



## WINTER NEWSLETTER

### WELCOME TO THE NEWSLETTER

*A Quarterly roundup of practice news and information relevant to the season*

#### **Ventilation of housing for pre-weaned dairy calves:**

##### **Ventilation:**

Poor ventilation is a contributing factor to respiratory problems on farm. Good ventilation allows for the delivery of fresh, clean air in every part of the building and this, in turn, results in the removal of microbes, moisture, dust and gases.

- Natural ventilation: Variable as relies on wind-speed and wind-direction factors in order to be effective.
- Stack effect: There will seldom, or never, be any stack effect in housing for pre-weaned dairy calves because the animals in the building do not produce enough heat for this to occur.
- Positive pressure tube ventilation: This is a fan and duct system which is becoming more commonplace in calf buildings due to recent improvements in design. These systems are designed to each specific building and set-up based on building dimensions, pen layout and number of calves to be housed. Set-up must be correct in order to prevent draughts/ chilling of calves. These systems require proper cleaning and management to ensure function and longevity.

How do you assess ventilation?

- Smoke from smoke capsules or machines can be useful to visualise air speeds and air clearance rates.
- Recording humidity and minimum/maximum temperatures is helpful to monitor how appropriate the calf housing is over a period of time.

##### **Wisconsin Calf Health Scoring Guide:**

A scoring guide for pneumonia and scours in pre-weaned dairy calves was developed by vets at the University of Wisconsin to assist with treatment decisions. Calves are scored according to respiratory symptoms of nasal discharge, ear position, cough, temperature. Faecal consistency is assessed separately. Written descriptions and photos are provided to aid in assessment of calves and if the score is greater than 5 on the scale, treatment is required. The chart can be found at [https://fyi.extension.wisc.edu/heifermgmt/files/2015/02/calf\\_health\\_scoring\\_chart.pdf](https://fyi.extension.wisc.edu/heifermgmt/files/2015/02/calf_health_scoring_chart.pdf).

#### **Pre-calving metabolic profiling in suckler cows:**

Blood testing cows prior to the onset of the calving period can allow assessment of the protein, energy and mineral status of the suckler cow. The nutritional status of the cow may affect calving ease, vigour of the newborn calf, the quality of colostrum produced plus subsequent fertility in the following calving year.

### **The 5 Q's of Colostrum:**

**QUALITY:** Varies between individual mothers. Use Brix refractometer to check (>22% = 50mg/ml IgG = good in cows; >26% = good in sheep)

**QUANTITY:** 10% of bodyweight of a calf (eg. 5l for a 50kg calf) or 50ml/kg in a lamb (eg. 250ml in a 5kg lamb).

**QUICKLY:** In the first 2-4 hours of life (ideally in first 2 hours).

**SQUEAKY CLEAN:** Bacterial levels in colostrum increase quickly after harvesting, so collect in a hygienic manner and ensure all tube/teats are disinfected after every use. Wear gloves/wash hands regularly.

**QUANTIFY:** Blood samples can be taken from calves aged 1-7 days or lambs 1-5 days to assess ZSTs which tell us about the transfer of immunity via colostrum.

### **Brix Refractometer:**

A Brix refractometer is designed to measure the amount of sucrose in a solution but studies have found that Brix values can be related to the immunoglobulins (specifically IgG) in the colostrum, and so give us a guide to the **QUALITY** of the colostrum. This little instrument may be a worthwhile investment if you are looking to monitor the quality of the colostrum of your animals and also if you are looking to harvest appropriate colostrum for storage.

Cost: ~£15-£200 for one that you read the result on a scale OR ~£200-£400 for a digital equivalent.

Hint: Look for one with a scale of 0-32%. There will be lots of options if you search on your favourite search engine.

The best time to undertake the blood testing is in the month prior to calving as this allows for time to adjust the diet to have an effect in the herd. However, it is important that the cows have had at least 2 weeks to adjust to a diet/mineral change prior to blood testing so that the bloods are reflective of this change. It is recommended that a minimum of six cows should be sampled per group, and these animals should be representative of the herd. The cows should not have been restricted in their access to feed in the 48 hours leading up to the blood samples being taken as this can affect the accuracy of the results. Information on the feed ration, body condition scores and the forage analysis results should also be taken into account when interpreting the test results.

