Guidelines For Reducing Damage From Big Game Animals

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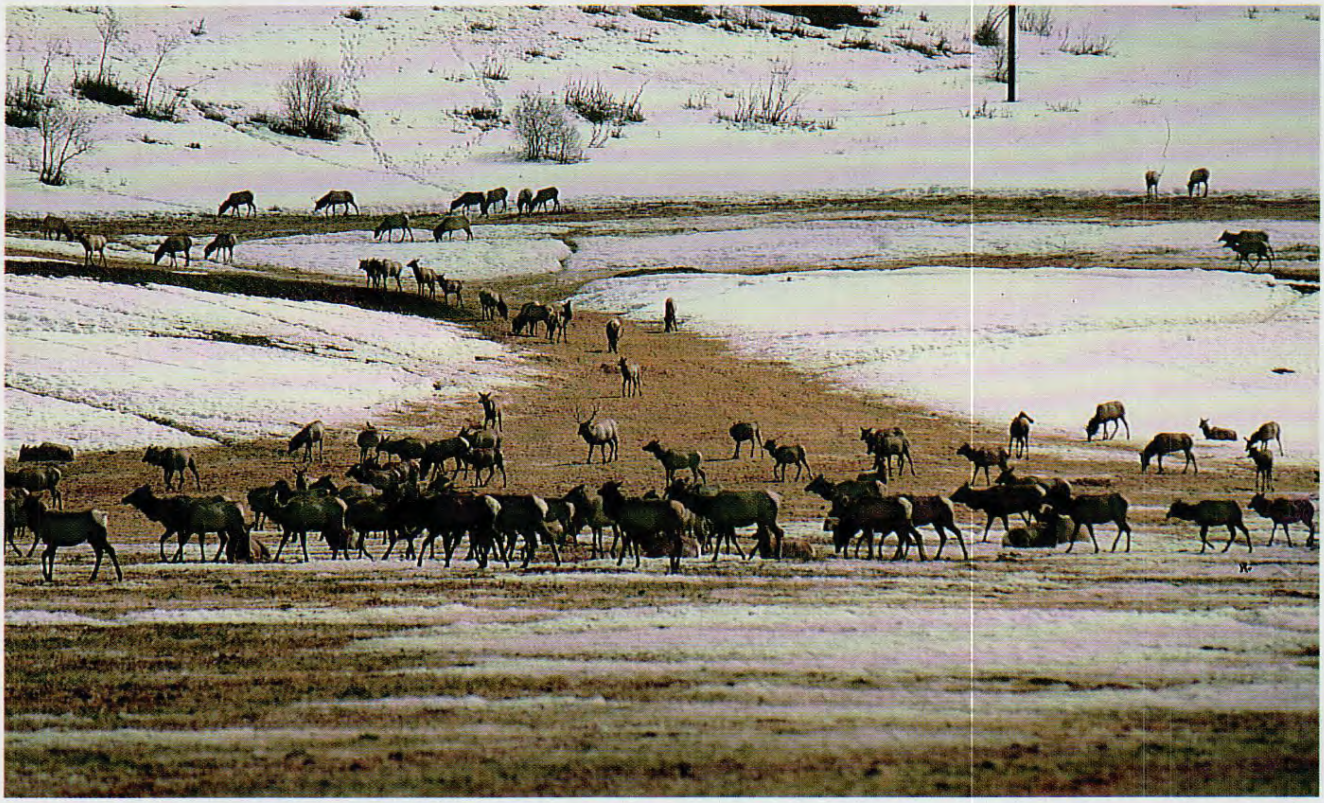
Mule deer often find their way into hay meant for domestic animals. It is a problem that has plagued Wyoming ranchers for years. When wildlife eat, or otherwise destroy, feed intended for livestock it cuts into the landowner's profits. Fortunately, depredation problems can be controlled.

