



LIVING IN WOLF COUNTRY

A classic wolf howl, answered by innumerable squabbling puppy voices in the tamarack bog, signaled the arrival of our first wolves in 1991. I contemplated the news with mixed emotions. Awed though I was to have just witnessed a wolf pack rendezvous, I was uneasy. It was too close to home for comfort. We live in east-central Minnesota, an area once thought to be uninhabitable by wolves because of the high density of people, farms and roads.

My farm consists of many small (10- to 40-acre) pastures interspersed by swamps, woodlands and neighboring farms. Most of the land is leased from neighbors desiring to maintain a green firebreak around their homesteads, or is not suitable for cropping. While not productive under the plow, most of this land produces outstanding clover pastures. I make my living harvesting this clover with grazing animals. Our flock consists of 200 to 300 breeding sheep and 10 to 30 beef cows. Typical

Text and photos by
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of a large portion of the Great Lakes region, much of our grazing land interfaces intimately with wildlife habitat. This benefits some wildlife species, but conflicts can arise with predators.

Throughout the 1980s we successfully prevented depredation from coyotes, dogs, foxes and bears by using one or two livestock guarding dogs. Livestock guarding dogs are specially bred dogs that have been used in the mountainous parts of Europe and Central Asia for nearly as long as man has tended sheep. When properly reared, these unique dogs develop social bonds with the livestock they are bred to protect. The dogs display aggressive behavior that keeps the intruder out of the flock, or they gather the sheep together and move them away from danger. If more than one dog is available, both strategies may be used. All guarding dog breeds are large (90 to 150 pounds), and many have a distinctive heavy white coat. Most people are familiar with the Great Pyrenees from France and Spain, but there are many other breeds. An outstanding feature of

these dogs is their willingness to stay with and protect the livestock they are raised with.

My previous success with deterring coyotes left me somewhat confident that we could handle wolves. But I was naive. My learning curve commenced quickly, however, and I soon discovered the wolf is not a large coyote. As of today, my predator losses total 93 sheep, a loss of over \$12,000, despite having invested in several experienced guard dogs and electric fencing. Of the 93 sheep, very few were ever found. There simply was nothing to find. Most were young lambs. Unlike coyotes and foxes, a wolf eats everything, leaving only “crumbs” scarcely bigger than a pinkie fingernail, when it eats a small lamb.

Because I had no carcass as evidence, I was not eligible for compensation through the Minnesota Department of Agriculture (MDA) program designed to compensate producers for wolf-killed livestock. To receive compensation, producers must present carcass remains to

