)						
Southeast	4.3	(0.1)						
Southwest	7.5	(1.1)						
All operations	5.8	(0.1)						

\*Calf deaths in 2005 / 2005 calf crop x 100.



Percentage of 2005 Calf Crop lost, by Region

On beef operations, 4.5 percent of the calf crop was lost to nonpredator causes in 2005. The lowest percentage of losses (3.0 percent) occurred on operations with 500 or more cows.

b. For *beef* operations, percentage of calf crop (born during 2005) lost\* by region and by size of operation:

#### **Percent Calf Crop**

	1-49 50-99 100-499 500 or More						-	All ations		
Region	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	7.3	(0.6)	5.7	(0.3)	4.0	(0.1)	3.2	(0.2)	4.7	(0.1)
Northeast	6.4	(0.3)	5.5	(0.4)	4.6	(0.3)	3.0	(0.2)	5.7	(0.2)
Northwest	6.2	(0.8)	4.5	(0.4)	3.5	(0.1)	3.6	(0.2)	3.9	(0.1)
South Central	5.4	(0.3)	4.5	(0.2)	4.6	(0.3)	2.8	(0.4)	4.6	(0.1)
Southeast	4.4	(0.2)	4.0	(0.2)	3.3	(0.2)	2.1	(0.1)	3.8	(0.1)
Southwest	8.1	(1.3)	5.1	(0.6)	3.9	(0.3)	2.9	(0.3)	4.3	(0.2)
All Operations	5.7	(0.2)	4.8	(0.1)	4.1	(0.1)	3.0	(0.1)	4.5	(0.1)

#### Size of Operation (Number of Cows)

\*Calf deaths in 2005 / 2005 calf crop x 100.

Overall, 7.1 percent of the calf crop on dairy operations was lost to nonpredator causes in 2005. The percentage of calf crop lost varied across regions, ranging from 4.5 percent in the Southwest region to 10.5 percent in the North Central region.

c. For *dairy* operations, percentage of calf crop (born during 2005) lost\* by region and by size of operation:

#### **Percent Calf Crop**

				5	Size o	t Opei	ration	(Num	ber of	Cows	5)			
	1-	29	30	-49	50	-99	100	-199	200	-499		) or ore		ll ations
Region	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.	Pct.	Std. Err.		Std. Err.
North Central	10.1	(2.8)	11.1	(1.5)	11.8	(0.8)	12.0	(1.1)	8.9	(0.8)	7.7	(1.4)	10.5	(0.5)
Northeast	12.1	(2.4)	7.7	(0.5)	9.2	(0.4)	8.6	(0.5)	6.7	(0.4)	4.7	(0.3)	7.7	(0.2)
Northwest	5.9	(2.8)	11.4	(1.4)	8.8	(0.9)	8.1	(0.7)	6.5	(0.5)	5.5	(0.3)	5.9	(0.3)
South Central	3.0	(1.5)	8.3	(1.8)	10.9	(2.0)	9.8	(1.0)	9.6	(1.1)	7.6	(0.7)	8.4	(0.6)
Southeast	**		12.3	(2.3)	9.5	(1.1)	11.5	(2.6)	8.9	(0.7)	6.8	(0.5)	8.5	(0.7)
Southwest	**		**		11.0	(1.2)	8.6	(1.2)	6.1	(0.5)	4.3	(0.3)	4.5	(0.3)
All Operations	9.5	(1.5)	8.3	(0.5)	9.6	(0.4)	9.4	(0.4)	7.1	(0.3)	5.0	(0.2)	7.1	(0.1)

Size of Operation (Number of Cowe)

\*Calf deaths in 2005 / 2005 calf crop x 100. \*\*Too few operations to report.

