THE DILEMMA OF THE OBESE ALPACA

BY LARK BURNHAM, PHD, RUMINANT NUTRITION

The term "easy keeper" is used by horse people to describe animals that maintain their condition with less and/or lower quality feed then other horses. Easy keepers often have lower metabolic rates and therefore, require less energy to maintain optimum condition. There is a growing epidemic in the alpaca industry of overweight or obese animals.

Some of these "fatties", as some alpaca producers call them, are "easy keepers". Others are just overfed, either from ignorance or aggressive feeding behavior. Whatever the reason, obesity is a serious problem. Associated health and production issues include:

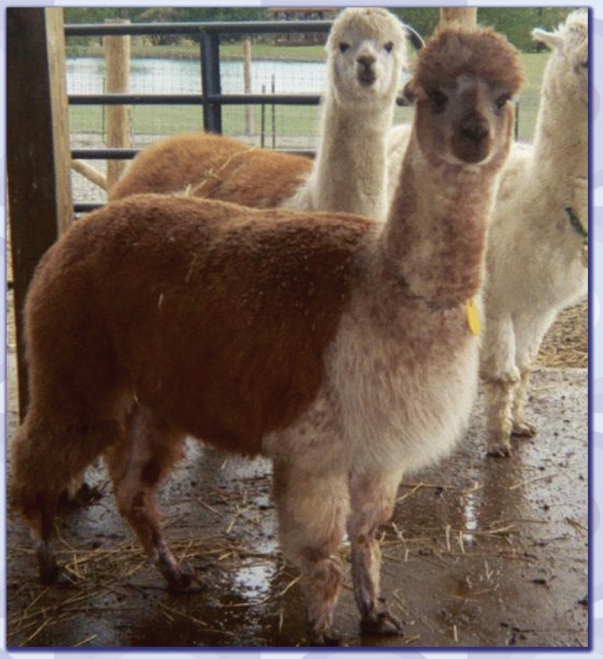
- *Shorter productive life*
- *Shorter total lifespan*
- *Decreased milk production*
- May require *more services/conception*
- *Increased potential for dystocia,* or difficult birth
- *Increased potential for joint problems*
- *Decreased fiber quality* - as the quality of the diet increases, the quality of the wool decreases

There are indications that excess weight is not permanently detrimental, but only if the animal is returned to optimum weight. Once their condition is under control, these animals should return to normal productivity.

As every dieter knows, it is easier to keep weight off than to lose the excess. However, unlike humans, alpacas usually sport a dense fleece, that like winter apparel for humans, hides a multitude of sins. Therefore, a hands-on approach is necessary to identify overweight and obese animals. Body scoring was discussed in the first article in this series (American Livestock, Winter 2008, p. 120).

Because alpacas, like humans, evolved in a feast or famine environment, if energy input (diet) surpasses energy output (exercise), the excess energy (in the form of fat) will be stored. Therefore, weight loss is best achieved by either *decreasing energy input* or *increasing energy output* (or both). In alpaca diets, the ingredient with the greatest energy density is grain.

BENCHMARK'S TRECOYO WHIRLWIND



ORO'S APRIL

Unfortunately, grain, usually in the form of pre-bagged supplements, is often overfed. Many times this is because well-meaning owners are trying to meet their animals' vitamin and mineral needs. Many of these animals also have access to a vitamin and mineral mix.

There are three major times in a female alpaca's life when extra energy may be needed: growth, late gestation, and lactation. Extra energy, preferably in the form of a protein-energy supplement (without added vitamins and minerals) should be limited to these periods, and based on body score.

Alpacas that are determined to be obese should be separated, at least during feeding time, and restricted to grass hay or pasture and a vitamin/mineral mix. A small amount of grain may be added to increase vitamin and mineral intake at certain times of the year. Animals in Winter dry lots may consume more vitamin/mineral supplement than those on Summer pastures because of boredom and accessibility. The use of supplements that contain grain, as well as vitamins and minerals, should be avoided. No matter what many producers swear, grain is mostly calories and can make alpacas fat, especially if they have a slow metabolism.

There are animals which can get fat on pasture. In these cases, limited grazing time is recommended.

Note: Any change in diet should be made over the course of at least two weeks to allow the micro-organisms of the rumen to re-organize, and to minimize stress.

One creative producer took his "fatty" for a jog every day. Although this method is beneficial for both alpaca and owner, it is not an option for everyone. An easier method would be to group animals by condition and feed accordingly. If an overweight or obese alpaca is still grabbing more than their share, then they need to be sequestered, at least during feeding time.

Alpacas that are kept at or near optimum condition will live longer, more productive lives. They will have fewer complications during pregnancy, parturition, and lactation, and will produce fiber that is as close to their genetic potential as possible.

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Lark Burnham received a B.S. in Animal Science (1979), from Kansas State University and a M.S. in non-ruminant nutrition (1995) from Kansas State Universtity, 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.