



MONTANA
AGRICULTURAL
STATISTICS SERVICE

301 South Park, Drawer 10033
Helena, MT 59626-0033
Phone: (406) 441-1240
(800) 835-2612
e-mail: nass-mt@nass.usda.gov

MONTANA SHEEP & LAMB LOSSES--1997



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Montana sheep and lamb producers lost 85,000 animals to weather, predators, disease and other causes during 1997, representing a total value of \$6.0 million, according to a survey conducted by the Montana Agricultural Statistics Service. The total number of sheep and lambs lost increased 2 percent from 1996 and the total value of inventory lost in 1997 rose 12 percent. High market prices in 1997 increased the value of sheep and lambs. The increase in sheep and lamb losses is partly due to severe spring snow storms that hit the eastern part of the state. Total inventory is 7 percent lower than the previous year. Sheep and lamb deaths amounted to 10.1 percent of the January 1 inventory and lambs born -- slightly higher than the previous year.

Predators caused an estimated \$1.8 million in losses in 1997 down from \$1.9 million the previous year. Losses due to predators amounted to 3.2 percent of the January 1 inventory and lambs born and 32 percent of all sheep and lamb deaths. Coyotes remained the largest predator for both sheep and lambs. Coyotes accounted for 74 percent of the predator caused losses and 23 percent of all death losses in the state. The value of losses attributed to coyotes was \$1.3 million. The number of sheep and lambs lost to all predators totaled 27,000 head, down 4,200 head from last year. Lamb losses by all predators amounted to 22,400 head, down 15 percent from last

year. The number of sheep lost to all predators totaled 4,600, down 400 head from a year ago.

The total value of non-predatory losses was \$3.6 million in 1997 higher than the \$2.6 million the previous year. Non-predatory losses accounted for 58 percent of all losses, compared with 47 percent in 1996. The largest non-predatory cause of losses were weather conditions at 26,200 head.

There were comments by producers saying many had lost a large majority of their flocks in the April storms. Sheep losses to non-predatory factors totaled 17,800, 51 percent higher than 1996. Non-predatory lamb losses came in at 31,300 head, 14 percent higher than a year ago.

Fewer producers reported sheep and lambs lost to unknown causes

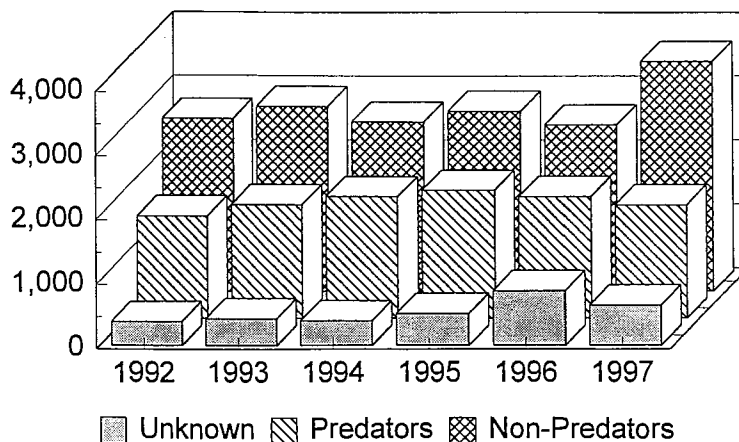
this past year. This resulted in the number of sheep and lambs lost to unknown causes to decrease 29 percent from last year. Lambs lost to unknown causes totaled 6,300 head, 2,100 head lower than 1996. Unknown causes claimed 2,600 sheep, 1,600 less head than last year. The value of sheep and lambs lost to unknown causes decreased \$.3 million to \$.6 million.

Of the livestock producers surveyed, 26 percent reported receiving assistance from a government trapper during 1997. 61.9 percent of the producers surveyed used one or more forms of non-lethal predator control practices. Guard animals were the most popular practice reported. 70.8 percent of these producers used guard animals and 82.6 of them reported the guard animals as being very effective.

Sheep & Lamb Losses - 1997

Causes of Death

(000) Dollars



METHODOLOGY and DEFINITIONS

The sheep and lamb survey utilized multi-frame sampling procedures. The survey involved drawing a random sample from a list of livestock producers maintained by the Montana Agricultural Statistics Service. In addition, sheep producers living in a selected sample of area segments were interviewed. This procedure assures complete coverage of

sheep producers by accounting for ranchers/farmers who may not be on the list.

Sheep and lamb loss estimates published by the USDA include sheep losses for the entire year, but include only those lamb losses that occur after docking. This special report also includes an estimate of lambs lost before docking.

