

# ALBERTA SHEEP

## Use Caution When Changing Sheep Rations

Each year brings different challenges with it when dealing with livestock feeding programs and management. Mature cereal crops for grazing, greenfeed flax and silage crops have often been questioned as to whether or not they fit in sheep diets. Some have had better results than others, however, with proper management, all can find a place in our sheep rations.

### Grain Overload

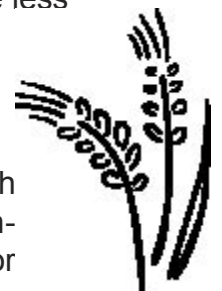
This is usually the result of consuming large quantities of grain or pellets that livestock are not accustomed to eating. Sheep with access to standing crops or stubble pastures containing excess grain or those animals put on feedlot rations without proper introduction may experience grain overload or what is known as *Lactic Acidosis*. Grain and finely ground carbohydrate (such as is found in pellets) is rapidly fermented by bacteria in the rumen, producing large quantities of lactic acid, which lowers the pH in the rumen.

Consuming excess processed grain is more dangerous than consuming excess whole grain. If feeding grain-based pellets (barley, oats, wheat, corn, lentils or peas) be sure to introduce the animals slowly if the prior ration consisted mainly of roughages. Any factor that causes variation in grain intake, or variation in the availability of carbohydrate, may lead to grain poisoning problems. Effects of grain poisoning may be worsened if the animal is also suffering from cold stress. For example, cold weather or a storm or the addition of an unpalatable additive may put sheep off of their feed on one day and the following day they may gorge themselves.

When starting lambs on feeder rations you should increase the grain portion of their diet by no more than 10% every two to three days. Commonly, lambs that have not been creep fed can start on a 20% grain ration whereas, those coming off a creep ration can start on a 40 to 50% grain ration and move up to their finishing ration (80% grain; 20% roughage). In addition to the grain and roughage portion, finishing diets should also include salt and a calcium source. Salt can be added to limit intake if used at higher rates but is mainly used to decrease fermentation and acid production and increase utilization of grain in the intestine. Salt is generally included at about 1 to 2% of the ration. Calcium, usually limestone (38% Ca) should be included at about 1% of the ration as most grains, excluding pulse grains (peas, lentils) are deficient in calcium. If feeding legumes (alfalfa or clover) as the roughage source less limestone would be required.

### Greenfeed Flax

Flax crops hit with an early frost and then developing a second flush of growth do not have much salvage value if grazed. However, management is key to the successful use of these crops. Prussic acid or



hydrocyanic acid poisoning in livestock can result when this crop is fed. Conditions that cause plant growth to be stunted such as drought, wilting, or frost can result in the buildup of cyanogenetic glycosides, which are converted to cyanide during the process of digestion. The highest concentrations of the acid are found in the leaves and stems of rapidly growing plants. Symptoms are similar to nitrate poisoning. Never turn hungry livestock out on to a field that is recovering from drought or frost or onto a succulent flax field. Properly cured flax hay and silage usually lose a majority of their prussic acid poisoning potential.

## **Silage for Sheep**

Good quality silage can be used in some lamb and ewe rations in limited amounts. Typically, barley or oat silage will have crude protein values of 10-12% and energy values of 58-64% TDN on a dry matter basis. Since silage has a moisture content of 50-65% it makes this roughage source bulky, thereby limiting its use in pregnant ewe rations. This means your sheep need to consume larger amounts of these feeds compared to similar quality hay in order to take in enough dry matter (DM) to meet their nutrient requirements. The ration must be balanced to ensure all nutrients are in correct proportions to meet the animal's requirements. Voluntary intake of silages by sheep will be less than hay or greenfeeds. Silage needs to be introduced slowly into the ration until sheep are accustomed to it. When feeding silage be prepared for increased urine output due to the moisture content so you may require more bedding. If animals are fed indoors or in confined spaces, a stronger ammonia smell will be present due to the fermentation of the silage. While gestating ewes can do well on a high proportion of silage in their ration, be cautious of offering too much in lamb and pregnant ewe rations.

There are two new *Alberta Sheep Facts* information sheets with details on feeding silages (fermented feeds) to sheep. The fact sheets were developed jointly between Alberta Agriculture Food & Rural Development and Manitoba Agriculture & Food. Contact the Alberta Sheep & Wool Commission (403-948-8533) for a copy or download a copy from Ropin' the Web [www.agric.gov.ab](http://www.agric.gov.ab)

Each flock has its own unique situation for resources and management. Therefore, consult with your nutritionist or call the Ag Info Centre 1-866-882-7677 to get more details before changing feeding programs.

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