

For every 1°C that the ambient temperature is below the LCT the energy requirements increase by 2%. Cattle can increase their overall intake by 20% in cold weather. Be aware that cattle with a lower body condition score will require more attention, and those cattle in poorer condition may require separation and individual management.

Dehydration

Frozen water sources can be a real challenge during the winter months. Dairy cattle require more water due to milk production, however water is a vital component for saliva production and rumen function.

Cattle	Amount of water (litres/day)
Cow with calf	50
Dairy cow in milk	68 - 155
Yearling	24 -36
2 year old	36 - 50

Salt Poisoning

Salt poisoning is a toxicity of sodium chloride concentration in the blood and most commonly occurs when cattle have been restricted from fresh water for more than 24hrs. This is the result of dehydration but is more likely to occur if the diet fed contains high levels of salt or the ration hasn't been mixed adequately. Animals consuming water that has accumulated in salt licks/blocks or from troughs that have been inadequately cleaned can be at increased risk of salt poisoning.



Signs of salt poisoning are:

- Thirst, accompanied with abdominal pain and diarrhoea
- Nervous signs: tremors, blindness and circling
- Rapid loss of body condition and muscle weakness
- Coma followed by rapid death.

Cattle showing signs of salt poisoning should be introduced to small amounts of fresh water until rehydrated and removed from any 'salty' water sources.

To prevent salt poisoning, you should:

- Check water sources regularly- especially water troughs and bore water
- If adding salt to rations, ensure the right amount is added and mixed adequately
- Do not allow water to accumulate in salt licks or blocks
- Regularly clean water troughs.

Cara Hatfield

I hope you had a good festive period, now on with the business of 2023!



Milk cows seem to be a mixed bag across the practice, when it comes to whether or not they will show you that they are in heat. Some are going strong, with good milk production and constituents, whereas others are keeping themselves to themselves. If you are in the latter category then it's worth looking at the energy status of your milkers. Once we've determined whether or not they are cycling (they could be completely silent- anoestrous) then there are a few ways to go about looking into energy status. If there

is little disease around calving (no held cleansings, ketosis and little mastitis) then it may be as simple as adding some extra energy to the diet to see if this makes a difference to bulging behaviour. The trick here is not to simply feed things that will increase milk yield, as she will often crucify herself to give you as much as she can. We often find that rumen-protected fats such as Megalac are quite good at providing energy for the cow to use to help her own body rather than produce more milk. Longer chain fats are better, as 'C:16' or half multiples thereof often are used within the cow to boost milk fat production and hence increase the demands on what might be a strained system.

Whilst the majority of silages have turned out well this year, there is some soft and wet stuff around. It's worth being mindful that in order for the cows' rumens to function optimally there is a need for a significant 'scratch-factor' This stimulates the rumen to mix, contract and do its job properly with a healthy population of bugs. The scratching has other effects such as increasing the size of papillae on the inside of the rumen wall.

These papillae can then absorb more volatile fatty acids which the cow uses both for her own energy needs and those of milk production. This papillal development process is initiated in calfhood, with the start of rumen development before weaning. It is also critical to the developing heifer to allow her to develop a large rumen which can support a large dry matter intake in adulthood. The diet of the cow should be spiky to the touch-speak to one of our farm vets or a trusted feed advisor to demonstrate what we mean if you are unsure.

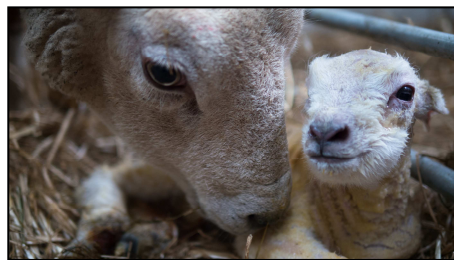
Richard Knight



Navel care in neonates

Depressingly, the beginning of 2023 seems set to continue in much the same as 2022, with shortages of the trusted products we know and love. The latest victim of production and supply issues unfortunately appears to be strong iodine (>7%) for navel dressing. Falling production at a main source in Chile has led to reduced availability and prices are likely to rise according to AHDB sources. This is obviously bad news to get in the run up to lambing given the importance of good navel care in preventing navel and joint ill in young ruminants. So, what should you do?

1. **Source strong iodine early**
2. **Manage ewe body condition and provide good ewe nutrition**



Taking a proactive approach to ewe nutrition and having forage analysed (usually free through your feed rep) will enable us to feed the ewe correctly, balancing her protein and energy requirements, which supports and promotes the birth of healthy, strong lambs as well as good quality colostrum production from the ewe. Strong lambs with a good intake of high quality, clean colostrum soon after birth have a much lower chance of struggling with things such as navel ill, joint ill and watery mouth. Metabolic profiling of early lambing ewes in later pregnancy is an excellent way of checking you're on track to achieving this.

3. Hygiene – cleanliness is key!

Bacteria from the environment gain entry into the neonates' body via the navel. By keeping the environment as clean and dry as possible the build up of bugs in the environment will be lessened and the challenge to the lamb (or calf) will be lower.

4. Use an effective alternative

Navel dressings help to reduce the risk of infections in neonates by disinfecting and drying the navel. Strong iodine is best for this, with lower iodine concentrations (less than 7%) being less effective. When purchasing alternatives it's important to select a product that will dry the navel and has some residual antibacterial activity.

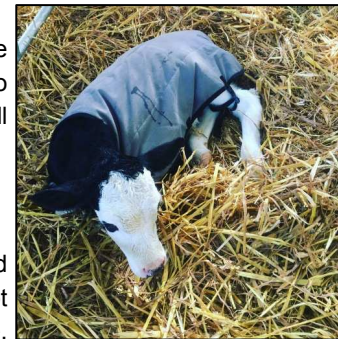
Some suggested alternatives that have shown comparable effectiveness include;

- 4% chlorhexidine and surgical spirit (50:50 mix) (ready mix available at the surgery)
- Vetericyn Super 7 Plus spray/dip

Bethany Collins

Cold Weather and Cattle- What You Need to Know

As the colder months are now upon us, it's important to be aware of how the cold affects cattle and what you can do to help minimise any negative effects. The main issues you'll encounter are:



Hypothermia

The normal body temperature for cattle is 38°C-39°C and cattle have a thermal neutral zone (TNZ)- where they do not have to expend energy to maintain their body temperature.

When air temperatures are below the lower critical temperature (LCT) cattle will experience cold stress and require an increase in the amount of energy required for maintenance, which must come from the animal's own body reserves or greater feed intake. Adult dairy cattle can have a LCT of down to -15°C but it is important to remember that younger calves have a higher LCT, ranging from 13°C at 1 day of age to 6°C. LCT can increase when the cold conditions are also combined with wet weather, from rain or melting snow. Ways to prevent hypothermia include:

- Preventing wind chill- providing shelter to animals outside and limiting wind speed in buildings
- Providing calves with jackets, areas of shelter and extra bedding.
- Increasing feed intake

Cold Stress

Cold stress is the result of cattle having to expend energy to maintain body temperature and normal bodily functions.

Physical signs of cold stress include:

- Shivering
- Roughened hair coats (cows will adapt to cold weather by growing a thicker winter coat)
- Losses of body condition score

Production problems because of cold stress include:

- Loss of milk production
- Reduction in fertility- both heat detection and conception

To combat these effects cattle must be fed a more energy-dense ration or a greater amount of food. Ensuring good feed management is also critical. This means ensuring access to water and plenty of feed space to ensure the increased dry matter intake can be met.

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