

Say No to Cottonseed in Goat Feed

A short article was published on the deaths of four goat guardian dogs who died of heart problems over the course of three years, usually in the winter. (Pannill et al. April 2006) The culprit was cottonseed in the goat feed.

Cottonseed contains a high concentration of gossypol, which is a toxin that affects primarily the heart and liver. Ruminants can tolerate higher levels of gossypol than animals with only one stomach because it binds to proteins in the rumen. An animal with only one stomach, such as a human, a dog or a pig, is much more susceptible to the poison. However, even young lambs and calves have been found to have toxic reactions to gossypol; that can probably be said about young kids, as well. This is due to the fact that their rumens are not yet fully developed and, in many cases, occurs when they are on free choice feed.

Cottonseed and cottonseed meal are now used as additives in livestock feed. This is important to know if you have a livestock guardian dog that develops depression, difficulty breathing, appears to be having a heart attack and ultimately dies, and you know that the dog consumes goat feed. Gossypol toxicity also may be a consideration if you have a number of kids seeming to die of overeating disease, or developing chronic, difficult breathing, unthriftiness, failure to respond to antibiotics and going off feed. These can be signs of such poisoning.

No treatment currently exists for gossypol poisoning, although its course can be reversed with removal of the cottonseed in feed for a period of time.

The writers estimated the amount of goat food that a dog would need to have consumed to cause their fatal heart damage was only 3/4 cup daily for a few weeks. (Kid feed contained .01% and the does' was .06%.)

You can do at least two things to avoid situations such as this: 1.) Read the feed tag and make sure you know what you are feeding your animals/aren't buying feed with cottonseed or cottonseed meal; and 2.) Keep your guardian dog away from the goat feed. To read more, see the Oklahoma Cooperative Extension web site at www.osextra.com and look for the fact sheet "Gossypol Toxicity in Livestock."

From "Health and Science News," *Ruminations* #53