From the homesteader's garden grown to feed his family through the winter to today's major agricultural tracts needed to feed the world's population, the conflict between man and big game animals has continued and expanded. Increasing human populations with their expanding housing subdivisions and new agricultural lands have dramatically reduced big game habitat, forcing some of these animals to feed on agricultural crops for survival. Resulting big game depredation to lands and property can be minimal or substantial, with economic and weather conditions dictating the amount of depredation landowners will tolerate.

The Wyoming Game and Fish Department continually strives to minimize depredation losses through development of damage prevention and control techniques and offers monetary compensation to landowners suffering big game depredation losses. Department personnel are available to offer advice and or assistance to landowners to reduce big game depredation losses.

Habitat Extension Services

WYOMING GAME AND FISH DEPARTMENT



In some parts of Wyoming, elk have become notorious for the damage they inflict on private lands. But elk are not the only culprits. Ranchers also suffer from the depredations of antelope, mule deer, bighorn sheep, and moose.

Big Game Problems

Depredation by big game animals (antelope, mule deer, white-tailed deer, elk, moose, and bighorn sheep) occurs in a variety of forms. Standing crops such as wheat, corn, barley, oats, alfalfa, sugar beets, beans, native hay, and sunflowers can be damaged by big game depredation. These losses occur when big game animals eat living plants or maturing seed heads. Some loss also occurs through trampling and/or knocking seeds from mature heads as animals move through fields. This loss commonly occurs from June to September. Unprotected, stored crops (hay, silage, and corn piles) are affected by big game animals principally through consumption and, to a lesser degree, by trampling and defecation. Damage to these crops commonly occurs from December to March. The amount of damage depends on weather and the availabilty of native forage.

Ornamental tree depredation is on the increase where housing developments have encroached upon native habitats and is a year-round phenomenon. Ornamental trees and shrubs planted around residences have replaced native browse plants. These plants are often browsed or antler rubbed by animals residing in these areas, reducing the esthetic value of the ornamentals, or, in extreme cases, killing them.

Proposed Solutions

Solutions to big game depredation problems fall into two categories: prevention and control. There is a major difference between the two; prevention addresses the cause, while control addresses only the symptom. If both options are available, the use of preventative measures is encouraged.

Preventative Measures

Preventative measures are most successful if they begin before damage problems develop and if more than one measure is employed.

Planting and Harvesting Alternatives

Depredated "hot spots," such as fields near woody areas, marshes, or bodies of water that attract big game animals should be planted with an early-maturing crop and harvested in early fall. This technique can drastically curtail wildlife damage by removing vulnerable crops before wild animals begin using them.

Once harvest begins, it should proceed as rapidly as possible to minimize the time grain is exposed to big game. Grain crops should be combined rather than wind-rowed to immediately remove the grain from the field. Grain driers and desiccants, coupled with combining, offer an effective substitute to field drying and should

Most big game animals will eat baled hay if given the opportunity. If they can get to it, they will take it. In most cases, a tall, well-constructed fence will preclude depredation.

be considered when crop loss reduction is the goal.

Harvested fields should be left unplowed to provide alternative foods for big game in the area. Big game species will use these harvested areas more readily than uncut fields, resulting in reduced losses to surrounding unharvested crops.

Corn crops are normally harvested immediately following a hard freeze. Unfortunately, this practice leaves corn ears vulnerable to mule deer and other big game depredation. An alternative to this harvest method involves cutting corn as silage. This practice removes corn plants before major deer depredation to the corn ears can occur.

Crop Alternatives

Where possible, early ripening crops should be substituted for slower growing crops more susceptible to wildlife damage. Planting an early maturing variety of the same crop may be the only change necessary to minimize depredation losses to an area.

Grain fields continually susceptible to wildlife depredation may need to be planted with forage crops to reduce big game damage. For example, lower-growing crops suffering heavy antelope depredation can be replaced with tall-growing crops. Because of the reduced visibility, antelope tend to avoid fields of taller crops. This reduces damage and may exclude antelope from other vulnerable crops. Alfalfa fields continually depredated by antelope and deer may have to be replaced with introduced grass hay to reduce damage.