Overall, 8.7 percent of the calf crop on mixed operations was lost to nonpredator causes.

d. For *mixed* operations, percentage of calf crop (born during 2005) lost\* by region and by size of operation:

#### **Percent Calf Crop**

	1-9	99	100	-499	500 o	r More		All ations
Region	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
North Central	14.7	(3.1)	8.8	(1.2)	8.7	(1.8)	10.6	(1.3)
Northeast	12.4	(3.3)	9.0	(1.1)	7.0	(1.3)	10.0	(1.4)
Northwest	**		7.2	(1.8)	4.9	(0.5)	6.1	(0.9)
South Central	8.7	(2.8)	7.9	(1.0)	6.8	(1.9)	7.6	(1.0)
Southeast	10.1	(3.5)	7.3	(0.8)	5.6	(0.6)	6.9	(0.6)
Southwest	**		8.0	(1.7)	8.0	(2.7)	8.0	(2.1)
All Operations	12.2	(2.0)	8.3	(0.5)	7.1	(1.3)	8.7	(0.6)

Size of Operation (Number of Cows)

\*Calf deaths in 2005 / 2005 calf crop x 100.

\*\*Too few operations to report.

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

Overall, 11.6 percent of calf inventory was lost to nonpredator causes on "other" operations. On operations with fewer than 100 head, 25.1 percent of inventory was lost, compared to 3.9 percent of inventory on operations with 500-999 head. Regionally, losses ranged from 8.1 percent of calf inventory in the South Central region to 17.2 percent of inventory in the North Central region.

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

#### **Percent Inventory**

	1-99	100-499	500-999	1,000 or More	All Operations
Region	Std. Pct. Error				
North Central	26.3 (6.2)	8.2 (2.4)	10.5 (3.6)	24.2 (14.9)	17.2 (3.2)
Northeast	34.9 (15.7)	8.4 (1.4)	3.5 (0.8)	1.9 (1.5)	9.1 (4.1)
Northwest	29.2 (11.0)	13.9 (4.4)	5.0 (3.3)	13.5 (2.1)	14.5 (2.0)
South Central	14.8 (4.1)	11.7 (4.5)	3.1 (1.0)	7.3 (1.6)	8.1 (1.3)
Southeast	14.8 (5.7)	7.8 (3.8)	2.1 (0.7)	8.9 (3.3)	10.6 (2.4)
Southwest	26.3 (13.4)	16.7 (8.0)	3.3 (1.7)	16.0 (4.1)	16.1 (3.8)
All Operations	25.1 (6.3)	,	. ,	. ,	

Size of Operation (Number of Cattle and Calves)

\*2005 death loss divided by end-of-year (January 1, 2006) inventory of calves 500 lbs or less X100.

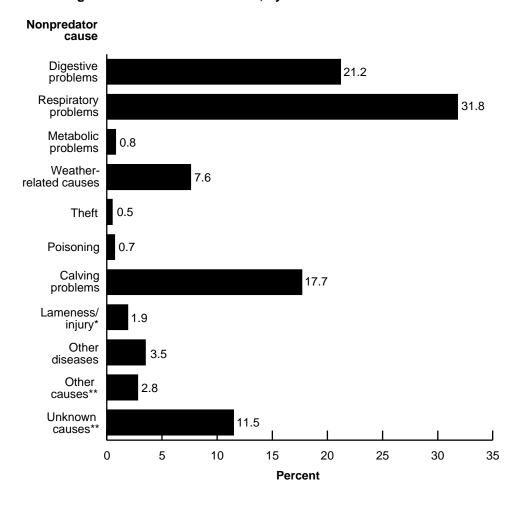
#### 2. Cause of loss-1991, 1995, 2000, and 2005

The highest percentages of nonpredator calf losses in 2005 were due to respiratory problems (31.8 percent) and digestive problems (21.2 percent).

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

	Percent Nonpredator Loss									
Nonpredator Cause	1991	1995	2000	2005						
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	26.0	25.2	19.8	21.2						
Respiratory problems (pneumonia, shipping fever, etc.)	35.2	29.6	30.0	31.8						
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	0.8	0.8						
Weather-related causes (chilling, drowning, lightning, etc.)	6.2	10.7	10.6	7.6						
Theft (stolen)	0.6	0.4	0.4	0.5						
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8	0.6	0.5	0.7						
Calving problems	13.2	15.1	16.7	17.7						
Lameness/injury*	N/A	N/A	N/A	1.9						
Other diseases	N/A	N/A	3.2	3.5						
Other causes**	18.0	18.4	3.2	2.8						
Unknown causes**	N/A	N/A	14.8	11.5						
Total	100.0	100.0	100.0	100.0						

Lameness/injury included with other causes in 1991, 1995, and 2000. Other causes and unknown causes combined in 1991 and 1995.



