Wildlife Services' Nonlethal Initiative

Wildlife Services (WS) — part of the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) — helps resolve conflicts between people and wildlife. WS uses an integrated wildlife damage management approach that includes both nonlethal and lethal methods, where necessary and appropriate.

The Nonlethal Initiative

In 2020, WS received funding from Congress to expand research and increase use of nonlethal methods to protect livestock from large predators. This effort is called the "Nonlethal Initiative," and Congress has continued to fund it every year. In 2022, Congress increased the funding to include nonlethal beaver damage management and related research. WS uses this funding to help livestock producers in 12 States: Arizona, California, Colorado, Idaho, Michigan, Minnesota, Montana, New Mexico, Oregon, Washington, Wisconsin, and Wyoming. These States were selected because they report many livestock conflicts with large predators.

How Does the Nonlethal Initiative Work?

Nonlethal Initiative funding is added to WS' annual budget for wildlife damage management and research. This means WS continues to provide integrated methods for livestock protection nationwide under WS' annual budget. The Nonlethal Initiative funding is used exclusively for nonlethal-specific activities in one of the 12 designated States. The funding allows WS to help more livestock producers dealing with large predators and more people experiencing beaver damage. It also supports research into new and more effective nonlethal methods to protect livestock from large predators and prevent damage from beavers.

Scan the QR code to learn more about the Nonlethal Initiative.



Nonlethal Beaver Damage Management Methods

WS manages beaver damage to protect infrastructure, natural resources, agricultural resources, and wetland habitats. Methods include water flow devices (pond levelers), exclusionary fencing, tree wrapping/protection, and beaver relocation, where available. Water flow devices reduce or eliminate flooding from beaver dams. Exclusion fences can keep beavers out of culverts and agricultural operations. Tree-wrapping projects protect trees in riparian habitats. In some areas, beavers causing conflict can be live-trapped, evaluated, and released in watersheds where they may aid in restoration goals. All activities are conducted within established regulations.

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Nonlethal Livestock Protection Methods

For decades, WS has helped U.S. livestock producers protect their animals from predators using nonlethal methods. The Nonlethal Initiative allows WS to offer these tools to more producers and hire dedicated personnel to implement them. Although the types of nonlethal livestock protection methods may vary by State, the most used methods include fencing, fladry, range riding, and scare devices.

Fencing: WS installs electric and permanent predator exclusion fencing. These fences are built specific to each site to keep predators out. For example, WS will place electric fencing around beehives to protect them from bears. Some permanent fences have additional features like outriggers and skirts to prevent animals from climbing over or digging under the fence.



Fladry: Fladry is a temporary visual barrier made of brightly colored flags hung along the perimeter of a pasture. Wolves are often cautious about crossing the fladry barrier. Fladry must be regularly maintained and moved every 60-90 days to ensure predators stay wary. Electrified fladry, called turbo fladry, physically reinforces the barrier.



Range Riding: WS range riders provide frequent human presence around livestock herds by riding horseback or driving an all-terrain vehicle. They traverse difficult landscapes when predators are most active (dawn and dusk). Range riders deter predators, report their presence to ranchers, and minimize livestock loss by intervening when predators attempt to prey on livestock. They also monitor livestock health and locate carcasses for timely depredation investigations.



Scare Devices: Scare devices are audio and/or visual deterrents used with other methods to reduce conflict with predators. They make loud noises and/or emit flashing light and can be activated by the presence of a radio-collared animal, motion, or programmed to operate at random or scheduled intervals. These devices range from small portable sizes to large units built onto trailers. Power sources include batteries, generators, or solar cells. Some devices require active human operation, like pyrotechnics or drones, while others work passively to mimic human presence. Scare devices must be well-maintained, frequently moved, and used as part of a multi-faceted strategy.

