

“Hay Gorging”

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Ruminant nutrition

Many alpaca producers know that a reduction or cessation of feed intake can be a signal that something is wrong. However, those same producers may not realize that any change in feed consumption, up or down, should raise a red flag.

Stress kills beneficial microorganisms in the rumen/C1. The void is slowly filled by opportunistic pathogens, many of which are already residents in the rumen, but in small numbers. They are usually kept under control by the beneficial microbes.

Pathogens do not usually degrade, and roughage, undigested hay or pasture is pushed down to the third compartment. Small pieces and amounts can usually pass through to the small intestine. However, if those roughage fragments are not significantly degraded, they can ball up and form a mat. These are also called phytobezoars, and were described in the last issue.

Undigested roughage also means insufficient energy absorption. Affected animals will consume greater and greater amounts of roughage in an attempt to make up the deficit. I call this “hay gorging” There are at least two scenarios where hay gorging may be seen, both involve rumen disruption:

- a) Rumen disruption following a major stress
- b) Recovery from an illness and a prolonged fast

Rumen disruption following a major stress

Disruption, or the proliferation of opportunistic pathogens in the absence of controlling beneficial species, can occur after major stresses such as weaning, shearing, transportation, and showing. A series of seemingly minor stresses can also throw the rumen off balance. Each stress makes the alpaca more vulnerable to others, especially if the successive events occur within a few weeks or even months. There will be a gap between the initiating stress(es) and development of rumen disruption. This is because it takes time for microorganisms to multiply, both beneficial and pathogenic species.

Symptoms may not become obvious for months. Changes in feed consumption will be too small to notice at first, and may be dismissed as a “healthy appetite”. The truth is that the animal is slowly starving to death. They may suddenly stop eating when the hay mat blocks the connection between C3 and the small intestine. The alpaca may also display symptoms of abdominal pain such as lying with hind legs to the side.

Recovery following a prolonged fast

This situation may also have initiated from a major stress, but in this case, the animal stopped eating shortly afterwards. The anorexic alpaca may have been given medications and/or probiotics during this time, and finally started eating again.

The relieved producer’s first impulse is to try to get as much feed into the recovering animal. However, this is a grave mistake and may actually complicate recovery. Why?

A rumen that has sat idle for several days will have certainly lost beneficial microorganisms. These microbes need the regular ingestion of roughage, vitamins, and minerals in order to grow and divide. If the rumen was already disrupted prior to the fast, the numbers of beneficial microbes was already reduced.

A sudden influx of roughage in an environment dominated by pathogens that do not digest forage means most of that hay or pasture is going to end up in C3. This can lead to impaction and severe abdominal pain.

Recovering alpacas should have limited access to roughage after they begin eating again. Slowly increase this amount every few days and watch for changes in stool consistency. The recovery will be enhanced if a concentrated probiotic is given for at least two weeks after the animal starts eating. Longer if stool consistency is not normal.

The take-home message

A red flag should go up if the quantity of roughage consumed changes, whether up or down. Alarm bells should go off if a “gorger” is also losing weight. Big appetite + weight loss = BIG problem.

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 digestion, and probiotics. Lark currently works for Natur’s Way, Inc., Horton, KS which produces MSE probiotics.