#### Percentage of 2005 Calf Death Losses, by Cause

\*Lameness/injury included with other causes in 1991, 1995, and 2000. \*\*Other causes and unknown causes combined in 1991 and 1995. On beef operations in 2005, the two most common causes of calf losses were respiratory problems and calving problems (27.7 and 24.2 percent of losses, respectively).

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

		Perc	ent Nonp	oredator	Loss	
Nonpredator Cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. Error	2005	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	19.2	17.4	13.8	(0.5)	13.0	(0.5)
Respiratory problems (pneumonia, shipping fever, etc.)	25.6	23.5	23.2	(0.7)	27.7	(0.8)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	0.7	(0.1)	0.6	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	10.8	14.7	13.5	(0.5)	10.2	(0.5)
Theft (stolen)	1.0	0.4	0.6	(0.1)	0.7	(0.2)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	1.2	0.8	0.7	(0.1)	0.9	(0.1)
Calving problems	20.4	20.4	23.5	(0.6)	24.2	(0.7)
Lameness/injury*	N/A	N/A	N/A	()	1.7	(0.2)
Other diseases**	N/A	N/A	2.1	(0.3)	3.5	(0.3)
Other causes**	21.8	22.8	3.5	(0.3)	3.5	(0.3)
Unknown causes**	N/A	N/A	18.4	(0.6)	14.0	(0.5)
Total	100.0	100.0	100.0		100.0	

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

\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

On dairy operations in 2005, digestive and respiratory problems were the most common causes of calf loss (35.8 and 33.2 percent of losses, respectively).

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

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

<sup>1</sup>Standard errors not available for 1991 and 1995. \*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

On mixed operations in 2005, digestive and respiratory problems were the most common causes of calf loss (28.9 and 30.0 percent of losses, respectively).

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

	Percent Nonpredator Loss										
Nonpredator Cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. Error	2005	Std. Error					
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	37.5	41.3	31.0	(2.1)	28.9	(4.6)					
Respiratory problems (pneumonia, shipping fever, etc.) Metabolic problems (milk fever, grass tetapy, etc.)	34.9 N/A	41.5 N/A	34.1	(2.0)	30.0	(3.9)					
tetany, etc.) Weather-related causes (chilling, drowning, lightning, etc.)	4.1	3.1	6.8	(0.7)	7.1	(0.7)					
Theft (stolen)	0.4	0.0	0.0	(0.0)	0.1	(0.1)					
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.2	0.0	0.0	(0.0)	0.0	(0.0)					
Calving problems	11.3	5.3	10.7	(1.4)	11.8	(1.9)					
Lameness/injury*	N/A	N/A	N/A	()	3.1	(1.8)					
Other diseases**	N/A	N/A	1.3	(0.5)	3.4	(1.1)					
Other causes**	N/A	N/A	1.8	(0.6)	2.3	(0.9)					
Unknown causes**	11.6	8.8	12.8	(2.4)	12.1	(3.4)					
Total	100.0	100.0	100.0		100.0						

<sup>1</sup>Standard errors not available for 1991 and 1995. \*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.

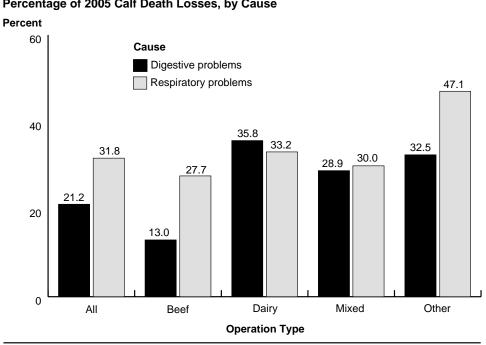
On "other" operations, digestive and respiratory problems accounted for the highest percentage of calf losses (32.5 and 47.1 percent of losses, respectively). The percentage of calf losses due to respiratory causes was higher on other operations than on beef, dairy, or mixed operations.

