



THE
WOOD
VETERINARY
GROUP



Happy New Year!

We hope that everyone has had a relatively stress free and peaceful time over Christmas and the New Year. Looking into the New Year, and now being past the shortest day of winter, this is a great time of year to set goals for the year ahead. One area that constantly requires review is calf management:

Calves – When do they feel the cold?

Cattle sheds used to be built to keep cows warm but cows are happiest between Minus 5°C to Plus 15°C. This is their **THERMONEUTRAL ZONE**. This is the temperature at which there is no effect on metabolic temperature regulation. The bottom of this range is the **LOWER CRITICAL TEMPERATURE or LCT** at which animals use up energy to keep warm rather than growing. However, calves are not ruminants yet (an adult functioning rumen is responsible for creating a significant amount of heat – it is like carrying around a kilowatt heater) and so have a very different **LCT** as per the table:

Even though it has been mild as winters go, the persistent damp weather raises the LCT and so we need to treat calves accordingly. So how can we combat the fact that calves born in English weather will be using most of their daily nutrition to maintain body temperature and are therefore susceptible to disease (little nutrition left for immune function) and are unlikely to be growing well?:

1) Feed more milk to compensate during winter months:

Milk is very quickly digested and calves are more than capable of ingesting the extra volumes suggested when temperatures drop.

As with all calf management, gradually increase and decrease feed allowances. Plan to feed higher rates throughout winter and then adjust if it is particularly cold. By over 6 weeks old they are capable of tolerating 0°C but not below. For calves <6 weeks old:

Feed 30% more milk at 10°C

Feed 40% more milk at 5°C

Feed 50% more milk at 0°C

2) Calf coats

Calf coats are an ideal way to stop calves being below their LCT, especially if they are sick or premature calves. They can also be used where there is a short term issue with accommodation but are definitely not the long term solution.

Use coats that are breathable to stop sweating and machine washable (must be washed and dried between each calf!). Once the temperature starts to rise or the calf is of an age to cope with the ambient temperature; start by taking coats off in the day & replacing them at night for a week. These calves won't have a good hair coat or subcutaneous fat reserves to cope immediately and so need to be weaned off their coat gently.



3) Nesting Scores



Keeping walls solid up to 6ft and then open slats or blinds is a good start to calf accommodation but straw is a very good way to stop drafts, prevent wind chill and stop calves from being damp and losing valuable heat to the atmosphere. Bedding should completely cover the legs when lying down to get a nesting score of 3 like the photo here. Score 1 or 2 you can see most of the calf when lying

down. A damp bed will never score very well as moisture soaks up through the straw and so ensure drainage is sufficient. Score 3 beds are linked to significantly lower rates of respiratory disease – even with the current price of straw it is definitely cheaper than sick calves!

Get a maximum/minimum thermometer up in your calf sheds to know what needs to be done and when!

Ringworm

Most farms will have had ringworm in calves at some point in the recent years. It is a fungal infection of the skin and hair that is also transmissible to people. Not only does it look unsightly especially to prospective buyers or inspectors but it often leads to secondary skin infections, markedly lower growth rates and scarring that leads to hide defects for slaughtered cattle. Sometimes badly affected calves need euthanasing for welfare. The lesions start as a circular lesion of hair loss with a grey plaque but can spread to large areas primarily on the head and neck.

How is it spread?:

- Young calves are very susceptible and it is commonly manifested by about 2 months old. This is perpetuated by poor colostrum transfer at birth
- Fungal spores survive for many months in the environment and can be transferred from wood, straw, metal, clothing and of course get transferred from infected lesion to the next animal. As such daily activities of feeding and drinking cause high risk of transfer. This means that group reared calves are amongst the highest risk group to catch the infection. Spores survive in dark sheds for over a year.
- Other diseases such as BVD and underfeeding calves also increases likelihood of disease through immune suppression.



Whilst UV light does a good job at killing it off it is often too late and we cannot rely on an English winter having much in the way of sunshine. In most cases the lesions are self limiting but it can take 1 to 4 weeks between infection and the appearance of the first lesion, hence the unknown spread of infection.

How to avoid Ringworm outbreaks?

- All equipment and buildings need to be thoroughly cleansed and disinfected with effective chemicals between batches of calves – 4% Chlorine in the disinfectant has shown efficacy.
- Gloves should be worn to handle calves that have lesions and changed between calves not only to stop you spreading it but also to stop you catching it yourself.
- Keep infected calves separate until lesions have healed to stop whole groups becoming infected.

Treatment

Imaverol fungicidal wash can be used to treat clinical cases but requires application in a 1 to 50 parts dilution in warm water every 3 days for at least 3 to 4 times to soak the lesion and penetrate to kill the fungus. This reduces the spread of infection and should speed up the resolution of the lesion.

Bovilis Ringvac is a fantastic vaccine that can be used to both prevent cases and speed up recovery of already infected animals. We have several clients using the vaccine in young calves where certain sheds were repeatedly infecting calves and these cohorts have overtaken older animals in growth performance. The vaccine regime is:

- 2 injections 10-14 days apart – Can start from 2 weeks old
- 2ml dose in calves that are unaffected and a 4ml dose if they already have signs of ringworm
- Older animals (over 4 months) starting the course have a 4ml dose and 8ml if they are already affected
- This higher dose for affected animals boosts their immune response to speed up healing



Speak to us about implementing this vaccination regime in your calves