Dairy Newsletter

July 2023

CAMPERDOWN VETERINARY CENTRE

CVC CLINIC NEWS

Welcome to the July issue of the dairy newsletter. **First up, we are extremely excited to welcome Oscar Edwards to the CVC family! Congratulations Ness and Spence—we are all smitten with your little addition to the family.**

Our vets have been seeing a large number of milk fever and down cows recently so this issue will focus on identification and management of these cows. If you would like any additional information on these conditions or would like to have a chat about management, as always you are welcome to give the clinic a call and talk with our vets.

Just a reminder, when making appointments, try to be as accurate as possible with the number of cows needing to be seen by a vet. This will allow us to make sure we allocate enough time for the vet to see them all in the same visit. If you need to add a few cows on the morning of your appointment, could you please try to call the clinic so we can make appropriate arrangements on our end to facilitate the additional work.

CVC HOURS

Ph: (03) 5593 1077

Hours:

8:00am – 7:30pm (Mon, Tues, Thurs)

8.00am—5.30pm (Weds, Fri)

9.00am – 12:00pm (Saturday mornings) for routine consults and visits.

Hypocalcaemia (AKA Milk Fever)

Calcium is an essential mineral for bodily function. It is required for muscular contraction, blood coagulation, nerve and immune system function as well as hormone production. Calcium levels need to be kept within a tight range within the blood or clinical disease occurs. Cows have a finely-tuned system to maintain this calcium level while losing large quantities of calcium to a growing foetus and/or milk production. When cows are unable to maintain this calcium level within the correct range, calcium levels can drop and they develop a disease called hypocalcaemia which essentially means “low calcium in the blood”.

Hypocalcaemia most commonly presents in cows around calving time with approximately 75% of cases occurring within 24 hours of giving birth. It is one of the most common diseases occurring in dairy cattle and something we have been treating regularly over the last few months.

Hypocalcaemia can cause illness in up to 10% of cattle but it is likely it occurs without detection in a far larger number than this.

Milk fever is more commonly during good seasons when cows have higher body conditions. Most cases occur in the higher producing, older cows but no cow or heifer is immune.

Classic ‘S’ bend presentation with hypocalcaemia

Clinical Signs

Clinical signs generally include weakness, recumbency, the classic ‘S’ bend in the neck, dry nose that beads up after administering treatment, depression, loss of consciousness and ultimately death. Calcium is required for muscle contraction and therefore cows with hypocalcaemia may also bloat as their gastrointestinal tract can no longer contract normally.

Treatment

Treatment of hypocalcaemia is variable depending on the severity of clinical signs. In mild cases where the cow is still standing and able to walk, farmers will often be able to give a 4 in 1 under the skin, boosting available calcium. However, in severe cases, IV administration of calcium by a vet and a fresh cow drench may be required. It is important to treat cows with hypocalcaemia immediately as deterioration resulting in death can occur quickly.

Subclinical Hypocalcaemia

Subclinical hypocalcaemia occurs in dairy cattle during the first few weeks of lactation. It can result in a decrease in feed intake and pre-disposes your cattle to development of secondary conditions such as a displaced abomasum or uterine prolapse, as well as reduced fertility later in lactation. Therefore, while you may not be seeing the traditional ‘milk fever’ presentation, if you are noticing an increase in these diseases or a reduction in fertility, it is possible you may have a problem with calcium deficiency in your cattle.

Down Cows

A down cow is a cow that is recumbent and unable to stand unassisted. Down cows can be caused by a range disease. We most commonly see them associated with the 4 following categories:

- → Metabolic (hypocalcaemia/ milk fever, hypomagnesemia/ grass tetany, ketosis/ negative energy)
- → Musculoskeletal damage (nerve paralysis, dislocations, fractures, muscle damage, bruising, lameness)
- → Systemic illness (severe mastitis, metritis/ uterus infection)
- → Miscellaneous (abdominal disease, terminal disease, dystocia/ calving difficulties)

When a cow has been down for more than 6 hours the weight of their body presses on the muscle cutting off the blood supply causing damage. Often after 12 hours this muscle damage becomes irreversible therefore, proper nursing of down cows is essential.

Nursing of Down Cows

Correct nursing of the cow is important not only for the welfare of the cow but also for the reputation of the dairy industry. While it is recognised that high-level nursing of down cows can be very labour intensive and time consuming, it is one of the biggest factors which will determine if a cow pulls through or not.

Feed and Water: Food and water should be always available and placed in a manner where the cow can easily reach it.

Location: Location of cow should be somewhere close to the dairy so they can be monitored closely. This allows easier administration of care such as feeding, giving water, sitting up, rolling over etc.

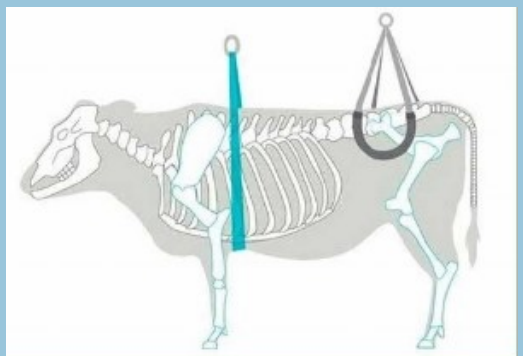
Bedding: Cows should be placed on dry clean bedding and on a comfortable surface such as hay. Aim for cows to not be sitting in mud or water as this can result in secondary infections such as mastitis as well as making it harder for the cow to maintain an appropriate body temperature.

Rolling: It is important to note whether the cow can change the leg she is lying on by herself. The leg underneath the cow has a large amount of pressure placed on it so it is important that this weight is shared equally between the limbs. If a cow cannot re-position herself so that the weight is being placed onto the opposite limb, she must be manually rolled every 3-4 hours. As a rough guide, lift the cow and lower her back down onto 0.5 metres of straw/hay.

Confinement: Where possible down cows should be confined to small areas to prevent crawling. When cows crawl their back legs end up sprawled out behind them and this movement can result in secondary femoral nerve damage. If confined in a small area, they are less likely to crawl and cause this injury. Large hay bales or portable fence panels can discourage forward movement.

Lifting: lifting is one of the best things you can do for down cows however, to be beneficial it must be done correctly. Most of our farmers use hip clamps to lift a cow. These are easily applied to the tuber coxae of the pelvis and then the cow is lifted with a tractor. Hip clamps should be padded around the area which has contact with the cow to minimise damage. They should always be used with caution as overuse can cause serious damage. Often a brisket strap is used to support the chest to make weight distribution more even when lifting with hip clamps.

Another way of assisting down cows to their feet are water flotation tanks. While none of our farmers currently have these that we know of, there is a big push to use these tanks globally. They are a large metal frame that can be filled with warm water. The water then assists in supporting the cow's weight while they recover by using the gas in the cows rumen for buoyancy. Cows are generally left in these devices for 6-12 hours a day. As the cow starts to support her weight more, the water level can be decreased.



Correct placement of hip lifters and brisket strap

Hygiene: mastitis is a high risk for down cows and therefore hygienic conditions should be always maintained. Down cows can be stripped of milk if needed however this will open the teat canal making her more prone to mastitis development. All down cows should have their teats sprayed with iodine/ teat spray regardless of milking.