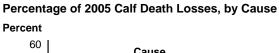
		Per	cent Nonp	redator L	.055	
Nonpredator Cause	1991 <sup>1</sup>	1995 <sup>1</sup>	2000	Std. Error	2005	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	16.0	27.7	15.1	(3.3)	32.5	(5.4)
Respiratory problems (pneumonia, shipping fever, etc.)	65.9	61.7	56.5	(9.2)	47.1	(3.0)
Metabolic problems (milk fever, grass tetany, etc.)	N/A	N/A	0.3	(0.2)	0.8	(0.4)
Weather-related causes (chilling, drowning, lightning, etc.)	3.1	2.5	5.6	(2.3)	4.5	(1.3)
Theft (stolen)	0.5	<0.01	0.0	(0.0)	0.2	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.4	<0.01	0.3	(0.2)	0.8	(0.5)
Calving problems	0.7	1.8	1.7	(0.5)	1.8	(0.4)
Lameness/injury*	N/A	N/A	N/A	()	3.4	(1.5)
Other diseases**	N/A	N/A	9.9	(5.3)	2.3	(0.7)
Other causes**	13.4	6.3	2.5	(1.2)	1.0	(0.4)
Unknown causes**	N/A	N/A	8.1	(2.9)	5.6	(1.3)
Total	100.0	100.0	100.0		100.0	

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

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

\*Lameness/injury included in "other causes" in 1991, 1995, and 2000. \*\* "Other diseases" and "unknown causes" included in "other causes" in 1991 and 1995.





#### 3. Cause of loss by size of operation-2005

Calving problems accounted for 31.4 percent of losses on beef operations with 1 to 49 cows and 19.5 percent of losses on operations with 500 or more cows.

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

#### Percent Nonpredator Loss

	1-	49	50·	-99	100	-499	500 oi	More
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	11.2	(0.9)	14.7	(1.1)	13.1	(0.8)	16.0	(1.8)
Respiratory problems (pneumonia, shipping fever, etc.)	19.7	(1.2)	26.8	(1.4)	35.5	(1.6)	30.6	(1.8)
Metabolic problems (milk fever, grass tetany, etc.)	0.8	(0.2)	0.5	(0.2)	0.4	(0.1)	0.5	(0.2)
Weather-related causes (chilling, drowning, lightning, etc.)	8.7	(0.7)	10.8	(1.2)	11.0	(0.8)	10.8	(1.4)
Theft (stolen)	0.8	(0.3)	0.7	(0.3)	0.3	(0.1)	2.2	(1.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.8	(0.2)	0.7	(0.2)	1.0	(0.2)	1.2	(0.3)
Calving problems	31.4	(1.4)	20.6	(1.2)	20.4	(0.9)	19.5	(2.6)
Lameness/injury	2.7	(0.4)	1.0	(0.3)	1.2	(0.2)	1.0	(0.2)
Other diseases	3.5	(0.5)	5.1	(1.2)	2.7	(0.4)	3.6	(0.8)
Other	5.1	(0.7)	3.8	(0.7)	2.1	(0.3)	2.1	(0.8)
Unknown	15.3	(0.9)	15.3	(1.2)	12.3	(0.9)	12.5	(1.3)
Total	100.0		100.0		100.0		100.0	

The percentage of calf losses due to respiratory problems was higher on operations with 500 or more cows than on operations with 1-29 cows.