Planting a less commercially valuable, but attractive "lure crop" may divert wildlife from more valuable cash crops and minimize financial losses. Lure big game animals from one area to another by planting grasses, legumes, or other alternative forage crops. Lands in the Conservation Reserve Program (CRP) are ideal locations for wildlife lure crop establishment.

Lure crops coupled with water developments (guzzlers, potholes, and wells) will further reduce big game damage to cash crops. Improving the condition of surrounding native habitats for big game may also help reduce cash crop depredation.

When planting ornamental trees and/or shrubs, a landholder should choose unpalatable or less palatable species when possible. When big game damage to ornamental shrubbery occurs, replant the area with hardier, less palatable native plants to reduce big game browsing damage. Please consult Wyoming Game and Fish Department habitat extension bulletin number 45, "*Homeowner*'s Guide to Solving Wildlife Problems" for a list of recommended tree and shrub species. As with rural landowners, residential inhabitants can realize a reduction in browsing damage to ornamental trees and shrubs by improving habitat in surrounding native tracts.

Fencing

Depending on the big game species affecting an area, fences are effective for reducing big game damage to growing or stored crops. Antelope can be excluded from fields using standard 39-inch or 48-inch woven wire fencing or by attaching an additional strand(s) of barbed wire to the base of an existing fence to keep antelope from crawling underneath. Deer, elk, and moose are much more difficult to exclude from fields,

Fences can be used to protect stored and growing crops from depredation by big game. However, it's easier to protect against some species than others. Antelope are easy to keep out, but it takes a tall fence to keep moose and elk away.

although the use of temporary electric fencing has proven somewhat successful.

Stored crops can be fenced to effectively exclude big game species. A 72-inch woven wire or remesh fence will keep antelope and mule deer out of stored crops. Excluding elk and moose requires at least a 96-inch woven wire fence. Remember that the fenced area must be large enough to allow for drifting snow around haystacks, and gates must be made of similar materials and maintained in good condition.

Temporary fences of chicken wire, snow fence, or woven wire can be erected around ornamental trees and shrubs to prevent browsing and antler rubbing. Although they may not be pretty, these fences will prevent tree and shrub disfigurement by big game species. When mature, more ornamental trees and shrubs can tolerate some browsing.

Control Measures

Control measures must be implemented immediately once depredation begins. The longer the delay between the time big game begin feeding and the onset of control measures, the more difficult it becomes to move depredating animals. Using more than one control device improves the effectiveness of these measures.

Frightening Devices

One of the most useful control devices is the propane exploder or "zon gun." This device operates on propane gas which slowly leaks into the chamber of the gun and then is ignited at a preset time, causing an explosion which frightens wildlife. Zon guns can be adjusted to fire once every five to fifteen minutes, and should be placed in a ratio of one gun per fifty acres of cropland. To avoid conditioning the animals to the noise, zon gun locations should be changed every two or three days.

Firearms are useful and effective scare devices for dispersing big game animals. Shots should be fired in the air near animals to move them away from affected fields. Exercise caution when using firearms; be aware of the background, the shot impact area, and the potential for the animals to run into the shot path. Remember that, while scaring or harassing depredating big game animals is legal, killing big game animals out of season and without a license is not.

Cracker shell explosives are similar to firearms and are used in the same manner. The charges, fired from a 12 gauge shotgun, are designed to explode 50 to 75 yards from the operator over the heads of depredating animals. Similarly, bird bombs, racket bombs, and whistle bombs are 15 or 17 mm projectiles fired from a special pistol using .22 caliber blanks. These devices explode or make screeching noises over

Erecting fences for the express purpose of protecting large tracts of land from depredation by big game is time-consuming and expensive. Frightening devices, repellants and hunting might be better solutions.

the animals to scare them away. During dry conditions, exercise caution when using these or any other pyrotechnics–they can start fires.

