Big Dogs, Hot Fences and Fast Sheep

A Rancher's Perspective on Predator Protection

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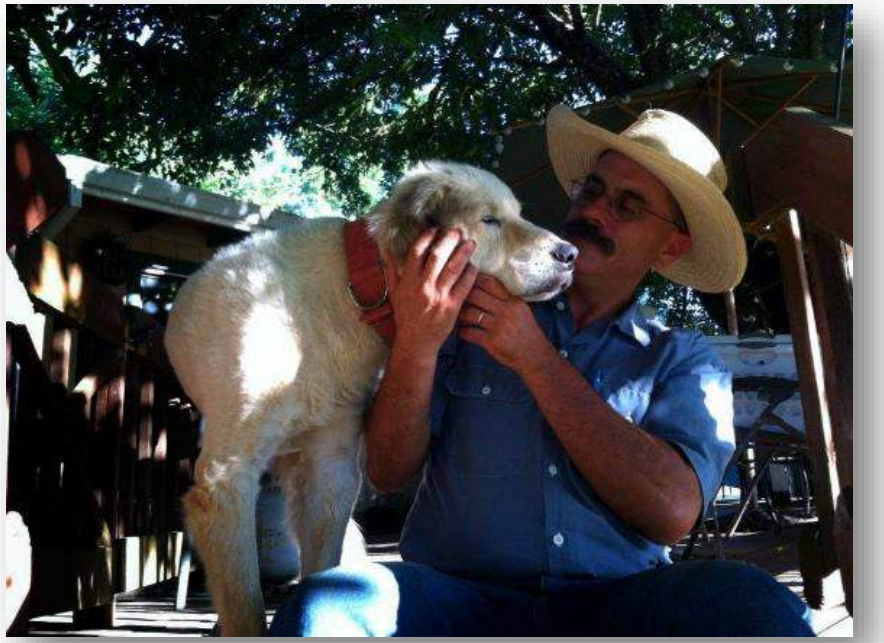
Overview

- Why should we consider non-lethal tools, and why aren't they used more?
- Background on our Operation
- An Integrated Approach to Predator Protection
- What do our customers want?
- Additional Resources
- UC Rangelands / UCCE Wolf-Livestock Research

