

# Death Loss Trends in the U.S. Sheep Industry: 1994-2019

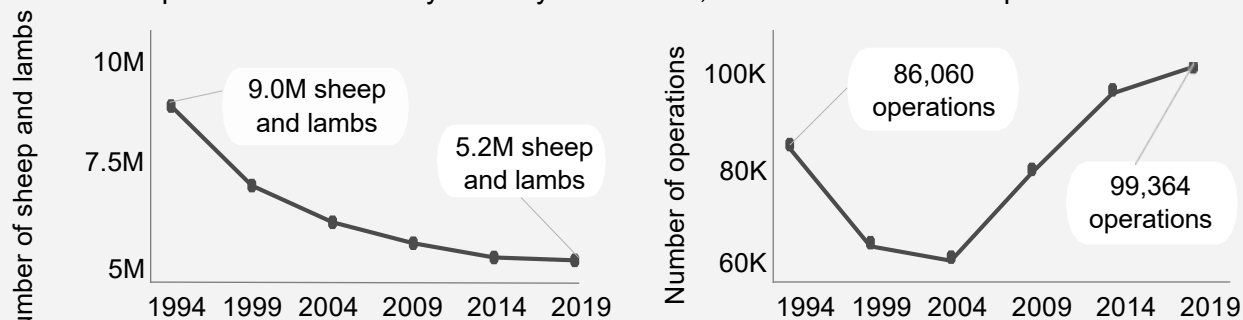
Sheep Death Loss Study 2020

June 2022

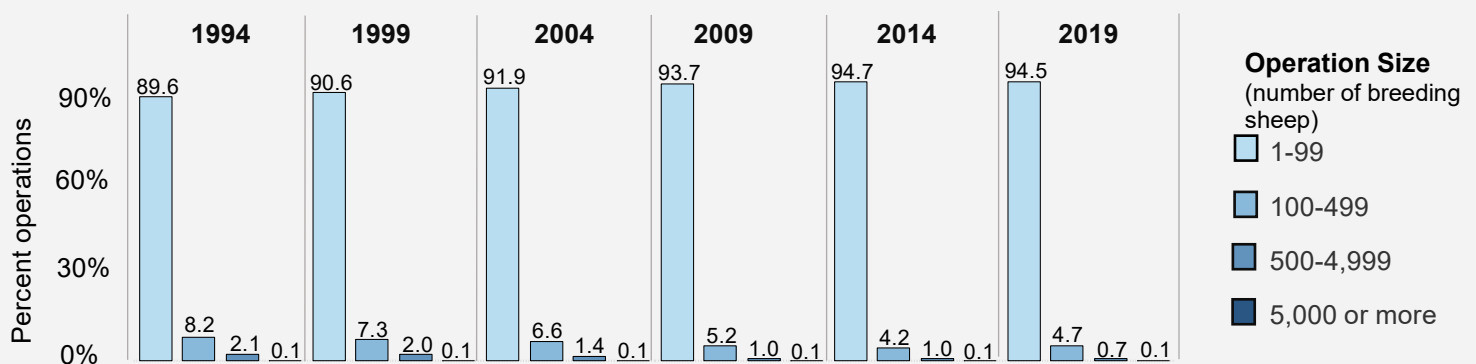
The USDA's National Animal Health Monitoring System (NAHMS), in collaboration with the National Agricultural Statistics Service (NASS) and Wildlife Services (WS), conducted the Sheep Death Loss 2020: Sheep and Lamb Predator and Nonpredator Death Loss in the United States Study in tandem with NASS' annual Sheep and Goat report in January 2020. This collaborative study has been taking place every five years since 1995 and aims to quantify the amounts, values, and causes of death loss in sheep and lambs in the United States.

## Small Operations Drove Industry Growth

Sheep and lamb inventory steadily decreased, while the number of operations are at a 25-year high.



Small operations made up an increasingly dominant share of sheep operations, accounting for **89.6 percent** of sheep operations in 1994 to **94.5 percent** in 2019.



Source: USDA-NASS, see the Sheep Death Loss 2020 Tableau dashboard for complete information  
<https://www.aphis.usda.gov/aphis/dashboards/tableau/sheep-death-dashboard>

## Value of 2019 Death Losses was \$121.6 Million



Note: Values of losses calculated as the product of the average of producer reported values of the sheep and lambs and the number of sheep and lambs lost.

