

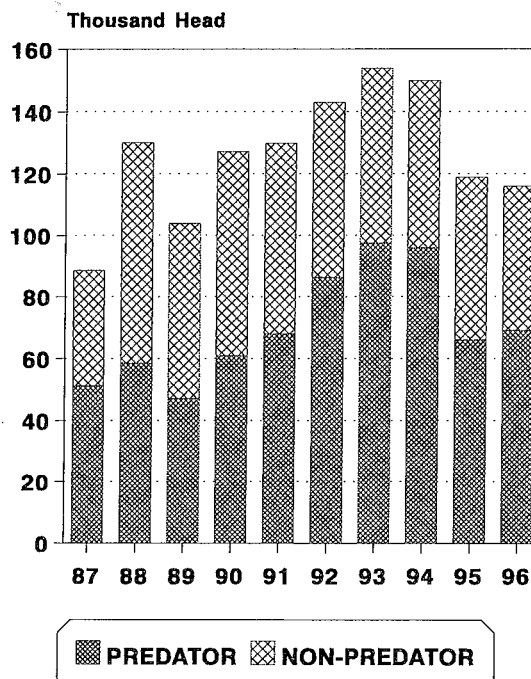
SHEEP LOSSES TO ALL CAUSES - 1996

This annual report is funded by the Wyoming Department of Agriculture. A survey of producers is conducted in early January and is used to estimate total sheep and lamb inventory on hand January 1 and to estimate sheep and lamb losses to all causes during the previous year.

Our thanks go to all the Wyoming ranchers and farmers whose voluntary cooperation made this report possible.

This year's report indicates a small increase in sheep and lambs lost to predators but slightly smaller total losses to all causes. When measured as a percentage of supply, lamb predator losses also increased.

ALL SHEEP & LAMB LOSSES
Predator, Non-Predator, and All Causes



HIGHLIGHTS

PREDATOR LOSSES UP: Wyoming sheep producers lost 69,000 sheep and lambs to predators in 1996, up 5 percent from 1995 but down 28 percent from 1994. Coyotes were the main predator taking 71 percent of the total predator losses and 42 percent of all losses. Eagles were the second most common predator taking 8,500 head.

ALL LAMB LOSSES DOWN 2 PERCENT: Sheep producers lost 92,000 lambs before or after docking in 1996, 2 percent less than in 1995. Losses to predators accounted for 65 percent of the total. Predator losses were up 7 percent from last year and took 12 percent of all lambs born. Fewer losses to weather related causes were reported due to the mild winter weather, resulting in a 16 percent drop in non-predator related deaths.

FEWER SHEEP LOSSES: Sheep losses in Wyoming during 1996 totaled 24,000 head, down 4 percent from 1995. Predator losses decreased 1,000 head to 9,000 head which was 38 percent of the total. Non-predator losses were unchanged from last year at 15,000 head. Coyotes killed 7,000 adult sheep which was down from 8,000 in 1995. Old age was the leading non-predator cause of death followed by weather and lambing complications.

VALUE OF LOSSES UP 11 PERCENT: Sheep producers in Wyoming lost \$7.19 million from sheep and lamb deaths in 1996, up 11 percent from the previous year. Predation accounted for \$4.07 million which was up from \$3.48 million in 1995. Higher prices offset fewer total losses in calculating the total value.

