



Calf Health Post Weaning

Clutha Vets Newsletter for Managers of Young Stock



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Welcome to the third issue of the Clutha Vets young stock newsletter. For this instalment I have decided to take a slightly different direction focusing on one disease in particular that I have seen a lot of in recent weeks. Polioencephalomalacia (PEM) is the over-technical term for the disease and a very long-winded way of saying 'mushy brain'. Vitamin B1 deficiency is a much simpler and more useful name as it gives clues as to the cause of the disease. Calves suffering from PEM/B1 deficiency will commonly show signs including a wobbly gait and blindness, which can progress to death without treatment.

Vitamin B1 Deficiency (PEM)

What causes B1 deficiency?

Calves between the ages of 2 – 7 months old are most at risk after weaning. PEM occurs either when calves go from rough feed onto lush pasture, that is high in carbohydrates, or when they are fed on brassica crops. These conditions allow a temporary over growth of specific bacteria in the rumen that produce thiaminase enzymes. These enzymes then break down vitamin B1 in the gut before the calf can absorb it. The low levels of B1 in the blood cause swelling of their brain, resulting in the 'mushy brain'.

What are the signs to look out for?

Usually only a few calves will be affected in a mob. Signs start off mild but slowly get worse. Early signs may include calves hanging out by themselves in the paddock and eating less. But as the brain continues to swell signs worsen. Eventually progressing through to blindness, a wobbly gait, disorientation, down calves, seizures and death. A post mortem exam can also be used to diagnose by shining UV light on the brain tissue or by sending the brain to the lab for confirmation.



Treatment

Calves treated in the early stages of the disease can show a complete improvement within 24 hours. However, in more severe cases the brain swelling results in seizures and recumbency, significantly reducing their chance of survival. The treatment includes an injectable B1 supplement usually with the addition of a steroid injection. It is possible to do whole mob treatment with an oral drench of B1 powder.

Prevention

- Introduce calves onto good quality pasture slowly.
- Provide roughage such as silage or hay when calves are on lush pasture or crops
- Limit the amount of brassica crops fed to calves
- Drench with a thiamine/B1 containing drench in the risk period

Autumn Lepto vaccination reminder

All calves should have had a sensitiser and booster vaccination for leptospirosis by now. Remember to get them vaccinated a third time in Autumn at the same time that your R2 heifers and milking herd are getting their yearly booster. This will synchronise them with the rest of the animals on the farm to prevent inter-vaccination interval becoming too long in the following year, and make things more convenient for future vaccination.

Remember, vaccination is only one part of protecting your staff, and your stock from Lepto— hygiene in and around the shed also plays a significant role.

