By Lark L Burnham, Phi Ruminant Nutrition

When the country experiencing severe drought, it might seem untimely to discuss moldy feed. Available feedstuffs are often outrageously expensive, despite questionable quality. Although clean, well-cured hay is always preferable, it may not be an option this year.

Aflatoxins, mycotoxins, and ergotism are just a few of the diseases caused by one or more species of mold that grow on either grain or forage. Some grow on the plant before harvest, some on improperly processed hay in the field, and some in storage. In each case, the danger to livestock is from toxins produced by the mold.

Mold on hay and bagged supplement are the biggest threat for alpaca producers. Be suspicious of bales of hay that:

- · Are heavier than expected
- Have white patches, especially in the center
- · Have sections that do not separate easily
- Have a sour or sweet smell smell

Alpacas are selective eaters, when presented with moldy feed; they may pick out the few good leaves and leave the rest. Expect considerable waste.



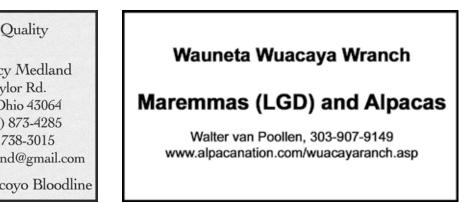
Pellets can mold if they had gotten wet during storage. There may be hard clumps mixed in with the free-flowing pellets. Discard the clumps and any pellets that look questionable. Moldy feed is serious business; it can make animals very sick or even kill.

What can a producer do if clean feed is not available or is just too expensive? There are at least two options:

- a) Dilution
- b) Bentonite (also known as Montmorillonite of ball clay)

Dilution only works if the producer has a quantity of clean hay with which to mix the moldy stuff. It is also more practical with grain or pellets. The idea is to reduce the concentration of the toxins to a level that can be tolerated by healthy animals. Those that are unhealthy, very young, pregnant, or lactating may still be susceptible. Healthy animals are better able to cope with contaminated feedstuffs.

Bentonite is very finely ground clay that absorbs toxins in the animal body. It has been used in human alternative medicine for centuries. It can be dusted

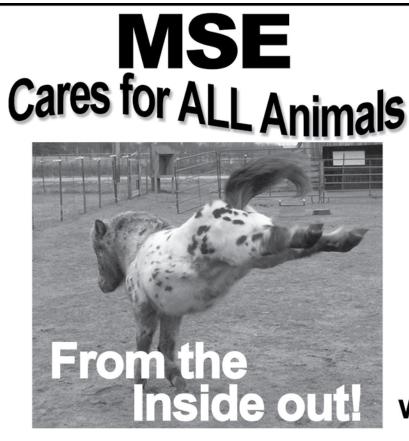


on pellets or added to mineral mix. Because it is only effective while it is in the body, it must be fed daily. Bentonite is cheap (it should cost less than \$10 for a 50 lb. bag) and tastes and smells like dirt. Because it is good at absorbing water, bentonite is often used as a sealer for ponds and water tanks. Whatever is absorbed (toxins, water, bacteria, etc.) is carried safely out of the body. This ability to trap water is why it is a major ingredient in products sold to control scours in livestock. Ask your local feed mill to order it if they don't have it on hand.

Molds can survive in the rumen, which means they will continue to produce toxins. Although probiotics don't do much with toxins that have already been secreted, they can control the source after it has been ingested. Probiotics can also help alpacas get the most out of whatever you feed. Clean, well-cured hay and free-flowing pellets are always preferable over moldy feed. When cost and availability force a producer to use sub-par feedstuffs, simple precautions can prevent disaster.

About the Author:

Lark Burnham received a B.S. in Animal Science (1979) from Kansas State University and an M.S. in non-ruminant nutrition (1995) from Kansas State University, Manhattan, and a Ph.D. Doctorate in ruminant nutrition (2004) from Texas Tech University, Lubbock. Her special interests are comparative nutrition, the role of the micro flora in all mammals, fiber digerstion, and probiotics. Lark currently works for Natur's Way, Inc., Horton, KS which produces MSE probiotics.







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