

August 2024 Newsletter

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Penbode
Farm Vets Since 1840



OUR AUGUST 2024 COURSES DATES



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Farm Vets Since 1840

Wednesday 7th August 2024

Sheep and Beef Meeting at The Wilsey Down, PL32 9SH.

6:30pm Growing Lambs Talk

8:15pm Infectious Disease Control in Beef Herds.

With a pasty supper provided by **Boehringer** in between.

Clients can join us for both talks or just one half of the meeting. Free for FHC/Beef Club members or £5pp for non members.

Thursday 13th August 2024

Youngstock Farm Walk and Discussion, by kind permission of the Haworth family of Newlands, EX23 9PT
10am – 2pm

Free for clients to attend, booking essential. Pasty lunch provided by **Virbac**.

Thursday 29th August 2024

Autumn Block Calving Farm Walk and Discussion with a focus on dry cow management and youngstock, by kind permission of Sainsbury of Trillacott,
free to attend. Pasty lunch kindly provided by **Zoetis**

Please call your local branch to book your place on any of our courses.

POISONING IN FARM ANIMALS

By Amy Smyth
BVetMed MRCVS



In the summer time we tend to see an increasing number of cases of **"toxicosis"** (or poisoning). Perhaps this is due to hedgerow species flourishing at the same time as grass growth diminishes, making animals more likely to browse areas that toxic plants might grow. That being said, most of these plants are very unpalatable, and often bitter-tasting. Under normal conditions, livestock species will generally not eat these plants if there is plenty of readily available forage!

This article should not serve as an exhaustive list but is here to help you spot the most common perpetrators and make them less accessible by your stock! It is also good to be able to recognise the common signs of poisoning so that we can act quickly to reduce exposure to the rest of your herd or flock, and provide the most appropriate treatment as quickly as possible to any affected animals. We will outline here some of the main toxins which can cause disease in animals, and the plants in which they tend to be found.

Alkaloids:

Found in yew, laburnum, hemlock and lupins.

They have a similar chemical structure to neurotransmitters – these are chemicals in the body which allow electrical impulses to travel through the nervous system.

As such, we mainly see neurological signs – salivating excessively, the pupils of the eyes not responding to light (being fixed either small or large in size), ataxia (a wobbly, uncoordinated gait), convulsions and coma. You might also see colicky signs or vomiting depending on the species of animal involved.

Glycosides:

There are different forms of these chemicals, which are widely distributed through plants. The different types affect different organ systems of the body. Some affect oxygen usage by the cells of the body, causing difficulty breathing, convulsions and muscle tremors. The main plants responsible for this are Linseed and Cherry Laurel. If pregnant ewes are exposed to these toxins for a long period of time you may see a goiter (enlarged thyroid glands) in the lambs born.

Other glycosides can affect the thyroid and iodine uptake – the main plants involved are Brassica crops and white clover. The signs here again involve a goitre (enlarged thyroid), reduction in daily liveweight gain, diarrhoea and blindness.

Some glycosides affect the heart – in particular Foxgloves, Lily-of-the-Valley and Oleander. These can make the heart contract harder and more slowly, giving clinical signs of depression, regurgitation and diarrhoea. Affected animals often die within a day of ingesting the toxin.

Other glycosides are called saponins (which means they act like soap). An example of this is common ivy. This chemical causes a purgative effect, leading to vomiting and inflammation of the stomach lining. As such, be careful with feeding large quantities of Ivy! Sometimes people have been known to feed Ivy as a last ditch attempt to get a sheep to eat when they have a very low appetite – be very careful with this practise as it could end up causing more harm than good!

Nitrates:

Depending on weather conditions and time of year, these can be found accumulating in soil, plant species like clovers and brassica crops, and in nitrogenous fertilisers.

If large quantities are eaten you may see signs of stomach irritation. Nitrates are then converted into nitrites in the rumen, which are much more dangerous, causing laboured breathing, muscle tremors and weakness, and death.

Oxalates:

Most plants contain some oxalates, though some have much higher concentrations than others (especially sugar beet, rhubarb and sorrel). Gut microbes in the rumen can adapt to high levels in the feed and break them down into harmless components.