## Percentage of Inventory Lost and Value of Losses

As a percentage of inventory, sheep and lamb losses have seen only slight increases over the past 25 years.



**12.0% of lamb crop lost in 2019**



**6.8% of sheep inventory lost in 2019**

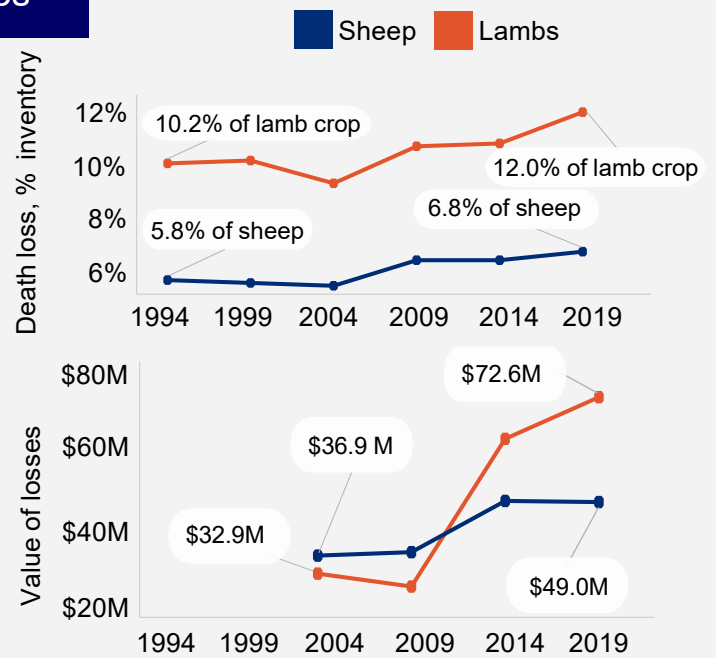
Overall value of losses, however, increased by **74 percent** over the past 15 years.



**\$39.8M increase in value of lambs lost since 2004**



**\$12.1M increase in value of sheep lost since 2004**



Note: Surveys before 2004 did not ask about value of losses. All values are reported in terms of January 2020 dollars using the U.S. Bureau of Labor Statistics CPI Inflation Calculator: [https://www.bls.gov/data/inflation\\_calculator.htm](https://www.bls.gov/data/inflation_calculator.htm).

## Top Causes of Sheep and Lamb Losses in 2019

**Predation** accounted for **32.6 percent** of **sheep** losses and **40.1 percent** of **lamb** losses, while **nonpredator causes** accounted for **67.4 percent** of **sheep** losses and **59.9 percent** of **lamb** losses in 2019.

These percentages have remained similar in each study year since 1994, though the percentage of losses of both sheep and lambs to predators saw marginal increases from 2014 to 2019.

### Nonpredator Causes



Of the **147,560 sheep** lost to **nonpredator** causes, the top 3 known causes by percentage of lost sheep were:



Of the **232,530 lambs** lost to **nonpredator** causes, the top 3 known causes by percentage of lost lambs were:



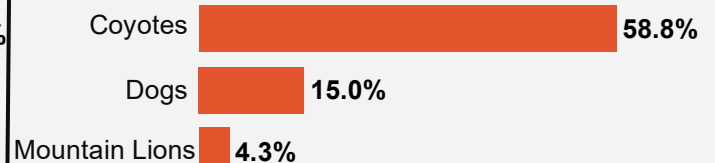
Note: The category "unknown nonpredator causes" is omitted. The category "digestive problems" is also omitted, because it was made up of multiple causes ("enterotoxemia," "internal parasites," and "other digestive problems").

### Predator Causes

Of the **71,440 sheep** lost to **predator** causes, the top 3 known causes by percentage of lost sheep were:



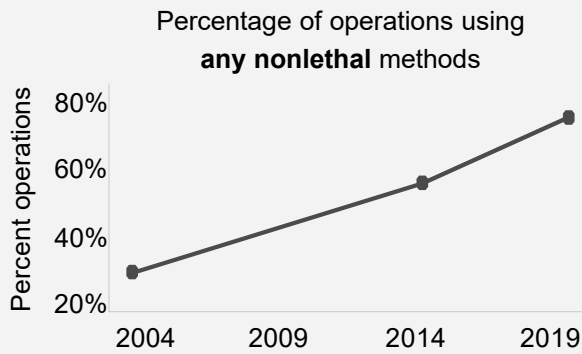
Of the **155,470 lambs** lost to **predator** causes, the top 3 known causes by percentage of lost lambs were:



