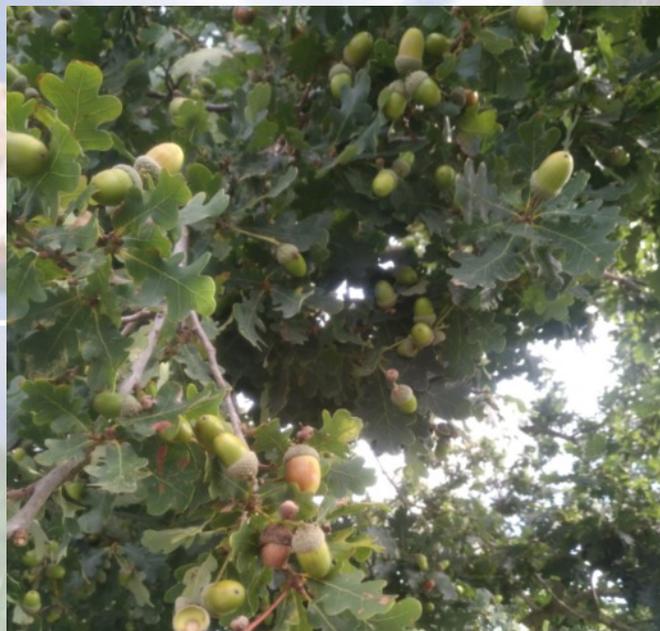


Acorn poisoning

Acorns can present a serious problem on pastures with oak trees after autumn storms. Some cattle find acorns surprisingly palatable and may eat significant quantities. Tannins in the acorns cause serious, often fatal, kidney damage.

Sudden deaths may occur but anorexia, depression and bloat due to ruminal stasis are more common signs. Initially there is constipation and associated straining progressing rapidly to foetid tarry diarrhoea. Death follows within 4-7 days despite supportive treatment.

Consider removing cattle from pasture with oak trees around autumn storms, or temporarily fencing off access.



Toxovax

A quick reminder that the Toxovax production window comes to an end in the middle of this month. The vaccine needs to be given at least 3 weeks before tupping, and is proven to last for a minimum of 2 mating seasons.

Toxoplasma is a parasite which is a common cause of abortion in ewes. The definitive host is the cat, but it is generally only young kittens which shed significant numbers of the parasite.

Preventive measures involve keeping feed-stores secure (sheep nuts have a remarkable similarity to cat litter!) There is no need to get rid of farm cats, they generally do a good job of keeping down vermin, just make sure farm cats are neutered.

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Colostrum management

We all know that getting enough colostrum into calves is really important for a calf to thrive, and we've been talking about **10% bodyweight within 2 hours of birth** for some time, but ever wondered why? In cows, unlike many other animals, the dam's blood supply and that of the calf do not allow immune factors such as antibodies to pass across, meaning that the newborn calf is highly vulnerable to infection. Colostrum provides not only nutrition, but also the antibodies needed to fight off specific infections, and some non-specific immune factors.

The colostrum produced in the first 24 hours after calving is significantly different in terms of its composition to that of milk, having about double the total milk solids, and nearly 100 times the amount of antibodies. It gradually changes over the next couple of days so that by day 4 it is classed as normal milk.

Research shows that 100-200g of antibodies need to be taken in by a newborn calf to acquire the necessary immunity for a good start, which in dairy cattle equates to between 4 and 6 litres of *good* quality colostrum. In reality, quality can vary considerably from cow to cow with beef breeds generally having much better colostrum than dairy breeds due to genetic and dilution factors. Older cows are also generally better, but the difference is small. Cows that are ill for any reason around calving, especially due to mastitis will have much poorer colostrum.

It is also worth noting that any bacteria in the colostrum will "mop up" the precious antibodies, and these bacteria will double every 20 minutes. Pasturisation will reduce the bacteria, but it will still need to be chilled or frozen if you need to store it. **Colostrum should always be harvested and fed in the cleanest possible way** - you should produce, store and feed it as if it were going to be used for human consumption!

A simple guide to quality is to use a colostrometer or refractometer. They measure specific gravity of the colostrum and can be used to select the best colostrum from a group of cows if surplus is available for storage, or give an indication if supplementation or replacement is required.

Timing of colostrum intake is also critical. When a calf is new born, the gut is relatively leaky, and allows antibodies to pass across into the calf's bloodstream. The ability to absorb antibodies rapidly decreases, however, so that by 24 hours old this ability is all but lost. Antibodies can still have a useful local role in the gut itself, but cannot be stored in the bloodstream for later use. Left to their own devices, most dairy calves are unlikely to take enough colostrum in the required time, so assisted feeding or a bag feeder are usually needed. Calves with acidosis, associated with difficult calvings, are even worse at taking enough colostrum and need to be singled out for special attention.

So how can you tell if you're getting colostrum management right? Apart from the obvious higher than expected calf illnesses and deaths, we can take blood samples from calves between 1 and 7 days old and objectively measure transfer of immunity. Give us a call if you'd like to know more!