Animals may show signs of milk fever and damage to the lungs and kidneys.

Tannins:

You might have heard of tannins if you're interested in wine tasting or drinking tea – these are the compounds that can make your mouth feel a bit dry and tacky after you have a mouthful of red wine! They are also found in all parts of the oak tree, but especially in unripe acorns. For some reason, certain individual animals seem to get a real taste for these and can gorge themselves. Unfortunately they are broken down in the gut into toxic compounds which can cause damage to the kidneys.

The main signs of poisoning by tannins are dullness, refusal to eat, constipation at first, followed by a profuse and dark diarrhoea, and the animal may no longer urinate or have very dark urine.

Bracken:

There are a few different toxins in bracken, so it has its own section! Generally speaking, the entire plant is toxic but young plants are the most poisonous, and become toxic when they are consumed over a long time. Damage mainly occurs to the wall of the bladder, and the animal becomes anaemic. The signs of poisoning are dullness and diarrhoea, and signs of internal bleeding – into the urine, from the nose and other orifices.

Rhododendron:

Another plant causing neurological signs, we especially see signs of toxicosis in goats, and the plant is usually pretty well known by goat keepers as one to avoid in the garden! It causes low blood pressure and breathing difficulties, and the main clinical signs are that the animal drools, has green froth around the mouth, abdominal pain and vomiting; progressing to convulsions, breathing difficulties and often death.

Yew:

As mentioned above in the Alkaloid section - these trees are often found in churchyards, and all parts of the plant are poisonous. Be aware of dumped hedge clippings and fallen branches! Yew affects the heart and causes sudden death.

Photosensitisation:

In addition to the signs seen above, most of us have seen animals experiencing signs of extreme sunburn, which we usually say is down to them “having eaten something”. This is called “photosensitisation”, which means that the skin (usually the paler patches of skin which lack protective melanin) has become extra sensitive to the sun.

This happens because chemicals in the plant, or chemicals produced when certain plants are broken down in the stomach collect under the skin and react with the sunlight, causing necrosis (or death) of the skin cells.

The most common culprits are St John’s Wort and buckwheat, but even Chlorophyll (the green pigment in plants) can cause this, so be aware when moving animals suddenly from poor to very lush pasture. Ragwort and Bog Asphodel also cause sunburn signs and liver damage because the photosensitising compounds are produced when the plants are broken down by the liver.



Animals affected will have areas of burnt skin, especially around the face (particularly the eyelids and ears), on unpigmented (pale) areas and unfleeced areas. These animals have lost the ability to cope with sun damage and so should be housed until the lesions heal (this can take up to a month). It can be painful for the animal so anti-inflammatories should be considered.

I hope this article, although quite wordy, will help you spot possible poisons that might be present on your farm. If you are worried that you might have some of these present on your farm, there’s no need to panic! Just try to reduce the risk of ingestion by fencing off risky areas, gradually introducing new food sources and promptly investigating any sicknesses or deaths in your herd or flock. Some of these plants are concentration dependant, meaning that they are only toxic after a prolonged period of ingestion or by the animal gorging on huge quantities, whereas some can be fatal even in small doses. If you are worried about anything specific, please give us a call to discuss it, or feel free to send us photos of possible toxic plants and we will do our best to help you identify it (or point you in the right direction for expert information).

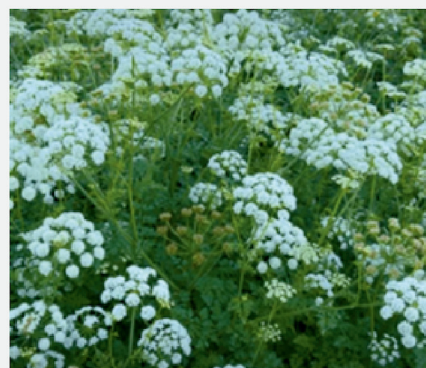
There are of course other sources of poisons apart from plants, and other causes of illness and sudden deaths, so always call us for advice to investigate these if you need.