LOSSES OF SHEEP AND LAMBS BY CAUSE: WYOMING 1991-96 1/

Cause of Loss	1991	1992	1993	1994	1995	1996
Number of Head						
Coyotes	51,300	67,300	72,000	69,000	48,000	49,000
Bobcats	200	300	700	600	300	400
Dogs	1,600	1,000	900	800	1,100	1,200
Bears	1,100	800	1,100	2,600	1,500	900
Eagles	4,300	5,400	9,500	11,100	7,800	8,500
Fox	7,000	9,200	11,400	9,000	5,600	6,800
Mountain Lions	2,200	2,000	1,800	2,000	1,100	1,800
Other Predators	200	300	100	900	600	400
Total Predators	67,900	86,300	97,500	96,000	66,000	69,000
Weather	17,200	11,600	17,800	11,900	23,700	17,100
Disease	10,600	12,600	9,800	16,100	8,200	9,000
Lambing	12,300	13,200	9,800	9,400	6,900	8,500
Poison	6,500	6,400	7,500	5,200	3,500	3,100
Old Age	5,600	4,400	3,800	4,200	3,700	3,400
On Back	2,000	1,800	1,900	1,200	1,200	1,000
Theft	4,700	2,600	2,700	3,000	1,400	1,400
Other Known Causes	3,200	4,100	3,200	3,000	4,400	3,500
Total Loss From All Causes	130,000	143,000	154,000	150,000	119,000	116,000
Percent of Total by Cause						
Coyotes	39.5	47.1	46.7	46.0	40.3	42.2
Bobcats	0.2	0.2	0.4	0.4	0.3	0.3
Dogs	1.2	0.7	0.6	0.5	0.9	1.0
Bears	0.8	0.6	0.7	1.7	1.3	0.8
Eagles	3.3	3.8	6.2	7.4	6.6	7.3
Fox	5.4	6.4	7.4	6.0	4.7	5.9
Mountain Lions	1.7	1.4	1.2	1.3	0.9	1.6
Other Predators	0.2	0.2	0.1	0.6	0.5	0.3
Total Predators	52.2	60.3	63.3	64.0	55.5	59.5
Weather	13.2	8.1	11.5	7.9	19.9	14.7
Disease	8.2	8.8	6.4	10.7	6.9	7.8
Lambing	9.5	9.2	6.4	6.3	5.8	7.3
Poison	5.0	4.5	4.9	3.5	2.9	2.7
Old Age	4.3	3.1	2.5	2.8	3.1	2.9
On Back	1.5	1.3	1.2	0.8	1.0	0.9
Theft	3.6	1.8	1.7	2.0	1.2	1.2
Other Known Causes	2.5	2.9	2.1	2.0	3.7	3.0
Total Loss From All Causes	100.0	100.0	100.0	100.0	100.0	100.0
Dollar Value of Losses by Cause						
Coyotes	1,720,700	2,597,500	3,128,500	3,087,800	2,556,000	2,916,200
Bobcats	5,900	13,300	28,200	29,700	17,520	25,430
Dogs	57,200	40,500	44,300	43,400	68,360	83,870
Bears	52,100	36,200	60,300	132,500	90,690	60,060
Eagles	130,900	194,500	388,200	472,500	387,540	478,800
Fox	211,100	324,800	464,800	362,800	272,450	371,670
Mountain Lions	88,000	83,700	91,200	94,200	62,180	116,330
Other Predators	5,900	13,300	4,000	44,600	28,860	21,640
Total Predators	2,271,800	3,303,800	4,209,500	4,267,500	3,483,600	4,074,000
Weather	575,400	444,500	808,100	570,100	1,195,590	1,038,810
Disease	431,100	542,700	461,700	732,400	437,680	566,490
Lambing	455,800	552,700	475,000	438,700	396,780	543,230
Poison	328,700	309,300	414,400	276,400	245,600	232,140
Old Age	347,200	275,000	254,600	287,700	292,300	312,800
On Back	117,500	107,000	119,300	76,500	91,710	88,210
Theft	194,500	135,000	164,900	191,300	98,240	106,060
Other Known Causes	108,000	187,500	153,000	157,100	254,900	223,460
Total Loss From All Causes	4,830,000	5,857,500	7,060,600	6,997,500	6,496,400	7,185,200

1/Includes all lamb losses from birth both before and after docking.

