Livestock Guarding Dogs and Predator Control: A Solution or Just Another Tool?

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The use of guarding dogs to protect sheep has become popular in the last decade. Some have proclaimed it as the solution to the predator problem, thereby eliminating need for various lethal control techniques. Others have claimed the method does not work or its does not have merit on an industry-wide basis. Data indicate that both extreme positions are unfounded. Guarding dogs do not work everywhere, for everyone. They are not the industry-wide solution to the predator problem. However, a large part of the solution for a growing number of sheep producers is the use of guard dogs, and they may be beneficial in a wide variety of conditions. In this article we examine some of the facts and fallacies about guarding dogs on both ends of the spectrum.

FALLACY: GUARDING DOGS ARE NOT A VIABLE TECHNIQUE FOR REDUCING PREDATION ON AN INDUSTRY—WIDE BASIS

At the U.S. Sheep Experiment Station (USSES) guarding dogs have been successful in approximately two-thirds of the trials where they have been tested for their ability to protect sheep from predators in fenced or open range grazing conditions. About one third of the dogs failed in at least one of their trials. We have the option of moving a dog to different working environments in an effort to find a set of conditions under which the dog can work effectively. This option is usually not feasible for producers who purchase one dog for use on their ranch. Nevertheless, a recent survey of people who were using a dog to protect their livestock, showed that 109 of 137 dogs (80%) were successful. Researchers at the New England Farm Center in Amherst, Mass., report a similar rating for more than 100 dogs working across the United States (14% excellent, 43% good, 22% fair).

We have observed success when using dogs in a variety of conditions including those in which dogs were maintained with more than 1,000 head of herded sheep on open rangeland, with from 35 to more than 1,000 sheep in fenced pastures ranging in size from 10 to almost 1,000 acres, and with sheep in feedlots. Better dogs are generally required for use on open rangeland, and a good dog will be of benefit in reducing predation in almost any situation.

Many livestock producers who are using guarding dogs to protect their flocks are very pleased with the results. "I hear the dog barking at night, but I never go out. The dog has handled everything this past summer and fall. . . On more than one occasion this summer the coyotes would pass by my sheep and attack the neighbor's (sheep). . . All of the neighbors who run sheep had to lock their sheep in at night to keep the coyotes from killing lambs at a regular rate." The guard dogs "have brought us peace of mind. They are nocturnal patrollers. Since acquiring the dogs, we do not lock our house, we leave the keys in the ignition of all ranch vehicles, and our sheep, dairy goats, angora goats, chickens and ducks are safe from predators and/or theft."

Komondor Guard Dog.

FALLACY: GUARDING DOGS ARE THE SOLUTION TO THE PREDATOR PROBLEM

A farm flock producer with 300 ewes lost about 100 lambs in 1980 to all causes. He estimated that at least half of them were taken by predators. In 1981 he used a guarding dog with his flock, and his losses were similar to those of the previous year. Regardless of the reasons, the dog did not solve his predation problem.

In another farm flock operation, a guarding dog would not patrol the area around the sheep but persisted in remaining near the ranch house or wherever the owner happened to be. All efforts to encourage the dog to remain near the sheep failed, and predation continued unchecked. A second dog also failed to remain with the sheep sufficiently to control predation. An electric wire added to the fence was finally found to be a help in reducing predation. Undoubtedly a dog

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that would stay with the sheep would have been a significant asset in this situation, but such a dog was not found. Again, guarding dogs did not solve the predation problem.

In about 30% of the trials conducted at the USSES, guarding dogs failed to significantly reduce predation in both fenced pasture and open rangeland grazing conditions. The reasons for the failures are varied, but the fact remains that under certain conditions, some dogs were not able to sufficiently reduce predation to the point of being an asset.

dents they caused the death of about 20 sheep. Both dogs were given away as pets. Not only were dogs not the solution to this producer's predator problem, they actually contributed to the problem and were the source of a significant economic loss.

A REALISTIC VIEWPOINT

As with most issues of interest and controversy, there are extreme viewpoints between which exists a middle ground that may accurately depict reality. We believe the correct viewpoint with using dogs for predator control rests in the middle ground. Clearly some dogs fail, but more will succeed; dogs cannot solve everyone's predator problems, but they can be a part of the solution for many.

Great Pyrenees with sheep at USSES

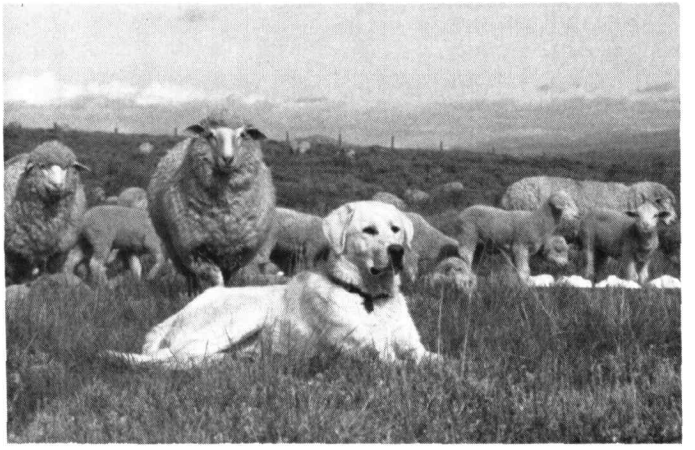
The ability to perform the guarding role is variable among dogs, and conditions vary within and between livestock operations. Some operations may not be suited for a guarding dog. As an example, we attempted to incorporate a guarding dog into a range sheep operation in Nevada. The band was never fenced in a pasture, and therefore, the sheep could not be socialized to the dog. Despite the dog's persistence in trying to remain near the band, the sheep moved away continually causing significant problems for the herder. Proper management of the band was not possible under these conditions. The dog did not solve the predation problem for the producer. Perhaps results would have been different had a dog been used that remained somewhat removed from the band. However, the effort to find such a dog was prohibitive.