COOPERATION

This study was undertaken at the request of the Montana Wool Growers Association who also provided funding. Predator control questions were added to the survey at the request of Animal Damage Control (ADC). The Montana Agricultural Statistics Service conducted the survey and expresses appreciation to all cooperating sheep producers.

SHEEP & LAMBS: Inventory, Death Losses, and Value of Losses, Montana, 1988-1997

Year	Jan. 1 Sheep & Lamb Inventory (000 head)	Lamb Crop (000 head)	DEATH LOSSES					
			All Sheep Losses (000 head)	LAMBS (000 head)			All Sheep & Lamb Losses (000 hd.)	
				Before Docking	After Docking	All Lambs	Total Loss	% Jan. 1 Inventory & Lambs Born 1/
1988	597	460	50	53	47	100	150.0	13.5
1989	600	500	43	55	43	98	141.0	12.2
1990	663	535	40	53	40	93	133.0	10.6
1991	683	585	42	54	46	100	142.0	10.7
1992	678	510	35	39	38	77	112.0	9.1
1993	564	480	35	36	37	73	108.0	10.0
1994	534	465	29	35	40	75	104.0	10:1
1995	490	410	25	34	33	67	92.0	9.9
1996	465	390	21	30	32	62	83.0	9.4
1997	432	380	25	32	28	60	85.0	10.1

Year	Predator Losses (000) Head		Non- Predator Loss (000 hd.)	Unknown Causes (000 head)	VALUE OF LOSSES (000 dollars)			
	Total Loss	% Jan. 1 Inventory & Lambs Born 1/			Predator	Non- Predator	Unknown	Total 2/
1988	43.1	3.9	84.7	22.2	2,519.7	5,115.3	1,386.6	9,021.6
1989	35.9	3.1	80.8	24.3	1,956.4	4,264.8	1,405.0	7,626.2
1990	39.1	3.1	79.9	14.0	1,491.1	3,586.1	659.8	5,737.0
1991	44.9	3.4	83.5	13.6	1,590.0	3,179.6	550.4	5,320.0
1992	41.2	3.4	63.0	7.8	1,593.6	2,696.0	374.6	4,664.1
1993	40.2	3.7	59.4	8.4	1,767.7	2,891.8	418.8	5,078.2
1994	42.9	4.1	53.8	7.3	1,897.0	2,649.9	386.6	4,933.5
1995	37.1	4.0	46.9	8.0	2,001.0	2,821.2	500.1	5,322.3
1996	31.2	3.5	39.2	12.6	1,902.1	2,606.9	853.9	5,362.9
1997	27.0	3.2	49.1	8.9	1,769.8	3,598.9	627.1	5,995.8

1/ Lambs born equals lamb crop plus lambs lost before docking.

2/ Totals may not add because of rounding.

SHEEP & LAMBS: Losses by Cause, Montana, 1996-1997

Cause of Loss	SHEEP LOSS				LAMB LOSS				TOTAL LOSS			
	Number of Head		Value in Dollars (000) 1/, 3/		Number of Head		Value in Dollars (000) 2/, 3/		Number of Head		Value in Dollars (000) 3/	
	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997	1996	1997
Predators												
Fox	100	--	9.4	--	2,600	2,200	142.1	129.1	2,700	2,200	151.5	129.1
Dog	400	400	37.6	39.6	1,000	600	54.7	35.2	1,400	1,000	92.3	74.8
Coyote	3,500	3,500	329.0	346.5	19,100	16,400	1,044.0	962.4	22,600	19,900	1,373.0	1,308.9
Eagle	200	100	18.8	9.9	2,000	2,300	109.3	135.0	2,200	2,400	128.1	144.9
Bobcat	100	--	9.4	--	100	100	5.5	5.9	200	100	14.9	5.9
Bear	300	200	28.2	19.8	500	200	27.3	11.7	800	400	55.5	31.5
Mountain Lion	200	300	18.8	29.7	300	200	16.4	11.7	500	500	35.2	41.4
Other Animals	--	--	--	--	--	--	--	--	--	--	--	--
Unknown Predators	200	100	18.8	9.9	600	400	32.8	23.5	800	500	51.6	33.4
Total Predators	5,000	4,600	470.0	455.4	26,200	22,400	1,432.1	1,314.4	31,200	27,000	1,902.1	1,769.8
Non-Predators												
All Diseases	1,800	3,000	169.2	297.0	4,900	4,800	267.8	281.7	6,700	7,800	437.0	578.7
Weather Conditions	1,600	7,100	150.4	702.9	12,900	19,100	705.1	1,120.8	14,500	26,200	855.5	1,823.7
Poison	600	900	56.4	89.1	700	600	38.3	35.2	1,300	1,500	94.7	124.3
Lambing Complications	1,100	900	103.4	89.1	5,500	5,600	300.6	328.6	6,600	6,500	404.0	417.7
On Back	1,200	800	112.8	79.2	--	--	--	--	1,200	800	112.8	79.2
Old Age	4,500	4,100	423.0	405.9					4,500	4,100	423.0	405.9
Theft	600	800	56.4	79.2	1,800	500	98.4	29.3	2,400	1,300	154.8	108.5
Other	400	200	37.6	19.8	1,600	700	87.5	41.1	2,000	900	125.1	60.9
Total Non-Predators	11,800	17,800	1,109.2	1,762.2	27,400	31,300	1,497.7	1,836.7	39,200	49,100	2,606.9	3,598.9
Unknown Causes	4,200	2,600	394.8	257.4	8,400	6,300	459.1	369.7	12,600	8,900	853.9	627.1
Total Loss	21,000	25,000	1,974.0	2,475.0	62,000	60,000	3,388.9	3,520.8	83,000	85,000	5,362.9	5,995.8

