The GEORGE Farm Vets

NEWSLETTER– February 2016

Poisoning and Toxicities in Cattle

Although we do not come across that many cases of poisonings and toxicities, they can be very nasty when they occur and can, at times, be difficult to diagnose. This newsletter will cover some of the more common poisonings encountered in cattle.

Clues which may point to a toxicity or poisoning include:

- A recent change in management/ location of animals.
- Lots of animals getting sick at the same time, rather than disease appearing to spread as an infection would tend to do.
- Clinical signs are not typical of an infectious, parasitic or metabolic disease.
- Evidence of access to poisonous materials i.e. plant clippings or a lead battery in the field!

Lead Poisoning

Lead car batteries are a risk.

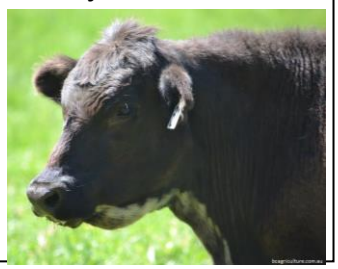
This is one of the most common intoxications seen in cattle. Sources of lead may include old flakey paint, car batteries and old engine oil or plumbing materials. Signs tend to be neurological - cattle may be isolated and depressed but overreact to touch and sound. Blindness and head pressing is also observed. As the disease progresses, animals become distressed and start crashing into things and acting drunk. Signs of colic, such as kicking at the abdomen, may also be observed.

Treatment is via an intravenous injection of lead chelating agents and sadly is often unrewarding in animals with pronounced nervous signs. Euthanasia may be required in severe cases.

Ragwort Poisoning

This can be due to ragwort on pasture or, more commonly, in forages. It presents as liver disease and tends to be a chronic condition with signs of weight loss, diarrhoea, jaundice and fluid under the jaw ('bottle jaw'). Diagnosis can be difficult as the intoxication is so insidious, however on post mortem the liver will appear grey, mottled, fibrous and shrunken. There is no treatment once clinical signs occur.

Bottle jaw



Yew Poisoning

A very nasty toxicity, generally presenting as sudden death. The yew is a severe cardiac depressant so essentially just stops the heart!

Yew leaves and berries.

As a commonly known toxic plant, yew poisoning tends to be accidental, due to plant clippings being tipped into a field for example. Diagnosis is usually discovery of leaves/ twigs in the rumen post mortem. Often the yew leaves are even found in the animal's mouth as death is so quick.

Bracken Poisoning

Cattle tend to be reluctant to eat bracken unless they are short of other sources of food, so disease only tends to be seen after a long period in the same field. Occasionally, acute disease can occur due to bone marrow suppression. This may present as high temperatures or pneumonia due to secondary bacterial infection, or bleeding due to lack of clotting factors. In chronic cases, bladder tumors can occur, which are seen as difficulty urinating or blood in the

urine. Treatment is limited so keeping cattle away from bracken is the best bet. If this is not possible then provide plenty of alternative feed so cattle will not be tempted to snack on bracken!

Oak Poisoning

As you would imagine, this is most commonly seen in autumn, particularly after stormy or windy weather. Both the leaves and the acorns are poisonous. Sudden death may be seen (in which case an anthrax enquiry needs to be carried out.) However, oak poisoning usually presents as anorexia, depression and bloating. This is due to rumen stasis. Constipation also occurs, which progresses to dark tarry diarrhoea, often with blood. Straining may be seen. Animals deteriorate and become weaker and weaker before collapsing and dying after 4-7 days. Death is due to kidney failure. Again, there is no specific treatment. Supportive care such as fluids can be provided but there may be long term kidney damage.

Bloating due to rumen

Copper Toxicity

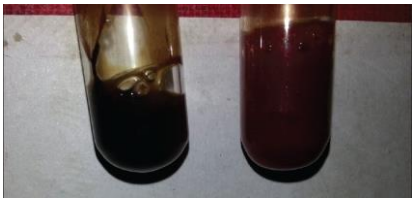
This is generally related to an excess of copper in the diet. It is more common in sheep, but can occur in cattle. Acute toxicity is rare in cattle but if it occurs it causes severe gastro-enteritis with colic signs, diarrhoea and rapid dehydration. Death occurs within a few days.

Chronic toxicity is much more common, due to over supplementation. Animals become weak, dull and depressed, and separate from the group. They also stop eating, and may show jaundice. Disease causes destruction of red blood cells so signs are related to this.

Treatment can be attempted using ammonium tetrathiomolydate, however it is not licensed for use in food producing animals, so use requires veterinary involvement. Obviously, it is important to remove the rest of the herd from the source of copper.

If copper deficiency is suspected, it is vital to blood sample animals prior to supplementation to avoid causing over dose toxicity.

Nitrate/Nitrite Poisoning



Chocolate brown vs normal blood

Most commonly caused by Brassica plants and fertilizers- surface run off from fertilized fields, or contamination of feeds with fertilizer can be a cause. Nitrate poisoning is generally an acute problem, and leads to cyanosis (pale/ blue mucous membranes) and shortness of breath. The animal's heart will also be rapid and weak. Depending on the amount of nitrates consumed, death may occur within one hour or one day. On post mortem, the blood appears a chocolate brown colour. This is because nitrates convert haemoglobin in the blood to methaemoglobin, which is unable to bind oxygen, similar to carbon monoxide poisoning. If nitrate poisoning is suspected, animals should immediately be removed from the source of nitrates. Methylene blue given I/V is the antidote to the poisoning. Tom had a case a few months ago, and found that a few animals did respond to treatment.

Don't forget that all cases of sudden death should be reported to DEFRA so that they can assess if an Anthrax investigation needs to be carried out.

Whilst many of the poisons mentioned are difficult to treat in severely affected cows I hope you will now have a better idea of what signs to look out for and what things to keep well away from your stock!

Thanks very much, Sarah.

Halocur: Now available in a larger pack size. You can buy 980 ml bottles in addition to the existing 480 ml packs. Contact the practice for more information

For Sale: 2 x Pedigree Beef Shorthorn Bulls. 16 & 17 months old. Both quiet, one shown successfully last year. Tested negative for BVD & IBR. Progeny eligible for Morrisons Premium scheme. Sensibly priced, contact Fran on 0774416534 if interested.