Introducing Livestock-Guarding Dogs

J. R. Lorenz

Livestock-guarding dogs are one of a variety of tools that sheep and goat producers are finding effective for preventing livestock losses to predators. Guarding dogs are used alone or in combination with other controls to keep predators out of flocks and herds.

Producers are attracted to this system because it allows them to take charge of what happens on their farms. Dogs are a good alternative to consider where there are liabilities associated with lethal control methods.

These floppy-eared, sheep-sized, sheep-shaped dogs live with the flock day and night. Rarely will a coyote challenge the presence of a dog three times its own size.

For centuries, dogs have been the method of choice for guarding flocks from wolves, bears, and wildcats in southern Europe and Eurasia. Now, this Old World concept in predator control is being adopted by livestock growers across the United States.

In the United States, guarding dogs are used primarily with livestock that have high rates of predation—sheep and goats. Field-testing results group sheep and goats together, and examples that refer to sheep also apply to goats.

A new application is the use of dogs to guard cattle from the endangered timber wolf in northern Minnesota. The potential of this technique with cattle and other livestock appears positive.

Forming a social bond between sheep and dog is a two-way process. Here a week-old lamb investigates a resting Anatolian Shepherd. Young lambs will often show more curiosity toward a new guarding dog than older ewes will show.

Positive results in field trials

Controlled field-testing of traditional guarding breeds dates from the late 1970's. Results of several studies were impressive as sheep and goat producers rated the behavior of two-thirds of their guardians as excellent or good. High ratings translated into fewer losses.

Researchers at Hampshire College, Amherst, Massachusetts, tabulated reductions in losses from 1,157 reports

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from 1980 to 1986. For that 7-year period, 64% of dogs were at farms with reduced predation; 20% were at farms with no predation; and 16% were at farms with no change or increased predation.

Livestock growers in at least 37 states are using these dogs, and they report them to be working equally well with large flocks (1,000 or more) and small ones (100 or less). They work in range operations and within fenced pastures.

Researchers at the USDA Sheep Experiment Station reported benefits in addition to reducing predator losses. In a survey of 40 producers, 39 said their dog brought them peace of mind; 24 said they relied less on other forms of predator control; and 21 said the dog eliminated the need for night confinement.

Choosing a dog

Producers in the United States can select dogs from several Old World breeds, including Anatolian Shepherd (Turkey), Castro Laboreiro (Portugal), Great Pyrenees (Spain, France), Komondor and Kuvasz (Hungary), Maremma (Italy), Polish Tatra (Poland), Shar Planinetz (Yugoslavia), and Tibetan Mastiff (Tibet).

Good dogs can be found within any of these breeds because basic behaviors are the same among them. However, differences in temperament can be found between individuals of the same breed—and these differences are greater than those between dogs of different breeds.

When you choose a dog, it's better to ask about bloodlines than to rely on the general reputation of any particular breed. Purchasing a dog from a working line is preferred to selecting one from a show line. Some breeders advertise in trade magazines; some offer guarantees. Contact one of the programs listed under "Additional information" if you need assistance with locating breeders.

Behavior and management

A guarding dog must show three basic behaviors to be effective:

1. It must be trustworthy—it must not injure livestock or interfere with routines of feeding, breeding, and lambing.
2. It must be attentive—it must stay close to its charges.
3. It must be protective—it must bark whenever a predator shows up.

Guarding dogs are docile and inquisitive when approaching livestock. They form social attachments with sheep that are similar to those they formed with littermates.

They react to changes in routine, alternately rushing out with threatening barks and then retreating to the flock. Only rarely does a protecting dog fight with a predator.

The behavior of the well-known herding dogs varies greatly from that of guarding dogs. Herding dogs display a predatory pattern of stalking and chasing sheep. A handler moves the livestock by controlling the direction of the chase.

The two types of sheepdogs—with two different behaviors—can both be valuable assets on the same farm or ranch. They have separate jobs; you use them in different ways.

Training a guarding dog is largely a matter of raising a pup with the stock (see EC 1238). Keep in mind that you don't want to make a pet out of a dog you expect to stay out with the flock.

You can start a pup in the lambing barn, or out in a pasture with older stock. The goal of training is that dog and sheep will form a social attachment to one another.

Sometimes, this means confining dog and sheep in a pen where they can get to know one another on friendly terms. A pup that sleeps with sheep and barks at strange activity is on its way to becoming an effective guardian.

