



GUARD AND HERDING DOGS

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Guard and herding dogs are very popular in the sheep world. In fact in some cases I think the reason that operations have sheep is so that they can train herding dogs. While it is a joy to watch a good herding dog and owner work a group of sheep I have a few cautions that I would like to pass on to sheep/dog owners.

First of all dogs should handle sheep with the least amount of aggression that is required for the job. Bite wounds from over aggressive dogs can lead to infections or fly strike. The logic of herding sheep with dogs is based on the sheep moving away from the dogs out of fear. While this is effective in terms of herding I have often thought about what this means for the sheep. We know that elevated stress hormones can be detrimental to implantation of embryos during breeding season. Therefore I think that it is prudent to use herding dogs cautiously, at least while sheep are being bred.

From a disease standpoint the most common disease which can be transmitted from dogs to sheep is cysticercosis. This is the intermediate stage of a tapeworm in dogs and foxes that belongs Taenia genus. The adult stage is in the canine or fox. Eggs (proglottids) are shed in the feces. If sheep consume the eggs during grazing the eggs hatch, penetrate the small intestine and are carried via the bloodstream throughout the body. The preferred tissue for development is muscle where the immature worm forms a cyst. While the cyst is generally asymptomatic, e.g. it causes no harm to the sheep, occasionally lambs with cysts on their heart can suffer heart damage. The financial damage of cysticercosis is at slaughter where affected meat must be trimmed from the carcass. Multiple disseminated cysts can cause the entire carcass to be condemned.

Prevention of cysticercosis is easy in farm flock situations simply by deworming guard and herding dogs every six months. Since sheep serve as an intermediate host feeding dog food to the dogs and not allowing them to chew on dead sheep are also important. Unfortunately in ranches sheep control is difficult. Because coyotes, wild dogs and foxes can all harbor Taenia tapeworms there is little that can be done except predator control. Of course, as with farm flocks, any herding or guard dogs should be dewormed for tapeworms every six months.

Another parasite that can be transmitted between dogs and sheep is Sarcocystis. This is a group of coccidian parasites of dogs. Dogs shed the parasite in their feces. If sheep or goats consume the parasite it penetrates the small intestine and is spread throughout the sheep or goat via blood. Like cysticercosis, sarcocyst sp. have an affinity for muscle where they form a small microscopic cyst. The parasite lies dormant in this cyst until the sheep or goat dies and if consumed by a carnivore then completes its life cycle in the carnivore. While it takes a number of cysts to impair muscle or nerve function large infections can lead to muscle weakness or death. Like cysticercosis, sarcocystosis can result in trim or condemnation at slaughter and is commonly referred to as Eosinophilic Myositis. Eliminating Sarcocystis sp from dogs is difficult especially given that most infections are asymptomatic. However by simply not allowing guard or herding dogs to eat raw meat we can break the cycle and prevent infection in the dogs. In range conditions predator control can reduce the risk of Sarcocystis infection the other way around. Maximizing heterosis should always be a priority in commercial sheep production.