

PRIME TIME FOR GRASS TETANY AND PREGNANCY TOXAEMIA

At this time of year, especially with our current weather and pasture conditions, cattle are at risk of grass tetany while sheep are at risk for pregnancy toxaemia so we thought we would try and explain these problems.

Grass Tetany in Cattle

Causes

Grass tetany (hypomagnesaemia or grass staggers) can arise from a simple deficiency of magnesium in the animal's diet, or from an increase in potassium in the rumen interfering with magnesium absorption. Potassium concentrations increase when cattle graze pastures fertilised with potassium or nitrogen or when the diet is changed from hay or dry feed to lush pasture.

Low levels of blood magnesium are often associated with low levels of blood calcium (hypocalcaemia or milk fever) in late pregnant cows and cows with calves at foot. Cattle grazing grass dominant or young green cereal crops (such as oats) in late autumn and winter are prime candidates for grass tetany. Legumes such as clover and lucerne contain higher concentrations of magnesium and calcium, greatly reducing the risk. Stress events such as weather conditions (e.g. frosts), sudden changes of feed, mustering or transport and the first cycle/oestrus after calving can all contribute to the development of grass tetany, usually due to a reduction in feed intake.

Clinical Signs

Unfortunately dead cows are often the first sign of a grass tetany problem, with froth from the mouth and evidence of muscle spasms before death (rub marks on the ground). Milder or early cases may show twitching of the face and ears, stiff gait and a wary appearance. As the disorder progresses, the cow becomes more excitable, looks to have an uncoordinated gait and may appear blind. Severe cases show galloping, bellowing and staggering before going down on their side and convulsing (legs stiff and paddling backwards and forwards) with signs of respiratory distress. Stimulation of the affected animal should be avoided as this can trigger a rapid worsening of the condition.

Treatment

An intravenous injection of a magnesium and calcium solution (such as "4 in 1", which also contains phosphorus and glucose) offers the best chance of survival (but can kill the animal if given too quickly). Often this will need to be followed by an injection of magnesium under the skin. Unfortunately magnesium supplementation may not always be an effective treatment as the disorder is not always caused by a simple magnesium deficiency. As the old saying goes – prevention is better than cure.

Prevention

To prevent grass tetany, producers must ensure that the feed contains sufficient levels of magnesium and calcium. The most effective way to provide magnesium supplement is to feed hay treated with magnesium oxide (e.g. Causmag®). Vulnerable stock (heavily pregnant and lactating

cows) should be fed legume hay to maintain calcium levels. Less vulnerable stock (such as steers) can be used to graze tetany-prone pastures (but can still fall victim to grass tetany).

Pregnancy Toxaemia in Sheep

Pregnancy toxaemia in sheep (lambing sickness) tends to appear at a similar time of the year to grass tetany in cattle but the cause is very different. Pregnancy toxaemia is due to a shortage of glucose available to a heavily pregnant ewe, as the glucose is siphoned off by the unborn lamb(s). Clinical signs include feed refusal, depression, blindness, ataxia (wobbly gait) progressing to recumbency (lying down). Treatment is most successful in the early stages and involves oral drenches of propylene glycol (to increase glucose production) and subcutaneous injection of “4 in 1”. More advanced cases will require intravenous injections of glucose or “4 in 1” or induction of lambing but often do not respond. As with grass tetany, prevention is the key – make sure pregnant ewes (especially twinners) are on good quality feed, including some grain, and avoid stressful situations such as shearing or transport.

If you are having problems with grass tetany or pregnancy toxaemia, please call the friendly and helpful team at Cowra Veterinary Centre.