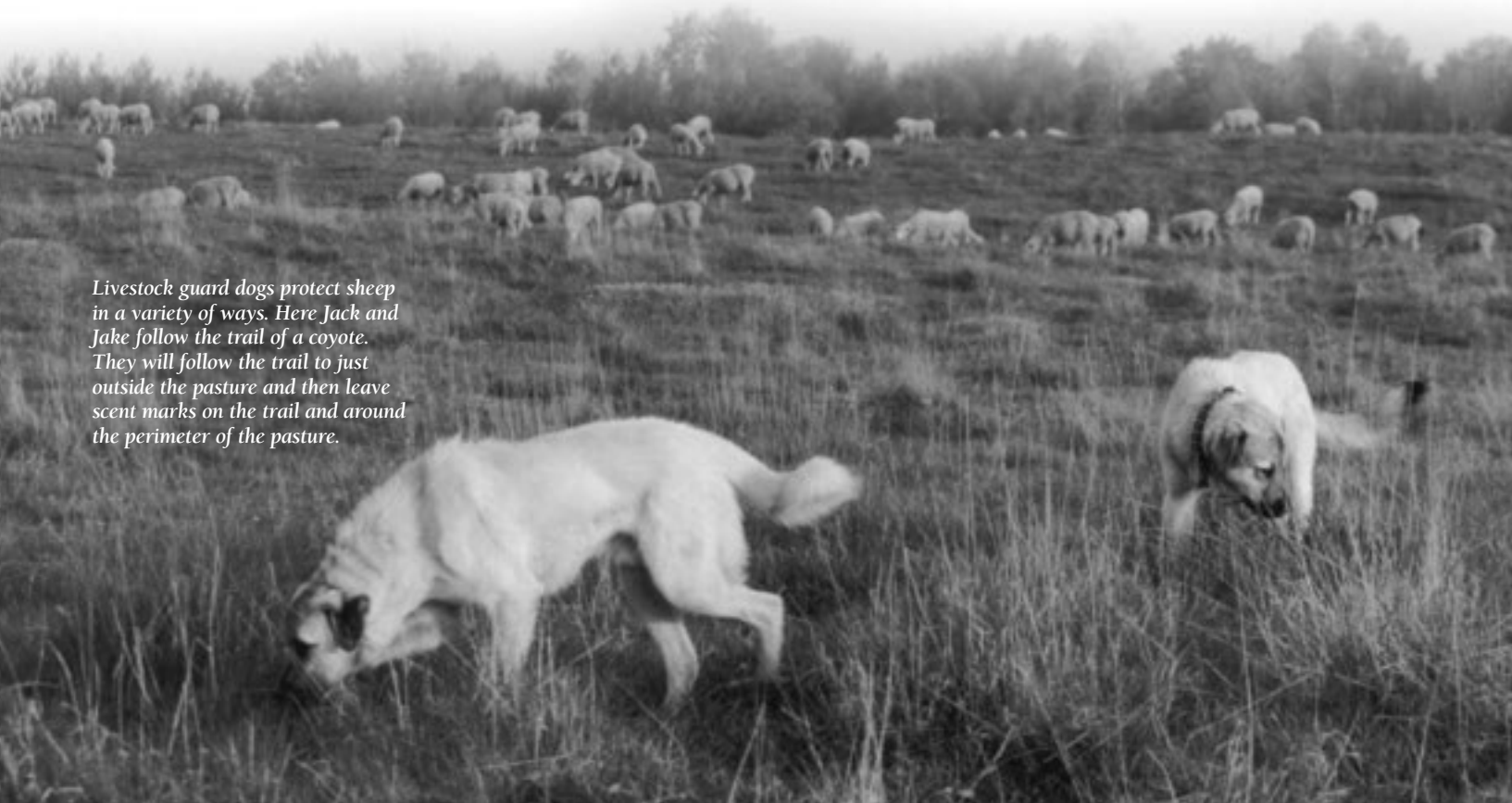
experts to determine the cause of death. Without physical evidence, the producer cannot prove anything. I am not alone. Surveys of sheep producers suggest that only 1 in 10 sheep killed by wolves is found. With no proof and no compensation, most producers see only one solution: to exit the business before they lose everything. Close to 60 percent of the sheep producers in parts of northern Minnesota’s wolf zone have left the sheep business during a decade of rapid wolf expansion. This is double the average attrition of 30 percent outside the wolf zone for the same period.

As my encounters with wolves increased, I added more electrified fencing and guard dogs. In 1999, with most of the sheep inside a high-tensile, five-strand electrified fence touted at the time as predator-proof, four adult guard dogs and floodlights in four of the pastures, I experienced the greatest losses yet. The timing was bad. Just months before lambing began, a wolf pack moved into the

neighborhood. The wolves displaced the local coyote population. Our farm was essentially wedged between a population of wolves and coyotes. Our losses to both wolves and coyotes totaled 75 newborn lambs in just a few weeks. Our dogs were simply overwhelmed and overworked, and despite our best efforts, our fences proved to be ineffective at deterring the predators.

Fencing is problematic. Even a fortress of a fence can be heaved up by frost, drifted over by snow, or dug under by a wolf. With over eight miles of fence, much of it along rough land, wolf-proof fencing proved unaffordable and physically unmanageable for a commercial-sized livestock operation such as ours.

The frightened and plaintive barks of the dogs led me to another discovery. The dogs need backup. While dogs find it sporting to chase coyotes with confidence, the same dogs behave differently with wolves. When alone in the presence of wolves, the dogs seek refuge in the



Livestock guard dogs protect sheep in a variety of ways. Here Jack and Jake follow the trail of a coyote. They will follow the trail to just outside the pasture and then leave scent marks on the trail and around the perimeter of the pasture.

flock or sometimes abandon the sheep and seek out another guard dog for security. Perhaps the dogs even need to outnumber the wolf pack to be truly effective. I have noted that in parts of Europe, where sheep have existed in mountainous regions inhabited by wolves for thousands of years, some flocks are guarded by as many as eight or more dogs. It is also more common in Europe for guard dogs to be unneutered. If using more dogs is the key, U.S. sheep producers need to hear the word, as it has been customary to run just one dog with a flock to prevent depredation from coyotes and domestic dogs. A dog

sector). Unable to penetrate the now fortified dog pack, the wolves moved on just before lambing began.