### **Prevention of E.coli disease outbreaks in the lambing shed:**

E.coli colonisation of the small intestine in new-born lambs can lead to 'watery mouth'. This disease can be recognised as lambs that are lethargic, bloated, fail to suck and are salivating excessively. It has been announced that the oral antibiotic spectinomycin (*Spectam*, Ceva) which was licensed 'for the prevention of bacterial neonatal disease (eg. watery mouth disease) in lambs which are at risk of colostrum deprivation' will no longer be available in the UK from January 2022.

### **PROTECT:**

✓ Make sure that ewe nutrition is correct in order to provide good quality colostrum. Consider metabolic profiling at 3-4 weeks pre-lambing to assess this (please telephone to book).

- ✓ Give a quality, balanced diet. Have silage analysed and take care in selecting suitable concentrate feed.
- ✓ Ewes are dugged and clean when come into the lambing shed.

### **PLAN:**

- ✓ Ensure that you have plenty resources to keep the lambing shed hygienic: abundant straw/shavings, disinfectants, lime, plenty labour(!), gloves, warm water, soap.
- ✓ A Brix refractometer can be used on farm (>26% = good in sheep) to measure colostrum quality.

- ✓ If there is concern regarding failure of passive transfer (where the newborn lamb does not get the antibodies it requires through the mother's colostrum), blood samples can be taken from lambs between 1 and 5 days of age to assess ZSTs.
- ✓ Be prepared that infections may be seen at the end of lambing if bacterial levels build up in the environment. Have a plan B to move lambing ewes to another shed/ lamb outdoors in the event of an outbreak.
- ✓ Keep good records.

#### **PREVENT:**

- ✓ Clean, dry and draught free conditions inside.
- ✓ Make sure lambs receive 50ml/kg of quality colostrum in first two hours and 200ml/kg in the first 24 hours.
- ✓ Collect and dispose of afterbirths.
- ✓ Clean and disinfect equipment eg. tubes and bottle teats.
- ✓ Turn ewes and lambs out onto clean pasture as soon as possible. Make sure there is sufficient shelter available outside.

#### **Sheep Scab:**

We have been alerted by Perth and Kinross council that there have been recent confirmed cases of Sheep Scab in the area. We would advise continued monitoring for itchy sheep and ensure preventative measures are in place. Sheep scab is notifiable which means that suspicion needs to be reported to the local APHA office (see <https://www.gov.uk/guidance/sheep-scab> for further information).

#### **At-risk lambs:**

These lambs may require extra attention to ensure they are receiving all appropriate **PREVENT** measures. Monitor closely for any signs of disease.

- ? Triplet and/or low birth weight lambs.
- ? Born to thin and/or poorly fed ewes.
- ? Born in a group with recent clinical cases.
- ? Challenging environmental conditions.
- ? Born later on in the lambing period.

#### **What to do in the face of an outbreak:**

- ! Act promptly.
- ! Contact your vet to make an action plan. This may include metaphylactic treatments (strategic treatment in at-risk groups) to prevent further losses.
- ! Focus on hygiene and colostrum. For example, increase bedding thickness or change bedding more frequently; improve efforts in lambing pen disinfection; consider moving risk groups to clean sheds or lambing them outdoors if conditions are favourable.

#### **What can we do in the future?**

- ? If you have problems with 'watery mouth' this lambing season, then take time to scuss this with the vet when doing your flock health plan review.

#### **Any volunteers?**

I'm looking for sheep farmers who are interested in benchmarking their antibiotic use compared to farmers in similar systems. I will use the information in our practice management system to calculate your antibiotic use using an industry standard format. The benchmarking will be done in a confidential manner so that your details won't be shared with the other farmers. The information will hopefully help you to assess areas for focus in your system. I am keen to facilitate a farmer led group for knowledge exchange in the future (if there is interest).

If you are interested, please email me at [cunninghamvet@gmail.com](mailto:cunninghamvet@gmail.com) and please include your flock numbers.

