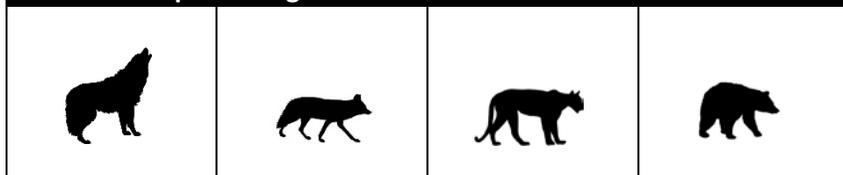


# Livestock Guardian Dogs



## Effective for protecting livestock from:



## Overview

Livestock guardian dogs (LGDs) have been used to protect livestock from predators for thousands of years. LGD breeds were developed through selective breeding in Europe and Asia to protect livestock from bears and wolves (Andelt 2004). Some evidence suggests LGDs disrupt predatory behavior rather than displace predators, while other research indicates that LGDs may push predators to other territories. Compared with other nonlethal tools, LGDs seem to be the most effective across all operation sizes (Gehring et al. 2010). Research in Australia indicates that LGDs can reduce predation across all production scales and livestock types (primarily cattle and sheep) (VanBommel and Johnson 2002).

## Acquiring an LGD

Working-age LGDs (two-year old and up) are available from a number of breeders; however, many livestock producers prefer to purchase puppies. While a pup cannot be expected to successfully guard livestock until it reaches maturity, starting with a pup allows a producer to bond the dog specifically to his/her livestock and operational environment (see below). Regardless of the source of a dog, producers should observe the home environment of the prospective LGD. Furthermore, producers should try to observe a pup's parents to ensure that the pup comes from working (rather than pet) genetic lines. Finally, producers should utilize the natural genetic and behavioral variations in these dogs to match conditions. For example, more athletic and aggressive dogs may be more appropriate where the predators are similarly athletic and aggressive (e.g., wolves).

## Training the LGD Pup

LGD pups that are intended to protect livestock in a commercial (as opposed to homestead) environment should be bonded with the livestock they will spend their lives protecting. Dogs undergo rapid brain and neurological development between 8 and 16 weeks of age, during which time social bonds are formed. Bonding a pup with livestock during this period will help ensure that the adult dog will be more likely to stay with livestock. Pups should be kept with mature livestock that will not put up with chasing or other play behaviors. Mature, dry ewes or does work well for training LGD pups. Play behaviors such as chasing or chewing on livestock should be strongly discouraged through timely correction as the behaviors are occurring. Keep in mind that not every LGD, whether acquired as a pup or as a mature dog, will succeed as a livestock guardian dog (see Common Problems below) or fit a specific ranch situation.

**Costs**

The costs of using LGDs can be divided into three categories: acquisition, development, and maintenance. Acquisition costs include the cost of purchasing a puppy or working age dog (including the transportation cost). In the case of a pup, producers may invest a significant amount in rearing the LGD (primarily including veterinary costs and dog food). These acquisition and development costs may be lost if the mature LGD is not suitable for a specific operation.

Sample Acquisition and Development Costs	
8-10 week old pup	\$400
Transportation and time	\$200
1.5 yrs dog food/vet costs	\$450
Success Rate (67% of dogs will work)	÷67%
Total Investment (Working LGD)	\$1,567

Annual Operating Costs	
Dog food	\$200
Vet costs (maintenance)	\$100
Depreciation	\$300
Total Annual Cost/Dog	\$600

**Common Problems with LGDs**

Most problems with LGDs fall into two categories: a failure to stay with livestock, and mistreatment of the livestock the LGDs are supposed to protect. Some dogs fail to stay with livestock because they desire to roam a larger territory, or they don't respect boundary or interior fences. Other LGDs that are over-socialized with humans would rather be with people than with livestock. A dog with a large territory can be useful; a dog that prefers to stay on the front porch will not prevent livestock depredation. Dogs that are rough on livestock as pups will sometimes outgrow this behavior as adults; however, rough treatment of livestock cannot be tolerated. If a pup does not outgrow this behavior, it should be re-homed to a non-guarding situation. Some female LGDs will steal lambs or kids during their first experience with this stage of production. This behavior can usually be corrected.

Other potential problems can include fighting between dogs (or with herding dogs), liability issues associated with biting, harassment of non-predator wildlife, and public misunderstanding about the role of an LGD in a production setting. Food & Fiber Risk Managers offers working dog liability insurance (see [www.dogfafrn.com](http://www.dogfafrn.com) for more information).

**Final Thoughts**

Using LGDs successfully is dependent on using dogs with the right genetic potential, rearing, and environment. Using the right dog(s) in the right situation is critical, as is a producer's ability to adapt to changing conditions. As with any tool, however, the success of using LGDs is dependent on operation-specific conditions.

**Further Reading**

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VanBommel, L., and C. Johnson. 2012. Good dog! Using livestock guardian dogs to protect livestock from predators in Australia's extensive grazing systems. Wildlife Research 39:220-229.

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