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

#### Percent Nonpredator Loss

	1-:	29	30-	49	50-	99	100·	·199	200 <sup>.</sup>	499	500 or	More
Cause	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.)	34.5	(8.1)	35.7	(3.5)	38.6	(2.1)	40.6	(3.0)	38.9	(2.0)	29.9	(1.5)
Respiratory problems (pneumonia, shipping fever, etc.)	20.2	(4.8)	31.9	(3.0)	31.7	(2.1)	33.1	(2.3)	35.1	(1.7)	35.3	(1.4)
Metabolic problems (milk fever, grass tetany, etc.)	0.8	(0.8)	0.0	(0.0)	1.9	(1.5)	0.6	(0.2)	0.9	(0.3)	2.6	(0.8)
Weather-related causes (chilling, drowning, lightning, etc.)	1.3	(0.6)	4.4	(1.4)	1.5	(0.5)	2.2	(0.5)	1.5	(0.3)	2.6	(0.4)
Theft (stolen)	0.0	(0.0)	0.0	(0.0)	0.1	(0.1)	0.0	(0.0)	0.0	(0.0)	0.1	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)		(0.7)	0.1	(0.1)	0.2	(0.1)	1.2	(1.1)	0.3	(0.3)	0.0	(0.0)
Calving problems	10.5	(3.2)	13.3	(2.2)	14.2	(1.7)	9.0	(1.2)	9.0	(1.2)	8.4	(0.8)
Lameness/injury	1.4	(0.7)	2.6	(0.8)	0.9	(0.2)	1.0	(0.2)	1.6	(0.4)	1.8	(0.3)
Other diseases	13.3	(10.5)	2.6	(1.0)	3.0	(0.7)	6.3	(2.4)	4.5	(1.0)	3.6	(0.4)
Other	13.6	(11.5)	1.1	(0.6)	1.4	(0.6)	0.7	(0.3)	0.5	(0.2)	2.6	(1.3)
Unknown	3.7	(1.9)	8.3	(1.7)	6.5	(0.9)	5.3	(0.9)	7.7	(1.5)	13.1	(1.5)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

Across all sizes of mixed operations, at least one-quarter of calf losses were due to respiratory problems. Operations with 500 or more cows had a disproportionately high percentage of weather-related losses.

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

#### Percent Nonpredator Loss

			poration			.0)
	1.	-99	100	-499	500 o	r More
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	35.0	(10.4)	32.4	(3.6)	17.1	(6.6)
Respiratory problems (pneumonia, shipping fever, etc.)	30.7	(6.4)	32.3	(3.0)	25.4	(10.2)
Metabolic problems (milk fever, grass tetany, etc.)	0.2	(0.2)	0.6	(0.2)	3.1	(2.7)
Weather-related causes (chilling, drowning, lightning, etc.)	1.4	(1.0)	2.2	(0.9)	20.9	(11.9)
Theft (stolen)	0.1	(0.1)	0.0	(0.0)	0.4	(0.3)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0	(0.0)	0.1	(0.1)	0.0	(0.0)
Calving problems	10.1	(3.3)	11.3	(2.1)	14.4	(4.1)
Lameness/injury	1.0	(0.5)	0.8	(0.4)	9.0	(4.5)
Other diseases	3.7	(2.8)	4.1	(1.6)	1.8	(0.8)
Other	1.9	(1.5)	3.4	(1.6)	0.7	(0.7)
Unknown	15.9	(9.1)	12.8	(4.1)	7.2	(2.9)
Total	100.0		100.0		100.0	

For other operations, the causes of calf loss were similar across operation sizes.

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

#### **Percent Nonpredator Loss**

	1-9	99	100·	-499	500-	999	1,00 Mc	
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, enterotoxemia, acidosis, etc.)	21.0	(3.9)	38.0	(5.7)	20.3	(4.4)	38.6	(8.8)
Respiratory problems (pneumonia, shipping fever, etc.)	46.6	(3.9)	53.4	(5.2)	58.4	(6.2)	44.5	(4.7)
Metabolic problems (milk fever, grass tetany, etc.)	1.2	(0.9)	2.1	(2.1)	0.8	(0.5)	0.1	(0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	6.7	(1.4)	1.2	(0.8)	2.0	(0.9)	4.5	(2.2)
Theft (stolen)	0.1	(0.1)	0.0	(0.0)	2.8	(2.6)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	2.7	(1.3)	0.0	(0.0)	0.4	(0.4)	0.0	(0.0)
Calving problems	5.1	(1.6)	0.3	(0.2)	0.4	(0.3)	0.4	(0.2)
Lameness/injury	3.9	(1.9)	0.8	(0.5)	0.5	(0.3)	4.1	(2.7)
Other diseases	2.9	(0.8)	0.4	(0.3)	7.8	(3.8)	2.2	(1.3)
Other	1.8	(0.9)	1.0	(0.8)	0.0	(0.0)	0.6	(0.5)
Unknown	8.0	(2.6)	2.8	(1.1)	6.6	(2.5)	5.0	(2.1)
Total	100.0		100.0		100.0		100.0	

Size of Operation (Number of Cattle and Calves)

#### 4. Cause of loss by region-2005

On beef operations, the percentage of calf losses due to unknown causes ranged from 7.8 percent in the North Central region to 20.4 percent in the Southeast region.