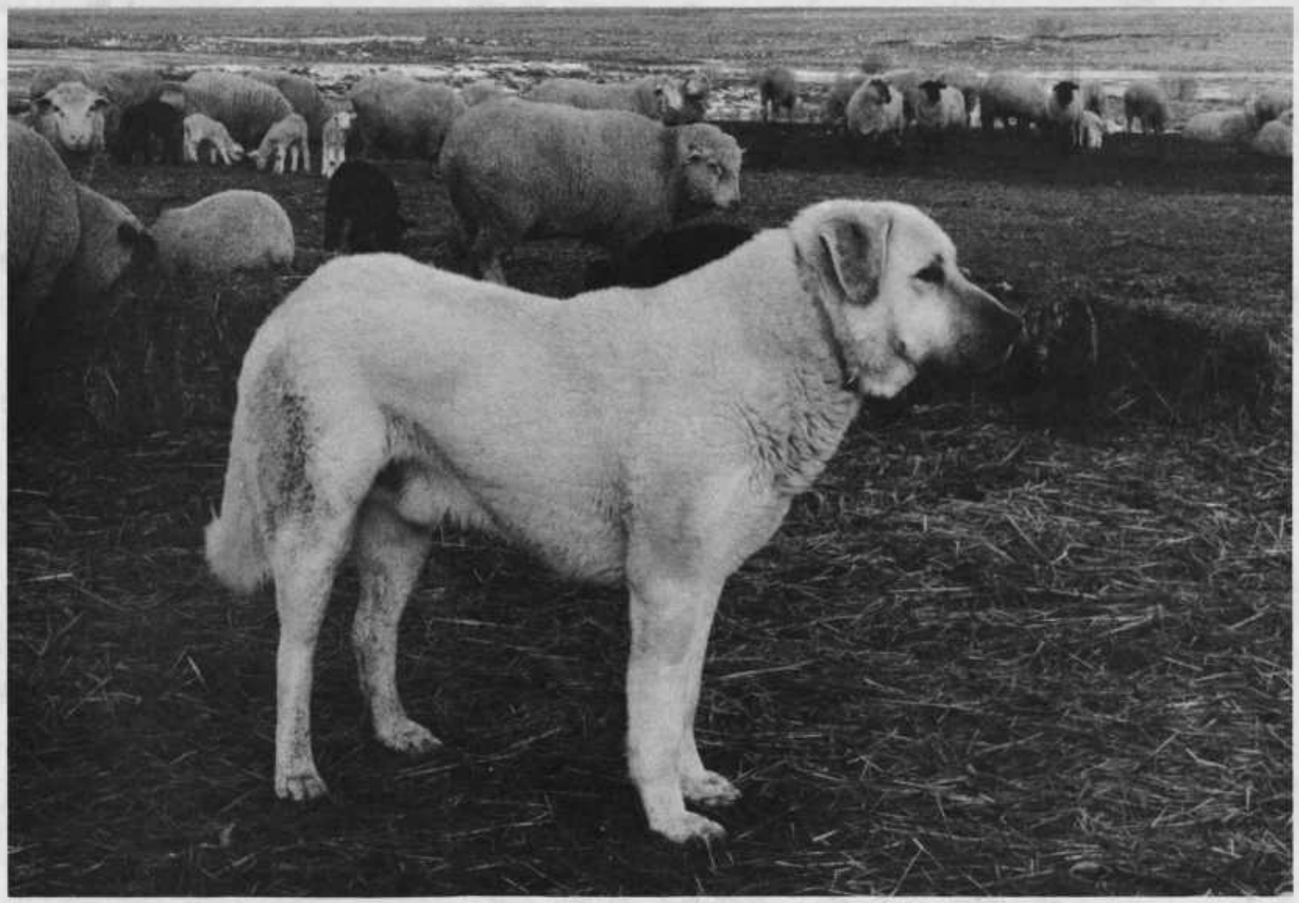
Remember this motto: "If the dog isn't with the sheep, it's not where it's supposed to be."

The number of dogs needed on a farm depends more on sheep management and severity of predation than on flock size. A single dog can be effective with a range band of 500 or more sheep that are flocked. Additional dogs may be needed in any flock where sheep are scattered or where predation is severe.

