

Livestock Guardian Dogs That Work: Practical Tips Backed by Producers and Science

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Introduction

For many sheep producers, livestock guard dogs (LGD) are indispensable partners in predator protection. Although every operation is different and there is no “one-size fits all” for LGD management, there is one common thread: many sheep producers would not be in production without the 24/7 safeguard of LGD. South Dakota producers have reported as little as 0 predation loss since the implementation of LGD, which is significant as over 91,000 lambs and 31,000 ewes were reported killed by coyotes alone across the US in 2019 (USDA NAHMS, 2020). Although most associated with sheep, LGD also serve as effective tools for protecting cattle. This factsheet combines real-life advice from South Dakota producers as well as peer-reviewed science to provide a few key tips for making LGD work for an operation.

1. Provide a home on the range

The greatest success with getting LGD to remain with livestock is ensuring that they feel at home on your property. Feeding LGD near the animals is particularly important. Feeding stations look differently on every operation. Some use a self-feeding system that allows bulk feeding. There are many effective self-feeding systems, such as a modified doghouse, kennel, or small covered stock trailer with an entry gate that only the LGD can access. Others prefer hand-feeding their LGD more regularly to maintain human exposure and reduce dog food consumption by unwanted animals (i.e., skunks, raccoons, livestock, etc.). More costly options include timed or RFID feeders. Feeding dogs close to the sheep and away from the home or stock dogs can reduce wandering. Although it is important to remember that

LGD natural instinct to patrol can lead them to travel an average of 0.10 mile (approximately 180 yards) or more from the flock (Mosley et al., 2020).



2. Strength in numbers

Asking a single LGD to guard livestock with the potential of more than one predator threat is a lot to expect. Unanimously, recommendations are to never have only one LGD with a flock or a single group of sheep. Other considerations included not having two puppies at the same time. It's natural for young dogs to play, but many producers have noticed that two puppies usually means playing too aggressively with the sheep as well. Consider getting older puppies (>8 weeks of age) or young dogs (1-2 years old), only introducing one into a flock at a time. Until 2 years of age, young LGD may not be as effective as adults.



3. Different breeds, different behaviors

Each breed exhibits different characteristics, so finding the breed that works best on an operation is key. Across the US, Great Pyrenees, Akbash, Anatolian Shepherd, Merema, and Komodor have been the most used guardian breeds. However, with increased pressure from larger predators, there has been greater utilization of European and Asian breeds, including the Kangal and Karakachan. Research conducted across the northwestern US found little behavioral difference between Kangal, Karakachan, and traditional “white dogs” (Kinka and Young, 2018). When talking with producers, many developed a preference and encouraged observing which dogs stay with the sheep and which ones travel to patrol the area. In Northwestern SD, the most used breeds (often crossbreeds) are Akbash, Anatolian, Great Pyrenees, and Kangal. On the ranch and in research, there is a mixed preference for male or female LGD.

4. Making the best introductions

Bonding LGD with livestock is the first step in successful guardianship. Bonding best begins when puppies are 8 weeks old (Constanzo B., 2022). Some producers prefer older puppies, especially when older dogs have already established a “pecking” order, so making sure that an older puppy is exposed to sheep in an environment similar to your operation will ensure a smoother introduction. A common recommendation among producers is to use an old stock trailer with food and water to introduce new dogs into a flock. In some cases, the dogs are confined to the trailer with a couple of sheep for a few days, or the trailer has been modified to allow the dogs to come and go. Introducing LGD during lambing or calving season allows handlers to monitor behavior closely; gradual acclimation and consistent

interaction help build trust and ensure effective guardian performance. Careful attention should be paid to how puppies interact with young livestock and to protective mothers who may scare young LGD from the livestock. Teaching puppies general commands such as “No” or “Go to the sheep” can also be helpful (Urbigkit, 2019).



5. Bygone practice of zero contact

The adage about never touching a guard dog is less widely followed than in the past. Introduce your LGD gradually to a consistent caregiver so the dog trusts that person, allowing routine care and prompt treatment if the dog becomes injured or requires medical attention. Some producers conduct daily feedings so that the guard dogs are more comfortable with human presence and positively associate them with food. It also allows owners to provide oral medication when needed. Others initiate bonding close to the house or barn to familiarize puppies with a “home base” where they will regularly be in contact with their owners and working dogs used on the operation.

6. Managing LGD means managing neighbor relationships

Guard dogs are often not confined to the perimeter of a single property. In some cases, LGD need to cross fences to get to another group of sheep or ensure that a predator is no longer a threat. Now, that doesn't mean LGD should roam as they please, but it does mean making sure neighboring operations are aware that they may see LGD. Ensure prompt, open communication and agreement on how to handle LGD on neighboring property. Keep in mind that not all neighbors are open to LGD, so compromise and flexibility should be at the forefront of conversations. If running livestock on or near public land, try keeping the animals 400 m (about ¼ mile) away from recreational sites or residences to

reduce human/LGD interactions (Mosley et al., 2020). The American Sheep Industry has printable signs to post stating that LGD

Final Thoughts

The leading piece of advice from SD guard dog owners was to quickly remove any LDG that fails to protect your operation properly, but do not give up on LGD altogether. One unsuccessful LGD does not prove all LGD ineffective. Evaluate causes, try alternative training or breeds, and consider replacement before rejecting livestock guardian dogs as a management tool. Protecting livestock with a livestock guardian dog turns lamb or calf losses into long-term savings; each saved animal quickly justifies the LGD investment.

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