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

		Percent Nonpredator Loss										
						Reg	jion					
		orth htral	Nortl	neast	Nortl	hwest		uth htral	Sout	heast	Sout	hwest
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	18.1	(1.2)	15.3	(1.3)	18.1	(1.7)	8.9	(0.8)	8.6	(0.9)	15.7	(2.1)
Respiratory problems (pneumonia, shipping fever, etc.)	29.0	(1.3)	22.5	(1.8)	25.8	(1.6)	33.0	(1.8)	19.6	(1.5)	23.8	(2.2)
Metabolic problems (milk fever, grass tetany, etc.)	0.4	(0.2)	0.9	(0.2)	0.4	(0.1)	0.4	(0.1)	1.2	(0.4)	0.3	(0.1)
Weather-related causes (chilling, drowning, lightning, etc.)	12.4	(1.1)	10.8	(1.3)	13.8	(1.2)	7.3	(0.7)	11.2	(1.4)	10.4	(1.6)
Theft (stolen)	0.1	(0.1)	0.8	(0.6)	0.7	(0.2)	0.7	(0.2)	0.6	(0.3)	2.9	(1.4)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.3	(0.1)	0.7	(0.3)	1.4	(0.3)	1.1	(0.2)	0.7	(0.3)	1.4	(0.4)
Calving problems	24.0	(1.3)	22.8	(2.0)	22.2	(1.5)	24.4	(1.3)	27.6	(1.5)	24.3	(3.1)
Lameness/injury	1.1	(0.2)	2.2	(0.5)	1.6	(0.4)	1.8	(0.3)	2.4	(0.5)	0.6	(0.2)
Other diseases	3.3	(0.8)	3.3	(0.6)	2.8	(0.8)	3.8	(0.7)	3.4	(0.6)	4.4	(1.3)
Other	3.5	(0.7)	2.7	(0.6)	2.7	(0.4)	3.8	(0.7)	4.3	(0.7)	2.7	(0.7)
Unknown	7.8	(0.7)	18.0	(1.6)	10.5	(1.0)	14.8	(1.1)	20.4	(1.3)	13.5	(1.7)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

For dairy operations, digestive problems accounted for a higher percentage of calf losses in the North Central region (40.7 percent) than in the South Central and Southwest regions (27.2 and 26.8 percent, respectively).

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

				ļ	Percer	nt Nonp	oredato	or Loss	;			
	Region											
		orth htral	Norti	heast	North	nwest		uth ntral	Sout	heast	Sout	hwest
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	40.7	(2.7)	39.0	(1.4)	31.9	(2.4)	27.2	(2.9)	37.1	(8.2)	26.8	(2.1)
Respiratory problems (pneumonia, shipping fever, etc.)	30.0	(2.1)	32.9	(1.3)	32.3	(2.0)	41.4	(4.3)	25.4	(4.1)	36.5	(1.9)
Metabolic problems (milk fever, grass tetany, etc.)	1.0	(0.5)	0.6	(0.2)	0.9	(0.3)	6.2	(4.7)	1.0	(0.2)	3.6	(1.5)
Weather-related causes (chilling, drowning, lightning, etc.)	3.5	(0.8)	1.4	(0.2)	0.7	(0.2)	1.7	(0.6)	4.5	(1.6)	3.8	(0.9)
Theft (stolen)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	0.6	(0.3)	0.0	(0.0)	0.2	(0.1)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0	(0.0)	0.7	(0.4)	0.1	(0.1)	0.3	(0.2)	0.1	(0.1)	0.0	(0.0)
Calving problems	16.9	(1.9)	8.9	(0.9)	9.9	(1.4)	13.7	(2.2)	9.5	(1.7)	8.5	(1.3)
Lameness/injury	1.0	(0.3)	1.8	(0.3)	1.1	(0.2)	0.8	(0.4)	1.5	(0.4)	1.4	(0.4)
Other diseases	1.8	(0.7)	4.9	(1.0)	3.5	(0.7)	2.7	(0.8)	11.3	(7.3)	3.8	(0.7)
Other	1.3	(0.4)	1.8	(1.0)	0.5	(0.1)	3.1	(1.9)	0.6	(0.4)	4.1	(2.7)
Unknown	3.8	(0.9)	8.0	(0.8)	19.1	(3.5)	2.3	(0.6)	9.0	(1.9)	11.3	(1.6)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

The percentage of losses due to calving problems ranged from 7.5 percent in the Northeast region to 18.5 percent in the Southwest region. The Southwest region had a disproportionately high percentage of weather-related losses.

