



Big Dogs, Hot Fences and Fast Sheep

A Rancher's Perspective on Predator Protection

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Overview

- Background on our Operation
- Types of Predators in our Environment
- An Integrated Approach to Predator Protection
- What do our customers want?
- What about wolves?
- Additional Resources



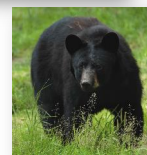
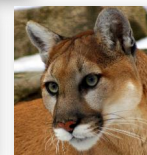
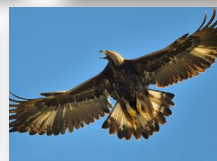
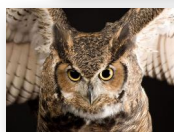
Flying Mule Farm



- Small-scale commercial sheep operation in Sierra foothills
- Operate entirely on leased land and on contracted vegetation management projects
- Largely in semi-rural environments
- Market lambs and wool direct-to-consumer and through commodity channels
- We employ non-lethal predator protection methods

What are the main predators in our environment, in order of significance?

- Domestic Dogs
- Coyotes
- Mountain Lions
- Black Bears
- Birds (Eagles, Great Horned Owls and Crows/Ravens)
- Humans
- Wolves?!



An Integrated Approach



- Understanding the environment – what are the likely threats?
- Are there any constraints on the type(s) of predator protection you can use?
- Are you operating in open range, permanently-fenced pastures or electric fence?
- Are you likely to be fencing predators IN your paddocks?

An Integrated Approach (continued)

- How does your production cycle match up with the life cycle of predators?
- FAST SHEEP - Selecting for vigor and for females that will protect their young
- Understanding signs of predation
- HOT FENCES - electric fences are our first line of defense!
- Are most of the predators likely to be canines (coyotes and dogs)? If so, a llama (or 2) may be an option.
 - My theories on llamas!



BIG DOGS: Livestock Guardian Dogs – Our Mainstays

- We rely on livestock guardian dogs (LGDs) more than any other predator protection tool!
- We try to incorporate LGDs into our system as if they were the alpha canine predator in the environment.
 - Behaviors include marking territory and protecting their “pack” (the sheep).
 - Have never observed fighting with predators.
 - Our dogs come to “understanding” with local predators – which is why I prefer not to remove predators that understand our system!



Our LGDs

- We typically use 1-2 dogs per flock.
- We’ve been able to succeed with fewer dogs because of our grazing management (small paddocks, electric fence and rapid movement).
- If we started experiencing predation, we’d increase the number of dogs.
- My experience at McCormack Ranch...
- Dr. An Peischel’s experience with goats on timberland...
- Observations of open range operations...
- Other shepherds’ experiences with wolves and brown bears in the US and Europe...



Rosie, a 3-year-old Akbash x Anatolian



Reno, a 5-year-old Anatolian

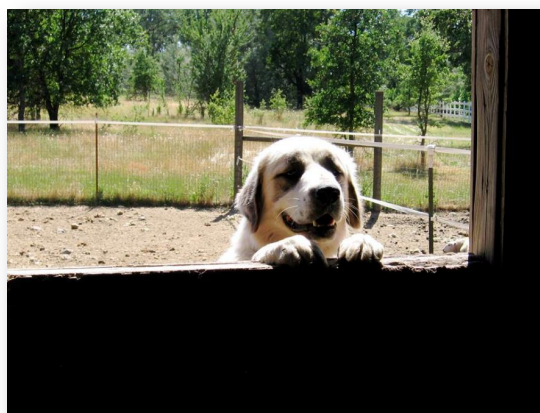
Socializing LGDs and LGD behavior

- Puppies should be reared in close proximity the type of stock you want them to protect
- Dogs that will be working around your home place should be socialized differently than dogs that need to stay with livestock in more remote areas (more human interaction)
- Puppies should be reared with mature ewes, bucks or does – livestock that won't take any guff but that won't hurt the puppies, either
- Each dog has a different personality and normal behaviors
- Puppies (and working adult dogs) should never be corrected for exhibiting guarding behaviors (including barking)



Costs

- Purchasing a dog (puppy vs. adult dog)
 - \$350 - \$1500 (depending on breed, age, etc.)
- Feeding – I figure about \$1 per dog per day
- Vet Care - \$150-200 per year
- Total cost - \$550-600 per year
- Our dog cost is \$8/ewe/year



More on Wolves...



- Wolves have killed LGDs in Wyoming and elsewhere
- Research in Europe may be helpful in developing strategies here
- Preventing wolf predation requires greater number of LGDs, possibly with protective collars, as well as other measures
- Wolves will make predator protection more costly!

LGD Breeds and Wolves

Common Breeds

- Great Pyrenees
- Akbash
- Anatolian
- Maremma
- Kuvasz

Emerging Breeds

- Spanish Mastiff
- Pyrenean Mastiff
- Kangal
- Karakachan
- Cão de Gado Transmontano

Bigger, more aggressive predators will likely require bigger, more aggressive dogs. Given the proximity of some grazing land to suburban and recreation areas, these dogs may not be an option for some producers (including us).

What do our customers want?



- As direct marketers, our practices are open for all (including our customers) to see!
- Customers like the idea of “predator friendly,” but they also want us to care for our animals (in other words, they don’t like predation, either).
- Value-added and direct marketing are not necessarily the answer for small-scale commercial production.
- What are the options for adding value from our approach to predator protection without direct marketing?

Economics

- Larger and more aggressive predators will require additional preventative measures
 - Additional – and more aggressive - dogs
 - Additional herding
 - Additional fencing
 - Other measures
 - Stress-related production losses
- All of these measures have additional costs associated with them!
- Most of us can’t pass these costs along to the consumer.
- Cumulative impacts of other regulatory programs
- Already thin margins
- We view our non-lethal methods as a compact with the predators – I don’t kill them, but they shouldn’t kill my sheep either!
- Example – 150 ewes
 - 4 additional dogs will cost \$32 more per ewe per year
 - Additional labor for moving sheep more frequently
 - Additional insurance costs associated with keeping more and more aggressive livestock guardian dogs
 - At a 150% lamb crop, each ewe in our system generates about \$150 in gross income (in the form of weaned lambs) per year
 - Our flock has been developed over 10 years to fit our management system and forage resources – we can’t simply go out and buy more sheep that fit our operation.



USDA Wildlife Services is researching the efficacy of new breeds – placing imported dogs with producers who are coping with wolves. Wildlife Services is also researching other non-lethal techniques.

More research is needed on dog behavior and dog-human interactions.

Additional Resources

- USDA Livestock Guarding Dogs publication (<http://www.nal.usda.gov/awic/companimals/guarddogs/guarddogs.htm>)
- OSU Cooperative Extension – Raising and Training a Livestock-guarding Dog (<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/18914/ec1238.pdf>)
- Guardian Dog Research in the US (<http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1282&context=gpwdcwp>)
- Carnivore Damage Prevention (<http://ucanr.edu/sites/placernevadasmallfarms/files/198355.pdf>)
- From my Foothill Agrarian blog (www.flyingmule.blogspot.com)
 - “Using Livestock Guardian Dogs in a Small-Scale Commercial Sheep Operation”
 - “Some Observations on Guard Dog Behavior”
 - “Dogs, Neighbors and Farming Close to Town”