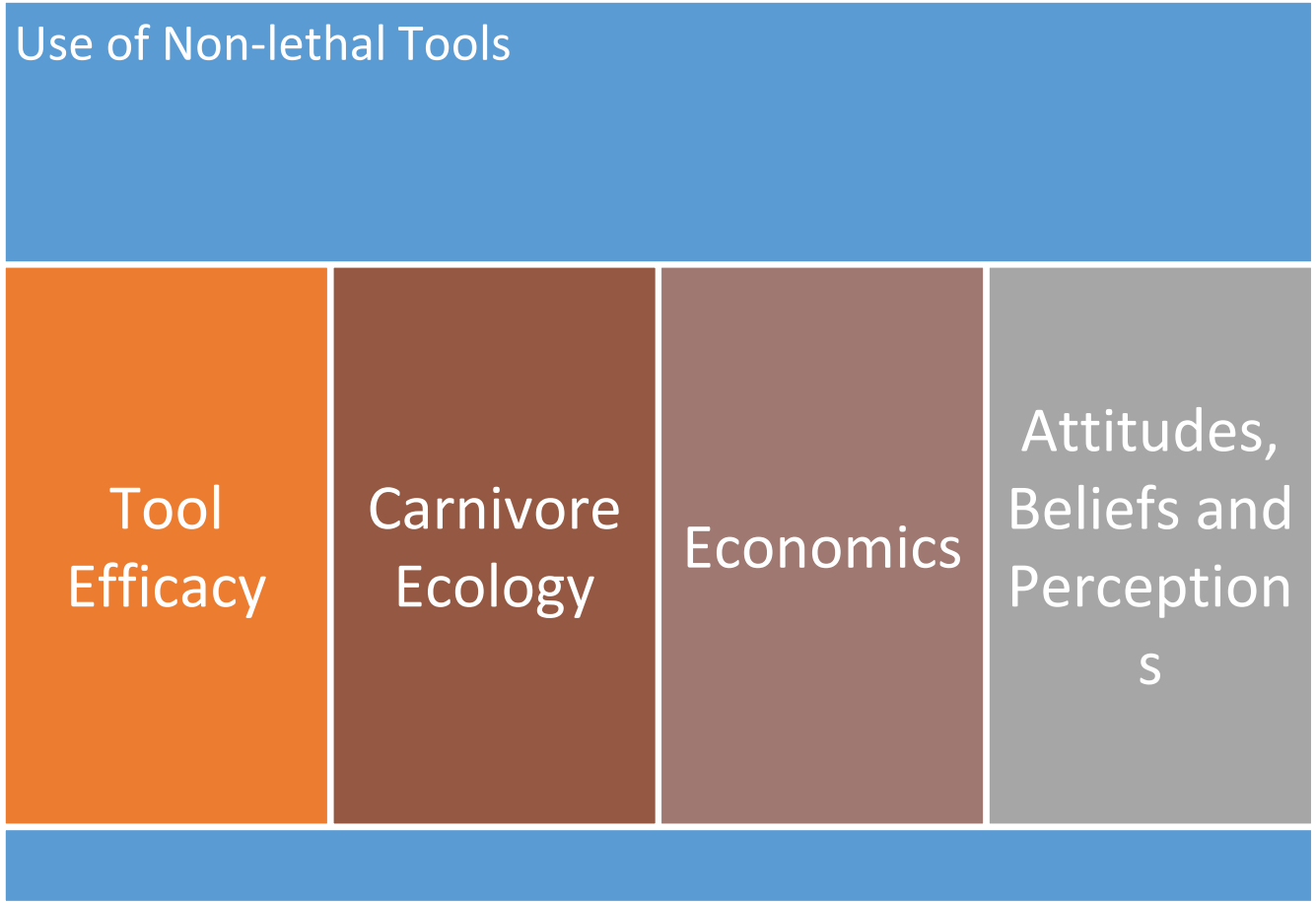


Why should we consider non-lethal tools?

- Socio-political and marketing benefits
  - Public perceptions about predators have changed
  - Opportunities to market “predator friendly”
- Biological reasons
  - Evidence that lethal control can cause increased predation by disrupting social structure with in predator populations

Why aren't non-lethal tools used more?

These tools are like any other approach to raising livestock. If you believe they'll work, you'll find a way to make them work. If you don't believe they work, they'll seem like a lot of extra work (and ultimately, they won't work – no matter what I tell you!)