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

	Percent Nonpredator Loss											
	Region											
	North Central Northeast		neast	Norti	nwest	South Central		Southeast		Southwest		
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, entero- toxemia, acidosis, etc.)	31.6	(6.2)	37.8	(8.9)	27.7	(4.5)	33.1	(6.7)	22.3	(3.6)	7.2	(4.6)
Respiratory problems (pneumonia, shipping fever, etc.)	43.9	(6.0)	23.2	(4.6)	37.9	(4.1)		(5.8)	33.1	(4.9)	13.0	(8.0)
Metabolic problems (milk fever, grass tetany, etc.)	0.0	(0.0)	0.6	(0.3)	2.4	(1.2)	5.0	(4.1)	0.4	(0.3)	0.0	(0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	1.0	(0.5)	1.0	(0.4)	2.2	(1.0)	3.5	(2.3)	7.3	(4.0)	32.5	(12.9)
Theft (stolen)	0.0	(0.0)	0.1	(0.1)	0.0	(0.0)	0.0	(0.0)	0.1	(0.0)	0.6	(0.6)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.1	(0.1)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)
Calving problems	13.4	(4.0)	7.5	(2.5)	16.7	(4.1)	8.0	(2.6)	15.1	(3.5)	18.5	(4.1)
Lameness/injury	0.5	(0.3)	1.7	(0.7)	0.0	(0.0)	1.7	(1.4)	0.0	(0.0)	13.1	(5.1)
Other diseases	2.5	(1.6)	6.9	(3.1)	1.0	(0.4)	0.6	(0.3)	2.4	(0.9)	1.2	(1.0)
Other	3.1	(2.5)	1.0	(0.6)	2.5	(1.1)	4.4	(2.8)	0.0	(0.0)	2.5	(2.7)
Unknown	3.9	(1.5)	20.2	(8.5)	9.6	(4.0)	5.4	(1.9)	19.3	(4.5)	11.4	(9.5)
Total	100.0		100.0		100.0		100.0		100.0		100.0	

On "other" operations in all regions, digestive and respiratory problems combined accounted for at least 60 percent of calf losses.

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

Percent Nonpredator Loss

						Reg	jion					
	Noi Cen		North	neast	Northwest		South Central		Southeast		Southwest	
Nonpredator Cause	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error	Pct.	Std. Error
Digestive problems (bloat, scours, parasites, entero- tovomia, asidesia, etc.)	22.0	(0, 0)	25.0	(4.0)	47 6	(0,0)	15.0	(5,6)	10.0	(4.6)	42.0	(10.5)
toxemia, acidosis, etc.) Respiratory problems (pneumonia, shipping fever, etc.)		(8.2)		(4.8)		(9.9)		(5.6)		(4.6)		(10.5)
Metabolic problems (milk fever, grass tetany, etc.)		(0.0)		(1.6)		(0.0)		(0.8)		(0.0)		(0.0)
Weather-related causes (chilling, drowning, lightning, etc.)	16.0	(7.4)	3.7	(1.8)	6.1	(2.9)	1.9	(1.0)	9.9	(5.1)	2.3	(1.7)
Theft (stolen)	1.1	(1.0)	0.0	(0.0)	0.6	(0.5)	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)
Poisoning (nitrate poisoning, noxious feeds, noxious weeds, etc.)	0.0	(0.0)	2.7	(1.5)	0.0	(0.0)	0.8	(0.7)	0.0	(0.0)	0.0	(0.0)
Calving problems	3.4	(1.3)	0.9	(0.4)	0.5	(0.3)	4.6	(1.7)	8.1	(3.1)	0.2	(0.2)
Lameness/injury	1.0	(0.4)	4.3	(2.1)	1.1	(0.6)	0.1	(0.1)	1.4	(0.8)	5.4	(3.6)
Other diseases	2.3	(1.4)	2.5	(0.7)	2.7	(1.0)	1.4	(0.7)	4.8	(2.9)	2.3	(1.7)
Other	2.8	(2.3)	0.6	(0.3)	2.9	(2.4)	1.8	(1.2)	2.0	(2.0)	0.1	(0.1)
Unknown	3.2	(1.3)	7.3	(2.6)	5.9	(2.0)	7.5	(3.1)	10.2	(3.2)	3.7	(2.4)
Total	100.0		100.0		100.0		100.0		100.0	)	100.0	)