Rotational grazing is perhaps the best substitute for tending a flock with a herder, as the herder's primary job is to keep the sheep together and to move them to fresh grass. With rotational grazing, the fencing and sheep are moved frequently. Instead of allowing livestock access to the entire farm at once, they are given just a small fresh portion each day. The relatively small pasture size used with rotational grazing keeps the sheep within the protective custody of the dogs. Rotational grazing also benefits soil and water in addition to helping guard dogs protect their charges.

Wolves seem to be fascinated by sheep and will persistently check back every night, sometimes hanging out for hours. If the sheep are heavily guarded, after a number of visits, the wolves leave for an extended time, maybe for several months.

Since we have increased our dog numbers, the last few wolf visits have lasted only a few days.

Perhaps being outnumbered by guard dogs is the key to convincing wolves to leave sheep alone, or perhaps using unneutered dogs somehow sends a stronger message to a wolf pack. But I am still cautious about depending on dogs as the sole tool in the box. One reason is that wolf populations can quickly fluctuate. One year a producer may have just a pair of wolves; the next year he may be facing 10. Since dogs

can be trained only 1 or 2 at a time, it may take years to go from owning 3 dogs to 10 dogs. With no reserve of trained dogs available in the United States, it is impossible to respond quickly to a sudden increase in the predator population such as might happen when a pack colonizes new territory. Some method of crisis intervention is needed to protect farms when they are caught unprepared with a sudden change in the predator population.

My biggest worry is the most vulnerable point in the year: lambing. While rotational grazing with a pack of dogs has been an effective strategy after lambing is complete, it is not a suitable strategy during lambing. Baby lambs will not travel very far from their birth spot and become lost when moved. Recommended solutions to depredation include lambing indoors and sheepherders. The cost of these methods must be pitted against the harsh economic realities of the sheep business in a global market, which often leaves little room for environmental concerns. Lambing indoors means added costs—feed, bedding, labor and manure removal—often totaling \$16 extra per ewe. A sheepherder costs \$28 per ewe for a season for 200 ewes, while six guard dogs cost \$11 per ewe. A depredation rate of 12 percent will cost the producer \$15 per ewe. With the net returns per ewe often only \$15 to \$25, guard dogs provide the most affordable, the most flexible and the most effective method, although they are not always a foolproof solution.

Will guard dogs solve the wolf-livestock conflict? For producers who are committed to making it work, they provide a viable option that can minimize depredation. While no solution is 100 percent wolf-proof, dogs can prevent losses from becoming devastating. Sheep producers who use livestock guard dogs seem to be



Current wolf range in the northern Great Lakes region.

alone is in serious jeopardy when confronted by wolves, and most guard dogs are smart enough to know that.

In 2001, wolves returned. This time, a pack of three took up residence nearby and came to check out the sheep every night for a month. A repeat of the 1999 fiasco seemed probable. But by this time, I had six dogs, and lambing had not begun. I was able to place all of the dogs and sheep together into one group, moving them frequently (known as rotational grazing in the farming



Left: Fencing out predators has its downsides. The fence shown here was installed by a professional three years ago with the bottom wire 6 inches off the ground, and posts driven 6 feet deep. The forces of freezing and thawing have pushed it out far enough to permit a wolf to easily enter the pasture.



Above: This electrified netting will baffle predators for a while, but as Jack demonstrates, can easily be jumped. Fencing alone is not sufficient to deter wolves.



Livestock guard dogs have been selected and trained for centuries to protect livestock from wolves.

less fearful and more tolerant of predators. But for guard dogs to provide the kind of resolution people are looking for, a great deal of knowledge and support needs to be made available to farmers and ranchers

who find themselves listening to a new chorus in the tamaracks. ■

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