Fuse-rope offers an advantage over other types of explosives by reducing the operator's time in the field. Fuse-rope is hung from a tree or post near or in affected fields. Once lit, fuse-rope burns slowly (one foot per hour) periodically setting off firecrackers imbedded in it. Under windy conditions, the rope will burn faster and should be coiled around the post or fence to prevent wind action from whipping the rope and knocking out the firecracker. Under dry conditions, flammable materials should be removed from the rope site or a half-barrel placed under the rope to catch the firecrackers.

Hazing with motor vehicles will disperse depredating animals for a time, but the animals soon return and continue foraging. Hazing can be effective when used to move big game animals lingering on transitional ranges on their way to summer or winter ranges.

Repellants

Chemical repellants sprayed directly on target crops or in the immediate area have proven effective in minimizing damage by making crops unpalatable to big game species. Repellants are of two types: area repellants and contact repellants. Area repellants are strong-smelling agents normally applied near affected crops. Contact repellants repel wildlife through taste rather than smell and are applied directly on affected areas. Because of this approach, contact repellants are generally more effective at reducing damage than are area repellants. However, they are also more labor intensive to apply in effective amounts and generally cannot be applied to stored crops. To increase their effectiveness, apply repellants before depredating animals have fed extensively on affected vegetation. Remember, also, that reapplication of repellants is necessary after a rain or snowfall.

Hunting

Hunting is the most effective method for reducing depredation losses to big game species. Hunting in or near the depredated fields removes those animals causing damage and discourages others from using the area. As most hunting seasons begin after major depredation has occurred in the summer and end before depredation occurs in the winter, planning and cooperation between Wyoming Game and Fish

The report of a propane exploder, or "zon gun", does a good job of scaring off big game animals. The device can be set to fire once every five to 15 minutes.

Department personnel and landowners is necessary to effectively reduce depredation in successive years. Hunting season modification through earlier openings, longer seasons, additional doe/fawn or either sex licenses, or increasing the size of the hunt unit can address depredation problems. Cooperation between adjoining landowners is needed to adequately harvest depredating animals in damage-prone areas. Landowners can help this situation by reducing the access fee charged to hunters, and/or not charging doe/fawn license holders to hunt on private lands. In an effort to encourage landowners to allow hunting on private lands, the Wyoming Game and Fish Department attaches a landowner coupon to each antelope, deer, and elk license. Following collection from hunters, these coupons can be redeemed by the landowner for animals killed on their property.

In areas sustaining significant big game damage before or after established hunting season, a special depredation hunting season can be authorized by the Wyoming Game and Fish Commission. This special hunt targets those animals causing damage to an area.

Where to Find Help

Stationed in each of the seven game districts administered by the Wyoming Game and Fish Department is a damage control warden who provides landowners with advice on prevention and control of wildlife damage. In addition to the damage control warden, each district has one supervisor, an enforcement specialist, and an average of seven game wardens and three game biologists who spend a portion of their time working with landowners on damage problems. Consult these personnel for assistance.

Devices such as cracker shells, zon guns, and repellants are available from Wyoming Game and Fish Department district offices for use during big game depredation periods. Temporary and permanent fencing materials are also available for use in protecting stored crops from big game animals. Contact your district office for more information about reducing depredation from big game and refer to Wyoming Game and Fish Department habitat extension bulletins number 59, "Reducing Waterfowl-Related Cropland Damage" and number 45, "Homeowner's Guide to Solving Wildlife Conflicts."

Written by John Demaree of the Wyoming Game and Fish Department through the Wyoming Cooperative Fish and Wildlife Research Unit.

This publication is one in a series of habitat extension bulletins produced by the Wyoming Game and Fish Department. Call 1-800-842-1934 for additional information or assistance.