



THE
WOOD
VETERINARY
GROUP

FARM NEWSLETTER JANUARY 2018

In early December we had over 40 clients attend an evening at the pub to discuss beef and dairy calf rearing and pneumonia. We were delighted with the turnout and we're sure it has nothing to do with it being held at the pub!

The take home messages focused on:

- Harvest colostrum from cows **within 6 hrs** of calving – antibodies degrade and get diluted post calving
- Feed a minimum of 4 litres of colostrum to calves within 6 hours of birth
- Weigh or band calves at birth and at 6 weeks old to establish average growth rate
- Weigh a group of 3rd lactation adults to establish farm target weight for bulling and calving weights and therefore daily targets
- An elevated rate of growth in the first 2 months of a dairy heifer's life is positively associated with future milk production



Vaccines – how do they work?

We spent some time discussing Pneumonia and the negative impact on performance. Whilst many of you have become accustomed to treatment protocols, in an ideal world we prevent disease before it happens. Vaccines work by introducing the body to a part of the virus or a damaged virus. This exposure causes the body to create specific antibodies against that virus, so that when it meets it for the second time, the body has a base stock of antibodies ready to fight the infection. When calves are properly vaccinated it will:

- **Reduce the number of clinical cases of pneumonia**
- **Reduce the severity of any cases that do happen – reduces lung damage and growth check**
- **Reduce the shed of virus from infected calves to naive calves**

If we house calves in bad conditions with insufficient food and water, damp bedding and poor ventilation then we cannot expect the calves to respond to the vaccination, even if given correctly, and we will not see the benefit. Ensuring correct storage of vaccines and dosing is important – half a dose or a warm vaccine is a waste of your time and money and again no benefits will be seen.



Fever Tags

When the system fails and we get a case of pneumonia, lung damage and high temperatures start before we see clinical signs such as fast breathing and not eating/drinking. The earlier we treat an animal, the better the outcome of the case. In order to help us to detect pneumonia cases as early as possible there is an ear tag on the market that will flash red if the calf has a temperature over 39.6°C for 6 hours or more. This should then prompt you to take that calf's temperature and administer treatment as necessary stopping the case from progressing causing irreparable damage. Once an animal is over the risk age for your farm, the tags can be removed and put through a dishwasher and replaced into younger calves allowing for recycling of the tags through the system. The battery in the tag will last up to 2 years. Speak to us about **Fever Tags** if you are interested



Calves – When do they feel the cold?

Whilst we are on the calf theme....Cattle sheds used to be built to keep cows warm but cows are happiest between -15°C to +20°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.

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 in the table here:

So how can we combat the fact that calves born in English weather will be using most of their nutrition to maintain body temperature and are therefore susceptible to disease (little nutrition left for immune function) and are unlikely to be growing well?:

Calf age	LCT °C
< 3 weeks old	20 °C
> 3 weeks old	10 °C
+ moisture/wind	Raises LCT

1) Feed more milk to compensate during winter months:

Milk is very quickly digested and calves are very 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:

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. 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



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. Score 3 beds are linked to significantly lower rates of respiratory disease – using extra straw 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!

European Buiatrics Forum 2017

When it was a bit warmer, Louise attended a conference about the study of cattle and their diseases. Some of the most interesting areas of discussion were focused on foetal programming and how the way we manage the pregnant mother affects the potential of the unborn animal. We spend a lot of time selecting the right bull or semen to pass on the best genetics however this is only half of the story.

Genes need to be expressed for the potential to be unlocked and this happens due to genetic markers being turned on or off. Genetic markers are a signpost that tells the animal's cells to function a certain way, whether that be to grow muscle quickly or to produce good quality reproductive organs. Whether these markers are there or not is affected by the environment which the animal is in. The critical time is when the calf is still in its mother's womb until a couple of months after birth. For example, the ovaries of a female foetus are made around day 50 to 60 after conception; if the mother is in poor health or body condition at this time, then the heifer is likely to have a low chance of becoming pregnant as an adult animal. We fail to maximise the return from money and time that has already been invested.

Take Home Message:

We need to think about how we are managing the mother and young calf to achieve the maximum potential of offspring, maximising our investment in semen or a bull.

A New Face...

Flick Hockaday

We are delighted to announce that Flick joined Wendy, Sue and Julie in the farm office at the end of December and will be in the office from 10-6pm

Monday to Friday

She is from a farming background and has already been a great addition to the team

Please give her a warm welcome