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# 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, and 50,000 in 2006. Regardless of when producers responded, they were asked to report death losses for cattle and calves for the 1991, 1995, 2000, and 2005 calendar years and the January 1, 1992, 1996, 2001, and 2006 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, and May 2006. 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 1992, February 1996, January 2001, and January 2006 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 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 on p. 2 of this report (Terms Used in This Report).

#### 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, and 2005 Meat Animal Production, Disposition, and Income reports, released in April 1992, 1996, 2001, and 2006. Breakdowns by cause of loss and value of loss were published in the NASS Cattle and Calves Death Loss reports issued in May 1992, 1996, and 2006. 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\*

	StateIowaMinnesotaNebraskaNorth DakotaSouth DakotaTotalConnecticutDelaware	(1,000 head) 3,800 2,350 6,500 1,720 3,750 18,120 52	Number Operations   31,000   26,000   24,000   11,700   17,000
North Central	Minnesota Nebraska North Dakota South Dakota Total Connecticut	2,350 6,500 1,720 3,750 18,120	26,000 24,000 11,700
Northeast	Nebraska North Dakota South Dakota Total Connecticut	6,500 1,720 3,750 18,120	24,000 11,700
Northeast	North Dakota South Dakota Total Connecticut	1,720 3,750 18,120	11,700
Northeast	South Dakota Total Connecticut	3,750 18,120	
Northeast	Total Connecticut	18,120	17 000
Northeast	Connecticut	· · · · · ·	17,000
Northeast		50	109,700
	Delaware	-	1,100
		23	420
	Illinois	1,330	19,800
	Indiana	900	19,000
	Kentucky	2,380	45,000
	Maine	92	1,700
	Maryland	230	4,000
	Massachusetts	47	1,100
	Michigan	1,030	14,400
	New Hampshire	39	850
	New Jersey	42	1,500
	New York	1,400	14,700
	Ohio	1,280	27,000
	Pennsylvania	1,590	28,000
	Rhode Island	5	220
	Vermont	275	2,500
	Virginia	1,660	25,000
	West Virginia	410	12,500
	Wisconsin	3,400	36,000
	Total	16,185	254,790
Northwest	Idaho	2,110	10,400
NorthWebt	Montana	2,400	12,600
	Oregon	1,420	15,300
	Washington	1,100	13,000
	Wyoming	1,430	5,800
	Total	8,460	57,100
South Central	Arkansas	1,710	30,000
ooutin oontrai	Kansas	6,650	32,000
	Missouri	4,500	64,000
	Oklahoma	4,300 5,450	56,000
	Texas	14,100	150,000
	Total	32,410	332,000
Southeast	Alabama	1,280	25,000
Southeast	Florida	1,680	18,800
		-	21,000
	Georgia Louisiana	1,180 820	14,500
	Mississippi	990	21,000
	North Carolina	990 860	21,000
	South Carolina	410	10,000
	Tennessee	2,240	48,000
	Total	2,240 9,460	179,300
Southwest	Arizona	9,460 940	2,600
Southwest	California		17,000
		5,450	
	Colorado	2,650	12,900
	Hawaii	161	800
	Nevada New Mexico	500	1,600
	New Mexico	1,550	7,600
	Utah	800	7,000
T-1-1	Total	12,1051	49,500
Total (49 States)		96,686	982,390
Total U.S. (50 States)		96,701.5	982,510

### Number of Cattle and Calves on January 1, 2006, and Number of Operations in 2005

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