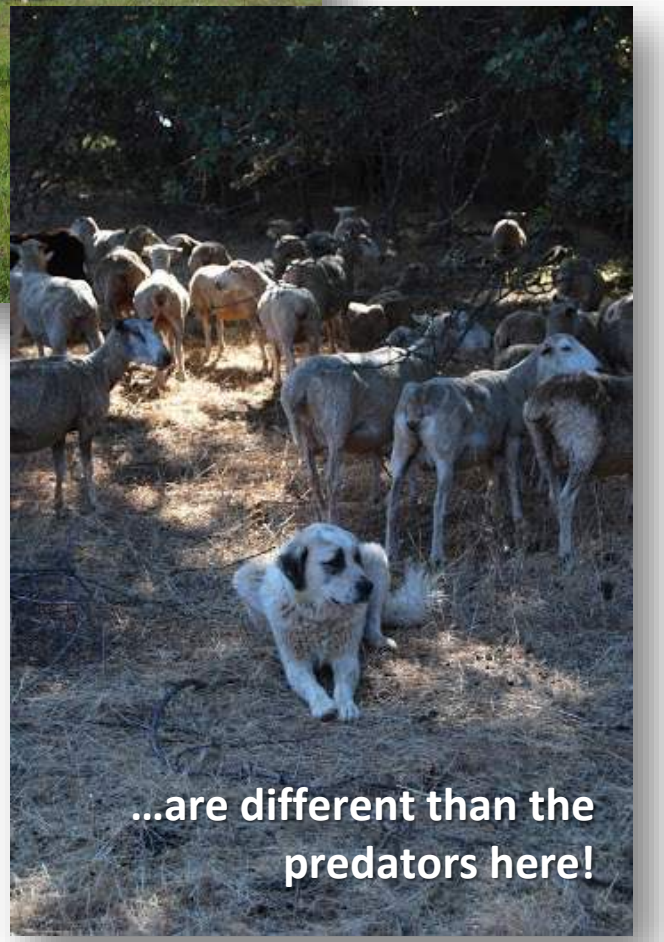
Source: Eric Gese, NWRC USDA-APHIS

Flying Mule Farm

- Small-scale commercial sheep operation in Sierra foothills (pre-drought: 300 ewes)
- Have managed large-scale targeted grazing operations (4000+ sheep and goats)
- Previously herdsman for Sierra Foothill Research and Extension Center – Yuba County
  - 150+ mother cows, 300 heifers and 400 yearlings
- Operate entirely on leased land and on contracted vegetation management projects
- Largely in semi-rural environments with no permanent fencing
- Market lambs, mutton and wool direct-to-consumer and through commodity channels
- We employ non-lethal predator protection methods
  - In 12 years, we've lost a fewer than 10 sheep to predators (coyotes, dogs and mountain lions)
  - We've lost as many ewes to rattlesnakes (1) as we have to mountain lions
  - To date, we have not had to use any lethal means of predator protection
  - Key predators (in order of importance): domestic dogs, coyotes, mountain lions, and birds of prey. We expect one day to have wolves in our area.

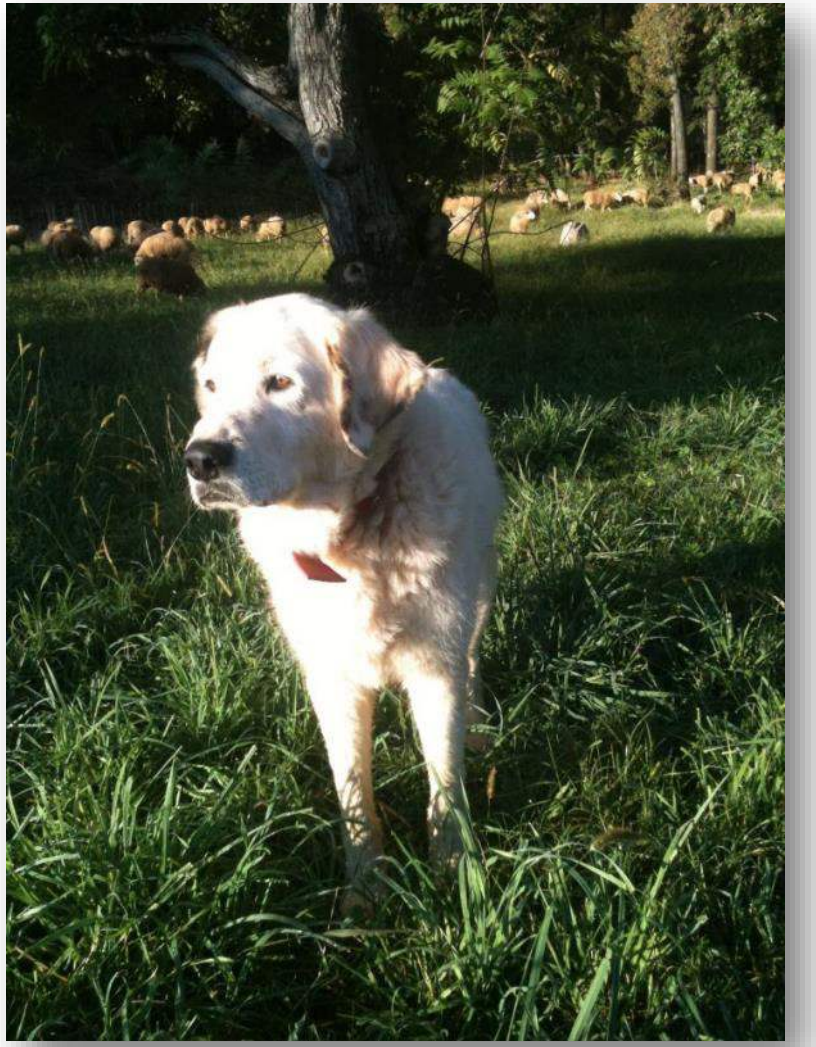
An Integrated Approach

- How does your production cycle match up with the life cycle of predators?
  - Is there alternative prey available?
- "FAST SHEEP" - Selecting for vigor and for females that will protect their young
  - Docility may be detrimental to maternal ability
  - Doesn't mean we want sheep that run away!
- Understanding signs of predation – get to know your trapper
- 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!
  - Our experiences
  - Other producers' experiences
  - APHIS Research



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) – our dogs are basically "predators" that won't eat our sheep!
  - Have never observed our dogs fighting with predators.
  - Our dogs come to an "understanding" with local predators – which is why I prefer not to remove predators that understand our system!
- Typically use 1-2 dogs per flock – would need more dogs if predator pressure increased.