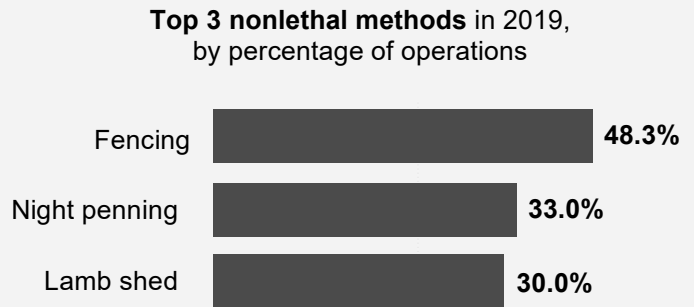
Note: The category "other predators" is omitted.

# Nonlethal and Lethal Predator Damage Management Methods

Between 2004 and 2019, the percentage of operations using any **nonlethal** methods increased from **31.9** to **77.1 percent** and, **of those**, the percentage using multiple nonlethal methods increased from **56.2** to **67.7 percent**.



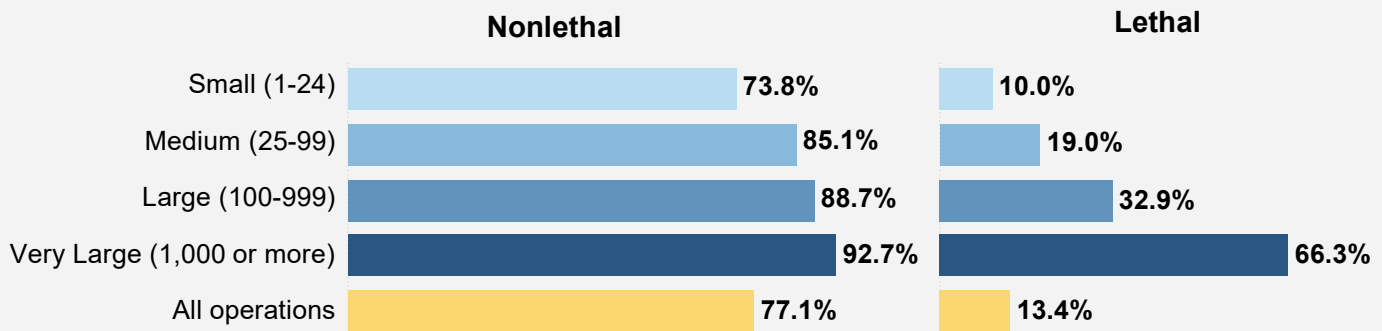
Note: No predator study done in 2009.



In 2019, **77.1 percent** of operations used any **nonlethal** methods, spending a total of **\$51.4M**.

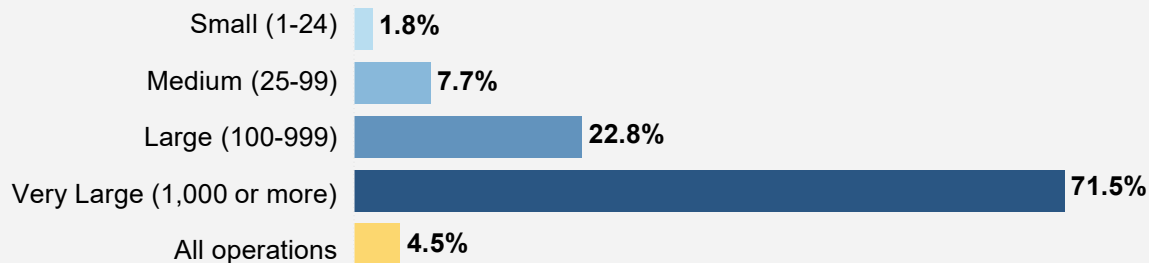
In 2019, **13.4 percent** of operations used any **lethal** methods, spending a total of **\$4.7M**.

Percentage of operations that used **any** management methods in 2019, by type (**nonlethal vs. lethal**), and by operation size (number of sheep and lambs)



In 2019, **4.5 percent** of operations used **government specialists**, but this varied by operation size.

Percentage of operations using **government specialist assistance** in managing predator damage in 2019, by operation size (number of sheep and lambs)



For a more detailed briefing of this study and a full report visit: [https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/nahms/nahms\\_general\\_studies](https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/monitoring-and-surveillance/nahms/nahms_general_studies) or scan the QR Code.