A producer purchased two six-month-old guarding pups that had been raised with lambs. Between the purchase price, shipping, and other costs, the producer estimated he had invested about $1,000 in the dogs. During the first summer one was kept tied while the other patrolled, and the dogs did well and apparently reduced predation. When the dogs were about one year old they were released together. They began to chase sheep in play, and after several inci-

Perhaps a reason for the popularity on the one hand and the disdain on the other hand with guarding dogs, rests with the relative simplicity of the process. Dogs have been here about as long as man has reared domestic livestock, yet in this country they have been used very little with respect to livestock protection. The fact that some dogs are now deterring predation may seem unbelievable to some people, so much so that they might think, "If dogs are really any good for reducing depredation, why haven't they been used long before now?" Dogs *have* been used to protect livestock for centuries in Europe, but in this country, many sheep and goat producers had not heard of using dogs as livestock protectors until recently. In addition, our technologically oriented society has largely relied on other methods to control predation.

Twenty of 45 respondents to questions concerning their use of guarding dogs for predator control listed other bene-

fits in addition to a reduction in predation. Eleven of the 20 stated that their dogs offered protection to family members and that the dogs were a deterrent to theft and destruction of farm property. It seems clear that other methods of predator control do not offer similar ancillary benefits. A producer with a small farm flock of 30 ewes on 25 acres described another benefit, "Our main problem is with roaming dogs,



Akbash Dog (Turkish Dog) at USSES with sheep.

both stray(s) and neighbor's, and both will kill indiscriminantly. It's tough to shoot a neighbor kid's pet, so guard dogs answer the question quite nicely. . . Their presence alone is unquestionably the greatest deterrent possible." How many sheep operations in this country are in urbanized settings where the use of lethal controls is difficult if not impossible?

A western sheep producer with 300 ewes was forced to corral his sheep nightly to keep predation under control. With the acquisition of a successful guard dog, the producer was able to leave his sheep out at night and stated, "Because I don't lock my sheep up I can better utilize my pastures." Another producer with a guard dog stated, "We can use pastures we probably could not use otherwise." While it is true that other effective methods of control could also have provided this benefit, dogs did provide it to these producers.

Considerations for Using Livestock Guarding Dogs

There is currently a good selection of literature available concerning the use of dogs to protect livestock, and a lack of space precludes an adequate discussion of important points in this article. Briefly, however, we have primarily used three breeds of dog in our research, Komondors, Great Pyrenees, and Akbash Dogs. The Pyrenees has been by far the most successful breed used on open rangeland, and all breeds have had relatively equal success in fenced-pasture conditions. Proper socialization (i.e. rearing dogs from puppyhood with lambs) of dogs to sheep may be the most important factor in determining the eventual success of a dog. Formal training (i.e. teaching specific commands) may not be as critical as a common-sense approach to integrating the dog into the livestock operation.

Livestock guarding dogs display a rather unique temperament, quite unlike that seen in personal protection dogs (i.e., Doberman Pinschers) or in dogs traditionally used in the management of sheep (i.e. Border Collies, Australian Shepherds, Kelpies). They are relatively independent and hesitant to respond to commands, and mature dogs are usually calm, often to the point of appearing lackadaisical. They are wary of unfamiliar intrusions into their environment and repel potential predators by chasing and sometimes barking. (Physical encounters between dog and predator are relatively uncommon.) Effective guarding dogs are attentive to the sheep and unlike many other dogs, do not harm or harass them. Most of these behavorial traits are a result of heredity and not a result of training.

Conclusion

It is doubtful that the sheep industry will find a single solution to solve the problem of predation. Even some producers who use guard dogs and consider them to be effective, continue to rely upon other methods of control including shooting, trapping, corralling sheep, or electric fencing. On the other hand, some producers report that guard dogs are the only method of control used or needed in their operation.

The solution for predation on an industry-wide or on an individual basis does not have to be based on one control method. Some have erroneously faulted the concept of using dogs because they knew of one that did not work successfully or because they knew of one that killed sheep or because they know of certain types of operations where most dogs would never work. The point to be made is that many dogs do work in many different situations, and where they are effective, their use should be encouraged.

Editor's Note: For those desiring more information we have added a list of pertinent current literature on guarding dogs. Copies of most of the articles listed may be obtained from Jeffrey Green, U.S. Sheep Experiment Station, Dubois, Idaho 83423..

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