Socializing LGDs and LGD behavior

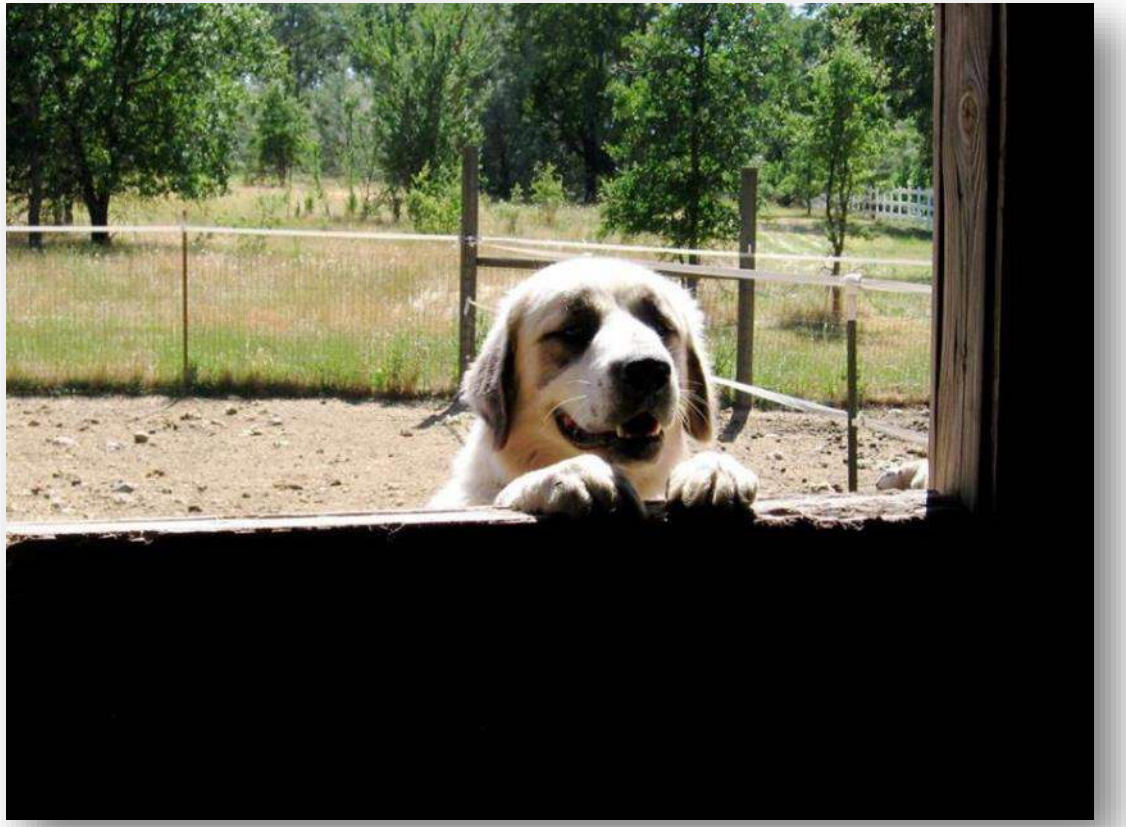
- Puppies should be reared in close proximity the type of stock you want them to protect
- Dogs that will be working around your home place should be socialized differently than dogs that need to stay with livestock in more remote areas (more human interaction)
- Puppies should be reared with mature 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 – get to know them!
- Puppies (and working adult dogs) should never be corrected for exhibiting guarding behaviors (including barking)

Observations

- Not every dog will work in your situation
- A dog that starts out working well might change it’s behavior
- Over-socialization (in my experience) can create problems
- They are NOT pets!
- Expected working life depends on environment and individual dog – we average about 8 years
- Re-homing problem dogs
- Retiring dogs

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



What do our customers want?

- As direct marketers, our practices are open for all (including our customers) to see!
- <u>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).</u>
- 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?
- LGDs offer 24/7/365 protection (as opposed to traps or firearms)

Importance of Relationships

- Animal Control
- County Trapper
- Law Enforcement
- Neighborhoods
- Landowners
  - Predator control
  - Dogs

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"

UC Rangelands Wolf-Livestock Research

- UCD research group and UCCE are developing an economic evaluation to measure the direct and indirect economic effects of predators (especially wolves) on commercial-scale livestock production.
- Evaluation tool will measure effects on livestock performance, reproductive success and labor/overhead costs.
- Will include producers both within and outside of current wolf range.
- Longitudinal study – will go back to same operations for 15 years (and expand to new operations as wolf range expands.
- For more information, contact dmacon@ucdavis.edu

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