1/ Average reported value for Ewes 1+. 2/ Lamb values equal to market year average price received for lambs multiplied by an average weight of 60 pounds per lamb. 3/ Totals may not add due to rounding. -- Denotes less than 100 head.

Use and Effectiveness of Non-Lethal Predator Control Measures, Montana, 1997

Non-Lethal Predator Control Measures	Percent of Responses Using and Not Using Practice		Effectiveness Rating of those Reporting Use of Each Practice		
	Practice Used	Practice Not Used	Very Effective	Somewhat Effective	Not Effective
	Percent		Percent		
One or More Practices Used	61.9	38.1			
Fencing	32.2	67.8	54.2	34.6	11.2
Scaring Devices (fright tactics)	3.6	96.4	35.3	49.8	14.9
Guard Animals	70.8	29.2	82.6	14.9	2.5
Husbandry Practices:					
Herding, Gathering	27.0	73.0	88.5	11.2	.3
Night Penning	47.4	52.6	89.0	9.9	1.1
Shed Lambing	50.3	49.7	83.8	15.0	1.2
Move Livestock	11.6	88.4	34.8	56.5	8.7

SHEEP & LAMBS: Percent of Losses By Cause and Size of Flock, Montana, 1996-1997

CAUSE OF LOSS	SIZE OF FLOCK											
	1-99		100-999		1000+		All Sizes					
	1996	1997	1996	1997	1996	1997	1993	1994	1995	1996	1997	
Predators												
Fox	--	--	3	2	4	4	3	6	4	3	3	
Dog	4	1	2	2	1	--	2	1	2	2	1	
Coyote	16	33	32	21	27	26	28	27	30	27	23	
Eagle	--	--	4	2	3	5	2	5	3	3	3	
Bobcat	--	--	--	--	--	--	--	--	--	--	--	
Bear	--	--	--	--	2	1	1	1	--	1	--	
Mountain Lion	3	--	1	--	--	1	1	1	1	1	1	
Other Animals	--	--	--	--	--	--	--	--	--	--	--	
Unknown Predators	6	--	--	1	1	1	2/	2/	1	1	1	
Total Predators 1/	30	35	42	29	39	38	37	41	40	38	32	
Non-Predators												
All Diseases	15	7	9	12	6	8	11	15	10	8	9	
Weather Conditions	18	39	19	35	18	27	11	11	16	17	31	
Poison	--	3	1	1	2	2	2	2	2	2	2	
Lambing Complications	20	5	10	9	4	5	15	10	9	8	8	
On Back	--	--	1	1	1	1	3	2	1	1	1	
Old Age	4	3	5	5	4	3	7	6	6	5	5	
Theft	--	--	1	--	4	3	3	3	2	3	2	
Other	5	2	3	1	2	1	3	2	4	2	1	
Total Non-Predators	62	60	50	65	42	50	55	52	50	47	58	
Unknown Causes	9	5	7	7	19	13	8	7	10	15	10	
Total Loss 1/	100	100	100	100	100	100	100	100	100	100	100	

1/ Totals may not add due to rounding. 2/ Not available. -- Denotes less than 1 percent.

Peggy Stringer
State Statistician



Carmen Pennington
Agricultural Statistician