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**Wildlife
Services**

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USDA Wildlife Services Protects Livestock

Assisting Farmers and Ranchers, Preventing Livestock Predation and Wildlife-Borne Diseases, Developing New Management Methods

Overview

Wildlife Services (WS), a program within the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, provides Federal leadership and expertise to resolve wildlife conflicts that threaten livestock. WS works in every State where livestock are raised to reduce predation, prevent the transmission of wildlife-borne diseases, and safeguard this important agricultural industry.

Understanding the Economic Impact of Livestock Predation

Coyotes, mountain lions, bears, and wolves kill thousands of lambs and calves each year. Livestock losses attributed to predators cost ranchers and producers more than $71 million annually, according to the most recent surveys by the National Agricultural Statistics Service (NASS). Sheep are the most frequent victims of predation. A 1999 NASS survey recorded 273,000 sheep and lamb losses due to predators. Coyotes are responsible for the majority of livestock predation. Another NASS survey found that in 2000, coyotes accounted for 65 percent of all cattle and calf losses to predators. A NASS survey completed in 1999 attributed 61 percent of sheep and lamb predation to coyotes. These losses occurred despite the use of multiple management tools and techniques to safeguard livestock. Without these protection measures, livestock losses could be as much as two to three times higher.

While some ranchers and livestock producers experience only minimal livestock losses to predators, others must deal with serious predation. In Western States like Idaho, where livestock usually graze on open range lands, lambs and calves are especially vulnerable to predators. Furthermore, small farmers and ranchers often feel the impact of livestock predation more significantly than larger livestock operations.

Managing Livestock Predation

According to a recent General Accounting Office (GAO) report on wildlife damage, by the time livestock producers and ranchers request assistance from WS, they have already employed a variety of nonlethal control measures and are continuing to experience livestock predation in spite of these efforts. Before beginning any type of damage management program, WS checks to see if the producer was properly utilizing nonlethal management measures, such as

scare tactics, fencing, and animal husbandry practices. In many cases, however, these measures by themselves are not sufficient to prevent livestock predation.

WS has the knowledge and skill as well as the equipment to track, capture, and remove predators from locations where they are causing serious damage. These efforts can significantly reduce predation in targeted areas, saving producers thousands of dollars in losses. If you compare the market value of all livestock saved in 1998 with the cost of all livestock protection programs in place, WS saved producers $3.00 to $6.75 for every dollar they spent to reduce damage. In addition, WS specialists also provide additional information and guidance to help producers better manage livestock predation. For example, WS regularly recommends the use of guard dogs and llamas, to protect sheep flocks and new lambs. Many nonlethal methods work well, but only in certain situations or locations, and some work only temporarily. When nonlethal methods prove ineffective, impractical, or unavailable, however, the GAO report concludes that lethal management methods are a legitimate means for effectively resolving wildlife conflicts. In these cases, the GAO report notes that WS strives to select the method that will kill the predator in the quickest and most humane way possible.

Developing New Management Methods

While lethal management is necessary in certain situations, considerable opportunity exists for developing effective nonlethal means of managing wildlife damage. The 2001 GAO report, which was prepared for Congress, found that WS' National Wildlife Research

Center (NWRC) has contributed much to the knowledge base about coyote ecology and behavior, significantly adding to the effort to develop more nonlethal tools. NWRC is the only Federal research facility devoted exclusively to resolving conflicts between people and wildlife. In Fiscal Year (FY) 2004, about $12 million or 75 percent of the program's total research funding was spent on efforts relating to developing or improving nonlethal controls.

Capture technology has been largely reliant on tools and materials that were developed hundreds of years ago. Although effective, some of these capture methods have raised concerns about animal welfare. In response, NWRC scientists have developed and tested new and alternative capture devices and restraining methods that safely restrain captured animals. Behavioral research is also underway to study visual, mechanical, and odor cue attractants that will change capture technology. In addition, research is being conducted to develop more effective frightening devices that employ lights and sirens to keep predators at bay. Scientists at NWRC are responsible for the development and use of a radio-activated "wolf alarm" that is an extremely important nonlethal tool for producers trying to manage wolf predation in Idaho. NWRC researchers are also studying reproduction in coyotes and how this affects livestock predation. Study results have shown that surgically-sterilized coyotes were significantly less likely to prey on lambs than were coyotes with pups to feed.