LOSSES OF SHEEP BY CAUSE: WYOMING 1991-96 1/

Cause of Loss	1991	1992	1993	1994	1995	1996
Number of Head						
Coyotes	6,100	8,800	8,500	11,500	8,000	7,000
Bobcats	100	—	—	200	100	100
Dogs	300	200	300	400	500	500
Bears	600	300	600	1,000	600	300
Eagles	100	200	200	1,000	400	500
Fox	100	100	200	100	100	100
Mountain Lions	700	500	700	500	300	500
Other Predators	—	100	—	300	—	—
Total Predators	7,900	10,300	10,500	15,000	10,000	9,000
Weather	2,000	1,400	3,400	3,300	1,800	3,000
Disease	3,600	3,700	2,500	3,100	1,400	2,100
Lambing	2,800	3,300	3,000	2,200	2,100	2,200
Poison	4,200	3,100	4,200	2,400	2,500	1,700
Old Age	5,600	4,400	3,800	4,200	3,700	3,400
On Back	1,800	1,600	1,600	1,000	1,100	900
Theft	1,700	1,600	2,100	2,500	1,000	800
Other Known Causes	400	1,600	900	1,300	1,400	900
Total Loss From All Causes	30,000	31,000	32,000	35,000	25,000	24,000
Percent of Total by Cause						
Coyotes	20.3	28.4	26.6	32.9	32.0	29.2
Bobcats	—	0.3	—	0.6	0.4	0.4
Dogs	1.0	0.6	0.9	1.1	2.0	2.1
Bears	2.0	1.0	1.9	2.9	2.4	1.3
Eagles	0.3	0.6	0.6	2.9	1.6	2.1
Fox	0.3	0.3	0.6	0.3	0.4	0.4
Mountain Lions	2.3	1.6	2.2	1.4	1.2	2.1
Other Predators	—	0.3	—	0.9	—	—
Total Predators	26.3	33.2	32.8	42.9	40.0	37.5
Weather	6.7	4.5	10.6	9.4	7.2	12.5
Disease	12.0	11.9	7.8	8.9	5.6	8.8
Lambing	9.3	10.6	9.4	6.3	8.4	9.2
Poison	14.0	10.0	13.1	6.9	10.0	7.1
Old Age	18.7	14.2	11.9	12.0	14.8	14.2
On Back	6.0	5.2	5.0	2.9	4.4	3.8
Theft	5.7	5.2	6.6	7.1	4.0	3.3
Other Known Causes	1.3	5.2	2.8	3.7	5.6	3.8
Total Loss From All Causes	100.0	100.0	100.0	100.0	100.0	100.0
Dollar Value of Losses by Cause 1/						
Coyotes	378,200	550,000	569,500	787,800	632,000	644,000
Bobcats	—	6,300	—	13,700	7,900	9,200
Dogs	18,600	12,500	20,100	27,400	39,500	46,000
Bears	37,200	18,700	40,200	68,500	47,400	27,600
Eagles	6,200	12,500	13,400	68,500	31,600	46,000
Fox	6,200	6,300	13,400	6,800	7,900	9,200
Mountain Lions	43,400	31,200	46,900	34,200	23,700	46,000
Other Predators	—	6,300	—	20,600	—	—
Total Predators	489,800	643,800	703,500	1,027,500	790,000	828,000
Weather	124,000	87,500	227,800	226,100	142,200	276,000
Disease	223,200	231,200	167,500	212,400	110,600	193,200
Lambing	173,600	206,200	201,000	150,700	165,900	202,400
Poison	260,400	193,800	281,400	164,400	197,500	156,400
Old Age	347,200	275,000	254,600	287,700	292,300	312,800
On Back	111,600	100,000	107,200	68,500	86,900	82,800
Theft	105,400	100,000	140,700	171,300	79,000	73,600
Other Known Causes	24,800	100,000	60,300	89,100	110,600	82,800
Total Loss From All Causes	1,860,000	1,937,500	2,144,000	2,397,500	1,975,000	2,208,000

1/Sheep value per head based on a two-year average value per head of ewes 1+ years.
 Sheep value: 1991-\$62.00; 1992-\$62.50; 1993-\$67.00; 1994-\$68.50; 1995-\$79.00; 1996-\$92.00.