In fenced pastures, some producers use one dog per flock per pasture. Replacement needs (see "Estimating costs") are another factor to consider when you assess the number of dogs needed on your farm.

Herding dogs, like this Border Collie, stolk sheep in o crouched position. Sheep reoct by moving owoy from this predotory behovior. Shepherds control the direction of the stolking movements to guide sheep from one locotion to onother. Photo courtesy Lorno Coppinger.

Mony ronchers in the Southwest ore using guording dogs to protect their Angoro goots. Two or more dogs moy work together where predotion is severe. These Shor Ploninetz-Moremmo crosses enobled this roncher to increose the size of his flock.



An Anotolion Shepherd stonds olert with his flock of sheep. The rounded heod ond floppy eors ore chorocteristic of oll the troditionol guordion breeds. Moles weigh 90 to 110 pounds; femoles 75 to 95 pounds.

Estimating costs

The cost of a dog depends on your initial acquisition costs (purchase price and delivery), annual maintenance (food and health), and its longevity. In 1989, breeders were asking $250 to $600 for puppies and $500 or more for adults. Typical maintenance ranged between $175 and $200 a year.

You can figure your own costs by adding acquisition costs to maintenance costs; then divide that total by the number of years of useful service the dog should give you.

Dogs are expected to begin working at about 1 year of age; so years of useful service generally equals actual age minus 1. Figure your cost this way:

1. Add your purchase cost, your puppy year costs, and the total adult cost.
2. Divide this total by the number of years of useful service.

From this formula, you can see the annual cost will decrease with each additional year of ownership. Barring accident or illness, you can expect a lifespan of 10-12 years. However, untimely deaths take their toll during the early years, primarily because of accidents.

Through age 2.5, 2 of every 10 dogs on the range, and 1 of every 10 used away from the range, die each year. After age 2.5, 1 of every 20 dogs dies each year. About 25% of dogs can be expected to live a full lifespan.

Given the high rate of mortality, especially among young dogs, and the fact that guarding dogs take 1.5 to 2 years to mature, it's a good idea to plan for a replacement before it's needed.

Starting a replacement pup when your first dog reaches 3 or 4 years of age will help ensure the availability of a working dog at all times. Good management is critical for ensuring a long life for your flock guardian.

Additional information

Many articles on the breeds, behavior, and management of livestock-guarding dogs have appeared in trade and technical journals. Hampshire College supplies additional literature, maintains a registry of working dogs, and offers assistance in locating dogs. Small fees may be charged for some services.

Staff members of the USDA Animal Damage Control Program offer assistance with guarding dogs in Oregon and several other Western

States as part of their predator-control responsibilities.

In addition, many breed clubs offer educational assistance.

For educational materials and information on how to contact breeders or breed clubs, write or phone one of the following:

Extension Wildlife Specialist
Dept. of Fisheries and Wildlife
Nash Hall 104
Oregon State University
Corvallis, OR 97331-3803
phone (503) 737-4531

Guarding Dog Project
USDA/APHIS/ADC
Sheep Experiment Station
Dubois, ID 83423
phone (208) 374-5506

Livestock Guarding Dog Project
Hamshire College
Box FC
Amherst, MA 02001
phone (413) 253-7065

For further reading

OSU publications. This publication is available from Publications Orders, Agricultural Communications, Oregon State University, Administrative Services Bldg. 422, Corvallis, OR 97331-2119. Please add 25¢ shipping and handling for orders up to $2.50. For orders between $2.50 and $100, add 15% shipping and handling. For orders of $100 or more, please call (503) 737-2513 for a price quote.

Lorenz, Jay R., and Lorna Coppinger, *Raising and Training a Livestock-Guarding Dog,* Oregon State University Extension Circular 1238 (Corvallis, revised 1989). 75¢

Other publications

Coppinger, L., and R. Coppinger, "Livestock-guarding dogs that wear sheep's clothing," *Smithsonian,* April 1982, pp. 64-73.

Coppinger, R., L. Coppinger, G. Langeloh, L. Gettler, and J. Lorenz, "A decade of use of livestock-guarding dogs," in *Proceedings 13th Vertebrate Pest Conference, Monterey, CA,* 1988, pp. 209-214.

Green, J., R. Woodruff, and T. Tueller, "Livestock-guarding dogs for predator control: Costs, benefits, and practicality," *Wildlife Society Bulletin* 1984 (12:44-50).

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