This critical research will provide new damage management options for livestock producers and enable WS to expand the list of tools it has available to resolve predator conflicts when they are too significant for producers to handle on their own.

Protecting Livestock from Wildlife-Borne Diseases

Although livestock predation is a serious problem affecting producers and ranches, it is not the only issue impacting the health of livestock. Wildlife-borne diseases can also pose a serious threat to livestock. In FY 2004, WS hired 23 wildlife disease biologists to conduct wildlife disease surveillance and provide assistance to Federal, State, Tribal, and other entities.

For example, bovine tuberculosis (TB) is a disease that attacks the respiratory system and is capable of infecting most mammals. The presence of bovine TB in Michigan's white-tailed deer population puts people, livestock, and wildlife at risk. In addition, it appears that captive cervids (members of the deer family) and free-ranging wildlife may also be a reservoir for the disease. WS has a wildlife disease biologist stationed in Michigan, and has sent an additional eight wildlife disease biologists during times of high demand to assist with surveillance of the disease. As part of this surveillance effort, WS helped to test approximately 9,500 deer in Michigan for bovine TB. WS is also developing research, disease management, and educational tools to complement the efforts of other Federal and State agencies. WS is concluding a research project to study the interaction of deer and cattle, and another research project is investigating whether coyotes may be reservoirs of bovine TB.

Chronic wasting disease (CWD) is another disease that is carried by deer as well as elk. This fatal neurological disease can be transferred from wild populations to captive cervids. Due to greater testing of free-ranging cervid populations, the number of states

reporting confirmed cases of CWD continues to increase. In 2002 alone, CWD was found for the first time in south-central Wisconsin, southwestern South Dakota, the western slope of Colorado, southern New Mexico, and northern Illinois. WS' wildlife disease biologists assisted with CWD surveillance in 17 states and the District of Columbia in FY 2004. The program also has the expertise to assist with depopulation efforts and to help landowners obtain permits to remove deer from their property in order to protect their herds from potentially diseased wildlife.

Diseases such as histoplasmosis and salmonella can also threaten livestock. These diseases are carried in bird feces and can contaminate feedlots when large numbers of birds are present. Livestock that become infected with these diseases frequently lose weight, and dairy cattle can experience a significant drop in milk production. WS works with producers to test birds collected at their feedlots for diseases, while also working to reduce the attractiveness of these feedlots to birds by making it more difficult to obtain feed. These efforts benefit not only livestock, but also feedlot employees, and American consumers.

Livestock Predation Statistics

- Livestock losses attributed to predators, predominantly coyotes, reach about $71 million annually
- In addition to coyotes, mountain lions, bears, wolves, foxes, bobcats, and eagles also prey on livestock.
- Sheep and lamb losses to predators in the United States totaled 273,000 in 1999. A NASS study valued these livestock losses at $16.5 million.
- Cattle and calf losses to predators in the United States totaled 147,000 head during 2000. A NASS study valued these livestock losses at $51.6 million.
- In Arizona, New Mexico, and Texas, the three major goat-producing States, 61,000 goats and kids were lost to predator in 1999. A NASS study valued these livestock losses at $3.4 million.
- In the absence of a professional, accountable damage management program, livestock losses to predators could be as much as two to three times higher.
- According to the National Commission on Small Farms, approximately 92 percent of all U.S. farms are considered small. These producers especially feel the impact of livestock predation.
- According to a 2000 NASS study, U.S. farmers and ranchers spent $184.9 million on nonlethal measures to prevent predation of cattle and calves.
- In FY 2004, 75 percent of WS' research funding was directed toward the development of nonlethal damage management tools and techniques.

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