LOSSES OF LAMBS BY CAUSE: WYOMING 1991-96 1/

Cause of Loss	1991	1992	1993	1994	1995	1996
Number of Head						
Coyotes	45,200	58,500	63,500	57,500	40,000	42,000
Bobcats	200	200	700	400	200	300
Dogs	1,300	800	600	400	600	700
Bears	500	500	500	1,600	900	600
Eagles	4,200	5,200	9,300	10,100	7,400	8,000
Fox	6,900	9,100	11,200	8,900	5,500	6,700
Mountain Lions	1,500	1,500	1,100	1,500	800	1,300
Other Predators	200	200	100	600	600	400
Total Predators	60,000	76,000	87,000	81,000	56,000	60,000
Weather	15,200	10,200	14,400	8,600	21,900	14,100
Disease	7,000	8,900	7,300	13,000	6,800	6,900
Lambing	9,500	9,900	6,800	7,200	4,800	6,300
Poison	2,300	3,300	3,300	2,800	1,000	1,400
On Back	200	200	300	200	100	100
Theft	3,000	1,000	600	500	400	600
Other Known Causes	2,800	2,500	2,300	1,700	3,000	2,600
Total Loss From All Causes	100,000	112,000	122,000	115,000	94,000	92,000
Percent of Total by Cause						
Coyotes	45.2	52.2	52.0	50.0	42.6	45.7
Bobcats	0.2	0.2	0.6	0.3	0.2	0.3
Dogs	1.3	0.7	0.5	0.3	0.6	0.8
Bears	0.5	0.4	0.4	1.4	1.0	0.7
Eagles	4.2	4.6	7.6	8.8	7.9	8.7
Fox	6.9	8.1	9.2	7.7	5.9	7.3
Mountain Lions	1.5	1.3	0.9	1.3	0.9	1.4
Other Predators	0.2	0.2	0.1	0.5	0.6	0.4
Total Predators	60.0	67.9	71.3	70.4	59.6	65.2
Weather	15.2	9.1	11.8	7.5	23.3	15.3
Disease	7.0	7.9	6.0	11.3	7.2	7.5
Lambing	9.5	8.8	5.6	6.3	5.1	6.8
Poison	2.3	2.9	2.7	2.4	1.1	1.5
On Back	0.2	0.2	0.2	0.2	0.1	0.1
Theft	3.0	0.9	0.5	0.4	0.4	0.7
Other Known Causes	2.8	2.2	1.9	1.5	3.2	2.8
Total Loss From All Causes	100.0	100.0	100.0	100.0	100.0	100.0
Dollar Value of Losses by Cause 2/						
Coyotes	1,342,500	2,047,500	2,559,000	2,300,000	1,924,000	2,272,200
Bobcats	5,900	7,000	28,200	16,000	9,620	16,230
Dogs	38,600	28,000	24,200	16,000	28,860	37,870
Bears	14,900	17,500	20,100	64,000	43,290	32,460
Eagles	124,700	182,000	374,800	404,000	355,940	432,800
Fox	204,900	318,500	451,400	356,000	264,550	362,470
Mountain Lions	44,600	52,500	44,300	60,000	38,480	70,330
Other Predators	5,900	7,000	4,000	24,000	28,860	21,640
Total Predators	1,782,000	2,660,000	3,506,000	3,240,000	2,693,600	3,246,000
Weather	451,400	357,000	580,300	344,000	1,053,390	762,810
Disease	207,900	311,500	294,200	520,000	327,080	373,290
Lambing	282,200	346,500	274,000	288,000	230,880	340,830
Poison	68,300	115,500	133,000	112,000	48,100	75,740
On Back	5,900	7,000	12,100	8,000	4,810	5,410
Theft	89,100	35,000	24,200	20,000	19,240	32,460
Other Known Causes	83,200	87,500	92,700	68,000	144,300	140,660
Total Loss From All Causes	2,970,000	3,920,000	4,916,600	4,600,000	4,521,400	4,977,200

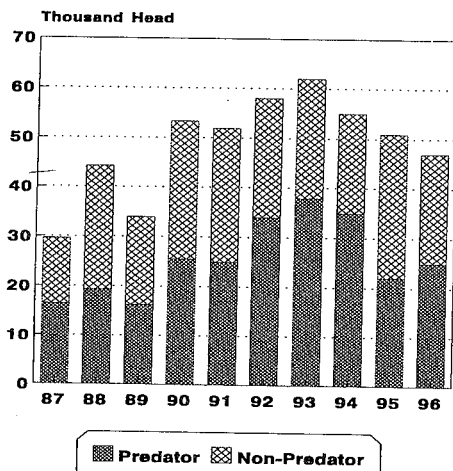
1/Includes all lamb losses both before and after docking.

