URGENT NEWS

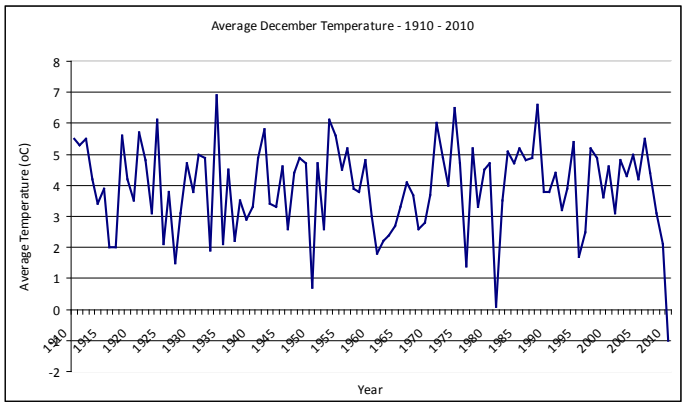
Issue date: 21/01/11

No 149: Avoiding Disasters in the Sheep Enterprise

Avoiding Disasters in the Sheep Enterprise

Winter Months:

December 2010 saw the coldest UK temperatures for over 100 years. A significant increase in the incidence of urinary calculi in fattening lambs has been reported, whilst the forthcoming lambing period will face a number of problems unless correct management steps are taken.



Urinary Calculi (Kidney Stones):

Winter urolithiasis is believed to account for approximately 18-38% of lamb deaths in winter, with young, male lambs accounting for the largest percentage of these deaths. Urolithiasis, or urinary calculi, are formed from the deposition of insoluble salts (primarily magnesium ammonium phosphate) in the kidney or bladder, ultimately causing death by uraemia (kidney failure) and/or septicaemia.

Removal of the calculi is costly; therefore, prevention through both farm and dietary management is essential.

Severe weather conditions this winter can lead to a reduced water intake due to freezing of water pipes and cold water, causing over saturation of urine with magnesium and phosphorus and an increase in incidence of urinary calculi.

Preventative Measures:

- The key factor is the consumption of adequate amounts of fresh water to dilute the urine and prevent over saturation with magnesium and phosphorus. Where possible, water temperature should be maintained at around 10^{o}C
- Offer salt (minimum 1%) and salt blocks to encourage water uptake
- Maximise saliva production by ensuring access to coarse roughage such as straw
- Diet is seldom the factor that triggers calculi problems, but check that magnesium and phosphorus levels do not exceed 0.23% and 0.4% of the diet respectively and that the calcium:phosphorus ratio is approximately 2:1
- Add up to 1% ammonium chloride to the diet to acidify the urine and reduce stone formation
- The risk of scald needs to be minimized by the changing of wet bedding

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Tupping Disaster – Empty Ewes or Large Lambs:

Heavy snow fall around tupping will have increased the number of barren ewes as tups become less effective in cold weather. Severe cold temperatures can cause an increased incidence of reabsorption of the embryo, thus increasing the likelihood that only one lamb, not two, will develop to full term. Continuing to feed the ewe to support 2 lambs is wasteful for barren ewes and for single-bearing ewes will lead to the development of a large lamb, causing increased dystocia (birthing difficulties).

Preventative Measures:

- Scan ewes during pregnancy
- Separate into groups according to lambing % and body condition
- Feed by group according to requirements

General Feeding:

Ewes should ideally enter the last 2 months of pregnancy in condition score 3. Since 70% of foetal growth occurs in the last 6-8 weeks pre-lambing, dietary management of the ewe during this period is critical. Optimum ewe management will:

- Avoid the development of oversized lambs
- Produce stronger, larger lambs with lower mortality rates and better growth rates
- Ensure better quality colostrum
- Support a higher yield of good quality milk
- Maximise performance and profitability

Concentrate feeding should differ by expected lambing %, whilst thin ewes also require higher or earlier feeding. A typical example is shown in the table. When concentrate intake exceeds 0.5 kg/head/day, it should be divided into two feeds per day to reduce the risk of acidosis.

Barren ewes require no concentrate feeding but require mineral supplementation, most simply through mineral buckets.

Weeks Before Lambing	8	6	4	2	1
Silage (11MJ/kg DM) + 18% CP Compound (kg/day)					
Triplets	0	0.2	0.4	0.6	0.8
Twins	0	0	0.3	0.4	0.6
Sngles	0	0	0	0.2	0.2
Hay (9 MJ/kg DM) + 18-20% CP Compound (kg/day)					
Triplets	0.3	0.5	0.7	0.9	1.2
Twins	0.2	0.4	0.6	0.8	0.9
Singles	0	0	0.2	0.3	0.5
Straw (5-7 MJ/kg DM) + 20% CP Compound (kg/day)					
Twins	0.5	0.7	0.8	0.9	1.1
Singles	0.3	0.4	0.5	0.6	0.7

Pregnancy Toxaemia (Twin Lamb Disease):

Twin lamb disease may be a significant problem this year resulting in decreased lamb viability and/or increased mortality in ewes and lambs. It is caused by excessive energy deficiency in ewes in late pregnancy and is often associated with depressed appetite, extreme backfat mobilization and weight loss. Factors which increase the risk of twin lamb disease include:

- Overfat ewes (for example, single-bearing ewes that have been fed for twins)
- Excessively thin ewes associated with long term inadequate feeding
- Depressed ewes' appetite as the growth of the foetus decreases rumen volume
- Extreme cold weather conditions, resulting in ewes having higher energy requirements for maintenance and reduced capacity to graze

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Preventative Measures:

- Scan and group ewes according to lambing % and body condition; feed accordingly to prevent overfat or overthin ewes
- Provide a nutrient dense, high DM ration based on high quality forage and concentrates to maximize energy intake when appetite is depressed
- Space for ewes to feed without bullying
- Ensure forage is freely available
- Clean troughs and clean, fresh water
- Maintain body weight through pregnancy - a loss in body condition score of more than 0.5 is problematic
- Minimise moving and transport to minimise stress so that the ewes are not off feed for too long

Hypocalcaemia:

A reduced appetite leads to a decrease in calcium intake meaning calcium demands for milk production are not met around the time of lambing. It is very common in ewes carrying twin or multiple lambs and frequently occurs with pregnancy toxaemia – usually the primary cause.

Preventative Measures:

- Adequate energy content
- Adequate mineral supplementation (compound, farm mineral or mineral bucket)
- Calcium level of 10 g/head/day (minimum of 1% in ewe concentrate)
- Magnesium supplementation of 5 g/head/day (0.5% in concentrate)

Winter Shearing:

Recent reports have suggested that winter shearing of pregnant ewes in January (6-8 weeks before turnout), can pose potential benefits:

- A 10-15% increase in appetite
- Lambs are born, on average, one-and-a-half days later and 0.4-0.5kg heavier, resulting in less mortality
- Wool is of a superior quality
- Ewes do not carry excessive water and muck
- Lambs are more likely to be protected from the bad weather
- Ewes do not have to be rounded up again for shearing once they have been turned out to grass.

Conclusion:

It has already been a difficult winter for the sheep enterprise. Attention to detail through to lambing and beyond will be critical to profitability this year.

Further information can be obtained from the Frank Wright Trouw technical department on 01335 341102.

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