



**Animal Health
Fact Sheet**



NUTRITIONAL DISEASES OF SHEEP

Clell V. Bagley, DVM, Extension Veterinarian
Utah State University, Logan UT 84322-5600

July 1997

AH/Sheep/10

Nutritional diseases result from a deficiency, an excess or an imbalance of nutrients. They are common but usually produce only sporadic cases of illness or death loss. However, the wrong combination of events can lead to devastating losses.

ENTEROTOXEMIA (OVEREATING DISEASE)

This disease is caused by toxins produced by a bacteria which commonly grows inside the intestine of sheep (and other farm animals). Its occurrence is nutritionally related since the bacteria grow best when animals are ingesting large amounts of high energy feeds. The toxin is produced and absorbed quickly and usually causes acute death. It must be distinguished from bloat, acidosis and other intoxications.

The causative bacteria is *Clostridium perfringens*. Several strains can be involved, but type D and type C are the most common.

Some control can be achieved by careful regulation of energy intake and the feeding of antibiotics. However, good vaccines are available and should be used for animals on high energy rations. Two doses of vaccine are required, 3–4 weeks apart. The animals will not have a protective level of immunity until 7–10 days after receiving the second dose. Newborn lambs do not respond well to vaccines and may even require a 3rd dose before developing an adequate level of immunity. Newborn lambs can be vaccinated at birth, 2–3 weeks and again at 4–6 weeks of age. Or, the ewe could be vaccinated at 2 months and 1 month prior to lambing to provide protection to the lamb through the colostrum. In this case, the lamb should be vaccinated at 3–4 weeks and again at 6–8 weeks of age. Lambs from either of these systems should receive a booster at weaning, if they are being placed onto a feedlot ration.

Sudden feed changes will result in some death loss even in lambs that have been vaccinated and that are being fed antibiotics. Avoid sudden changes.

COLOSTRUM DEFICIENCY

A major cause of death in newborn lambs is starvation; lack of ingestion of adequate milk (colostrum). Other major causes of death are scours and pneumonia, both of which are more common when the lamb doesn't get adequate colostrum. Newborn lambs have no immunological protection at birth and they must acquire it from the colostrum or they will die before they can produce their own. Timing and amount are both important, as well as the quality of

colostrum. Milk out and tube feed, if necessary. Cow colostrum can be used for lambs and a dried form of colostrum is now available from commercial sources for calves.

PREGNANCY TOXEMIA (KETOSIS)

This disease occurs in ewes late in pregnancy and almost always in those carrying twins or triplets. It may occur in thin or in very fat ewes and it often occurs after shipping or with major feed changes during this period.

Separate ewes on the basis of body condition and feed to avoid getting them too fat or too thin. Feed to prevent them from getting into a negative energy balance the last month of pregnancy. Feeding molasses is not a good preventive; grain is of greater benefit.

This disease must be differentiated from hypocalcemia (milk fever and transport tetany), and hypomagnesemia (grass tetany).

INDIGESTION

The rumen requires about 2 weeks to gradually adjust to new feeds and for a new microbial population to develop. Sudden changes in feed result in indigestion, or lack of normal rumen function. This can lead to more serious problems as well as severely decreasing weight gains.

TOXICITY

One of the major forms of poisoning is acidosis, or grain overload. Too much grain intake results in production of such large volumes of acid that the animal's whole system becomes acidotic. It often causes death or at least a severe indigestion and prolonged recovery. Prevent accidental exposures to grain and increase the amounts fed, gradually.

The coccidiostats monensin and lasalocid can cause intoxication of sheep. Calculation of amounts to feed are very critical and a decimal error can cause a disaster.

Utah State University Extension is an affirmative action/equal employment opportunity employer and educational organization. We offer our programs to persons regardless of race, color, national origin, sex, religion, age or disability.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert L. Gilliland, Vice-President and Director, Cooperative Extension Service, Utah State University, Logan, Utah. (EP/DF/07-97)