It's worth noting that any and all sudden deaths should be reported to us and the ministry for an Anthrax Investigation to be carried out. This involves us coming out to your farm to take a couple of quick samples from the carcase (the visit is paid for by the ministry). Whilst we cannot carry out a post mortem exam until Anthrax is ruled out back at the practice lab, we can have a look at the carcase for any obvious signs of a cause of death (for example a hemlock root in the mouth, or identify poisonous plants in your hedgerow).

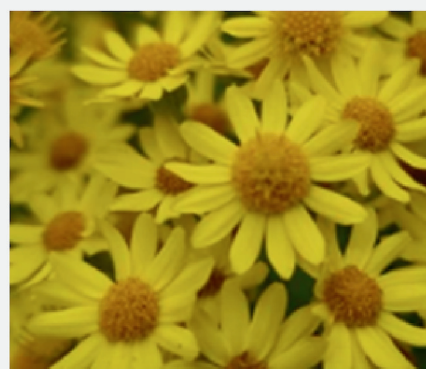
If you are concerned about any of the issues raised in this article, please do call us at your local branch. We are always here to lend an ear and provide our advice!

Plant ID Card:

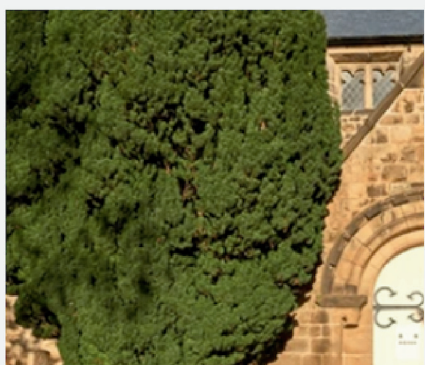
Hemlock



Ragwort



Yew



Rhododendron



Bracken



Foxglove



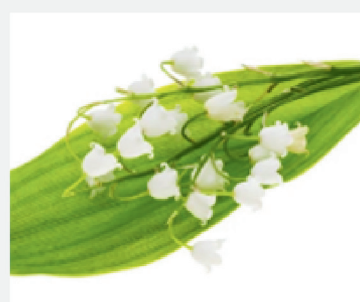
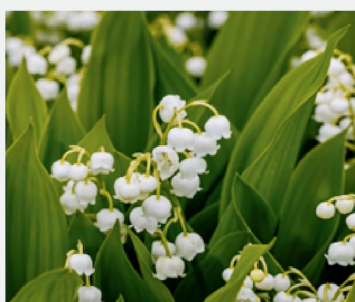
Oak



Bog Asphodel



Lily-of-the-Valley





BRISTOL VET STUDENTS AT PENBODE

The University of Bristol are sending final year vet students down to Cornwall/ Devon for a rotation placements with the Penbode Farm Vets so you may see a few new faces on your farm visits over the coming months. We're Holly and Georgina, 2 final year students and this is what we got up to during our time at Penbode.

Week 1:

We drove down from Bristol on Sunday and arrived at the 'Penbode Abode', a four-bed house in Stratton that Penbode and the university have provided for students. We then immediately found the beach bar and the fish and chips. The next morning we dug out our wellies and waterproofs and hit the road. We had a great week being driven around in the sunshine practicing skills such as injecting, disbudding, castrating and operating a cattle crush without losing a finger. The high number of dairy farms in the area provided a great opportunity to get our hands (and arms) dirty and practice our pregnancy diagnosis skills.



Week 2:

After a busy weekend of surfing, exploring and attempting to reverse down single-track roads we returned to Penbode slightly sunburnt and ready for another week. This week included a calving, some alpaca chasing, some micropigs and a trip down to Truro for a calf health meeting. We also tried dehorning for the first time, which burned our biceps almost as much as the cow's horns. We managed to complete several "Mini Clinical Evaluation Exercises" or "Mini-Cex" where the vets sign us off on tasks including physical exams, prescribing drugs and taking blood samples. After another great week, we said our goodbyes to the team and headed back to Bristol feeling slightly more ready to be real vets than when we arrived. A huge thank you to all the Penbode staff and all the farmers we met for letting us get involved. We're looking forward to coming back in October to spend some time with the small animal vets.

Penbode are proud to partner with University of Bristol to help train the next generation of vets. Thank you to all of our clients for being welcoming and supportive.

Penbode Vets

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