



Predation Control of Livestock

Check with your state's Wildlife Services (WS), a program within the USDA's Animal and Plant Health Inspection Service (APHIS) regarding questions of predation prior to taking any immediate action against predators.

Employ a checklist of all facilities to ensure they are secure/locked.

- **Buildings/barns**
- **Grain/feed room**
- **Pens, holding facilities**

Introduction:

Predators such as coyotes, bears, and foxes play a crucial role in dynamic ecosystems. As keystone species they help maintain healthy populations of herbivores such as deer. This relationship enables a balance among all trophic levels within an ecosystem by suppressing overpopulated herbivores that would otherwise overgraze and lead to habitat damage. Predators, however, pose a great threat to livestock. Control efforts are made on national, state, and local levels to assist in the development and implementation of predation control methods. Predation accounts for the majority of livestock losses in agriculture, thus the importance of practicing preventative methods. According to the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) in 2006, predators accounted for a loss of 190,000 head of cattle (a monetary loss of 92.7 million dollars). The most important aspect of predation control is to incorporate an integrated approach and initiate these methods as soon as a problem is noticed. There are many regulations, both federal and state, to consider prior to implementing an approach for problem wildlife. Prior to taking any direct action against predators contact your local Wildlife Services (WS), a program within the USDA's Animal and Plant Health Inspection Services (APHIS).

Best Management Practices:

Evaluate specific needs and concerns and develop a damage management plan based on your needs. Remember that the most important aspect of an effective predation control plan is to integrate various techniques. The following control methods should be considered:

Exclusion:

Fencing- the following should be considered when installing a fence: height, length, terrain, and materials such as wood, wire-woven, barbed, cable, or tensile that is either electrified or not. Fencing can become expensive depending on material used, therefore, it is most cost effective when predation identified is high, and can be incorporated with other means of predation control. Get into the habit of checking all your locks throughout all facilities to ensure their security.

Guard Animals- usually consist of dogs, donkeys, llamas, or mules, and sometimes geese. This method may constitute an investment of both time and money, and sometimes does not guarantee effectiveness. In order to increase effectiveness of guard animals other predation control methods must be integrated. When deciding to employ a guard animal in your management plan, consider the size and species of the livestock, the environment they are housed in, and other control methods you will integrate. Always post signs to alert neighbors of guard dog.

Cultural Methods:

Animal Husbandry- a careful assessment of husbandry practices such as confining when birthing, corralling livestock at night, and removing carcasses immediately will lessen the threat of predation. Be aware of life cycles, such as birthing; the time your livestock is birthing coincides with higher rates of predation.

Waste - properly store waste in tightly sealed containers and reduce access.

Habitat Control/Modification:

Remove- potential habitat for undesired wildlife such as brush piles, weed patches, tall vegetation, dumps, and other debris that might offer advantageous cover.

Location- allow for pasture near buildings and human activity to contain highly susceptible animals such as, pregnant livestock and young. This will allow for quick response time to predators, and may deter predators due to human activity.

Frightening Devices and Repellents:

Frightening Devices- Employing scare tactics with sound, odor, and sight can be effective. Examples are propane cannons, sirens, radios, lasers and bright lights. It is important to note that when utilizing such methods, the target predator usually adapts to the tactics quickly and therefore these methods must be integrated with others to be effective.

Repellents- are used to deter predators from entering an area of concern. Some repellents used include urine from predators of the problem animal or chemically formulated substances such as mothballs.

Identifying Predation:

There are many causes of livestock death ranging from disease, to old age, or predation; most often predation is the cause. Assessing the carcass and surrounding area can help to differentiate between causes of death and identify the species of predator; however, it does not guarantee an exact identification. An excellent publication called, "Procedures for Evaluating Predation on Livestock and Wildlife" clarifies exact details involved in the examining process. The web site can be accessed at

<http://texnat.tamu.edu/ranchref/predator/pred.htm>

There are several factors to consider when distinguishing between likely predators. Species vary in food preference, method of attack, and feeding behavior. Therefore, the entire scene of attack must be carefully examined. Always wear proper protective clothing when examining. The following are general guidelines to consider when identifying a predator:

1. Examine the wound and feeding activity- where on the carcass are the wounds located, how many are there, how deep they are, and do teeth, claws, or talons make them. Is the body dismantled or intact?
2. If possible, locate the exact site of attack. Proceed cautiously throughout the site, so as not

to destroy any evidence such as scat, prints, hair or any other data that would help to identify the predator.

3. Examine the carcass or wounded animal again for bruises, broken bones, hemorrhages, and feeding. Predators exhibit certain attack and feeding behaviors based upon their species. For example, a coyote will most likely attack at the throat of an animal, while a bear will usually attack from the front using its claws. During this stage of evaluating the carcass it is very important not to move it extensively. The body may be altered making it difficult for a professional to positively identify the predator.

Resources:

Browns, James E. and Wade, Dale A. Jan. 1997. "Procedures for Evaluating Predation on Livestock and Wildlife". Texas A&M University.
<<http://texnat.tamu.edu/ranchref/predator/pred.htm>>

General Laws of Massachusetts related to relocating and shooting predators can be found at the following two sites respectively:
<www.mass.gov/dfwele/dfw/wildlife/living/moving_wildlife.htm

<<http://www.mass.gov/legis/laws/mgl/131-37.htm>>

Gegner, Lance E. April 2002. "Predation Control for Sustainable and Organic Livestock Production". Appropriate Technology Transfer for Rural Areas (ATTRA): National Sustainable Agriculture Information Service.

Harwell, Lynne and Pinkerton, Frank. "Housing, Fencing, Working Facilities & Predators".
<<http://www.goatworld.com/articles/fencing/fencing1.shtml>>

<<http://www.attra.ncat.org/attra-pub/predator.html>>

The ATTRA organization can also be contacted at 1-800-346-9140

The University of Maryland has an excellent web site containing numerous links to many resources. The site can be accessed at
<http://www.sheepandgoat.com>

The Wildlife Service program helps to ensure protection of agricultural resources through environmentally sound, humane, and effective solutions. They can be contacted

at (301) 734-7921 or at
http://www.aphis.usda.gov/wildlife_damage/

The web site, “Internet Center for Wildlife Damage Management”, contains a compilation of extensive information regarding specific predator identification, control, and management. The site can be accessed at www.icwdm.org/handbook/index.asp.

Two other local resources to contact are animal control and the environmental police. Contact information for these sources would be listed in the local phonebook.

For more information visit www.umass.edu/cdl

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