2/Lamb value per head based on the annual hundredweight prices received by farmers and ranchers for a 60 pound lamb.
Lamb value: 1991-\$29.70; 1992-\$35.00; 1993-\$40.30; 1994-\$40.00; 1995-\$48.10; 1996-\$54.10.

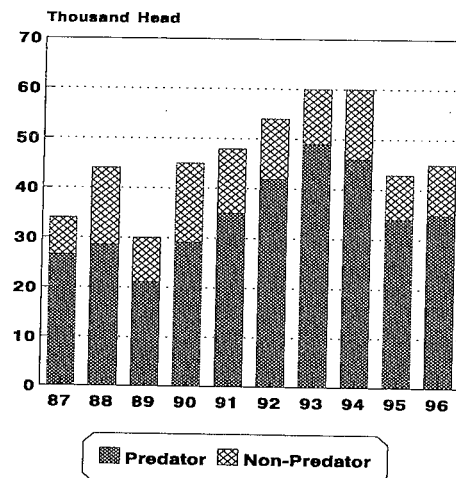
LOSSES OF LAMBS BEFORE DOCKING: WYOMING 1991-96

Cause of Loss	1991	1992	1993	1994	1995	1996
Number of Head						
Coyotes	16,400	23,500	22,500	20,000	13,000	14,000
Bobcats	100	100	300	200	100	100
Dogs	200	300	200	200	200	300
Bears	200	100	—	200	100	—
Eagles	2,500	3,300	6,200	7,200	4,400	5,400
Fox	4,600	5,900	8,600	6,500	3,600	4,700
Mountain Lions	700	—	200	400	100	200
Other Predators	100	100	—	300	500	300
Total Predators	24,900	34,000	38,000	35,000	22,000	25,000
Weather	12,700	8,900	13,000	7,100	21,000	12,000
Disease	2,900	3,600	3,000	5,000	1,800	2,800
Lambing	9,500	9,900	6,800	7,200	4,800	6,300
Poison	300	700	400	200	400	100
On Back	100	100	200	—	—	—
Theft	300	200	100	—	—	300
Other Known Causes	1,300	600	500	500	1,000	500
Total Loss From All	52,000	58,000	62,000	55,000	51,000	47,000

LAMB LOSSES BEFORE DOCKING
Predator, Non-Predator, and All Causes



LAMB LOSSES AFTER DOCKING
Predator, Non-Predator, and All Causes



LOSSES OF LAMBS AFTER DOCKING: WYOMING 1991-96

Cause of Loss	1991	1992	1993	1994	1995	1996
Number of Head						
Coyotes	28,800	35,000	41,000	37,500	27,000	28,000
Bobcats	100	100	400	200	100	200
Dogs	1,100	500	400	200	400	400
Bears	300	400	500	1,400	800	600
Eagles	1,700	1,900	3,100	2,900	3,000	2,600
Fox	2,300	3,200	2,600	2,400	1,900	2,000
Mountain Lions	700	800	900	1,100	700	1,100
Other Predators	100	100	100	300	100	100
Total Predators	35,100	42,000	49,000	46,000	34,000	35,000
Weather	2,500	1,300	1,400	1,500	900	2,100
Disease	4,100	5,300	4,300	8,000	5,000	4,100
Poison	2,000	2,600	2,900	2,600	600	1,300
On Back	100	100	100	200	100	100
Theft	2,700	800	500	500	400	300
Other Known Causes	1,500	1,900	1,800	1,200	2,000	2,100
Total Loss From All	48,000	54,000	60,000	60,000	43,000	45,000

Wyoming 1996