

ISSUE 86 Summer 2024

Livestock NEWS

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ACHIEVING EXCELLENCE IN HEALTH AND PRODUCTIVITY

Urolithiasis (Urinary Obstruction / Bladder Stones) In Goats

Urolithiasis is a condition in which small calculi, often referred to as 'stones' or 'crystals', form in the urinary tract of goats and is closely linked to the diet. These small stones form in the urinary system, usually within the kidneys and bladder, and are excreted in the urine. Male goats, and particularly those that have been castrated whilst very young, have much narrower urethra (the tube that empties the bladder), and the stones can become trapped and block normal urine output.

The urinary calculi or stones are precipitates of minerals. In goats the stones are usually phosphate salts, especially calcium phosphate; or struvite (magnesium ammonium phosphate hexahydrate).



Goats with urolithiasis will often strain to urinate and vocalise with pain. They sometimes try to kick their abdomens and often arch their backs upwards before crouching. Male goats will also often have dried crystals around the urethral opening or on the hairs of the prepuce. As the pressure builds from the blockage, if

undetected, it will eventually rupture the urethra and/or the bladder, and the goat will rapidly deteriorate and die.

Preventing urolithiasis has a lot to do with our management and husbandry of goats and in particular how much water they drink and the feeds that they eat – goats with a low daily water intake and high concentrate feeds / low forage intakes are at much high risk of stone formation.

Goats can be “fussy” when it comes to water and food – it is essential that their water is always fresh and clean, and that wasted food is removed and replaced daily to ensure they get what they need.

Diet is also really important as it is essentially an excess of dietary magnesium, potassium and phosphorus that results in increased urinary excretion of these elements. These can then combine with urinary ammonium to precipitate into insoluble crystals.



By Ben Dustan



We also know that goats on a low fibre diet don't produce as much saliva, which is naturally high in sodium bicarbonate and phosphorus, so are more susceptible to acidic stomach conditions which can predispose to these crystal formations as well as other dietary complications such as acidosis.



Treatment for urinary obstructions should be undertaken by a vet and if you suspect your goat has urolithiasis it should be seen as soon as possible because the sooner treatment can begin the greater the chances of breaking down the stones to enable the goat to pass them. If it is a partial blockage your vet may be able to remove the obstruction using spasmolytic and muscle relaxant drugs. We can also alter feed and water

management to ensure stones are not being formed, and to help break down stones that exist. This is often by increasing the amount forage fed, particularly hay; ensuring clean water intake is maintained and by adding ammonium chloride that helps to chemically breakdown many common stones. If the obstruction is complete and the goat cannot pass any urine then surgery becomes necessary. However in the case of a full obstruction and possible rupture (urethra and / or bladder) treatment is often disappointing and your vet may well have to advise euthanasia on welfare grounds.

Bird Flu outbreak in Dairy cattle

Since this March numerous cases of highly pathogenic avian influenza (HPAI) (or H5N1 Bird Flu) have been confirmed in dairy cattle in the USA. The virus has most likely been circulating in cows since early December of last year, when it passed from wild birds to a single herd of cattle in Texas. Further cases in new areas are thought to have occurred as a result of cattle movements between herds.



By Victor Oudhuis



Up to early June, 81 herds had been affected in 9 states. While rare, mammals can be infected with HPAI, but these tend to be single cases linked to direct exposure of infected birds. This case is unusual due to the fact that infection has continued to spread among cows. Although very severe in birds, symptoms in cattle seem to be mild, with affected animals showing reduced appetite, reduced milk production and abnormal appearance of the milk (thickened or discoloured), it has for the first time globally spread from cows to humans (and other mammals).



HN51 Human Infections between 06/01/2024 and 06/06/2024 in USA

Human infections with HPAI are sporadic, and have not yet gained the ability to spread directly between people, but have got a very high mortality rate (>50 %). Fortunately, the current strain has only given mild respiratory symptoms and eye redness (pink eye) in several infected farm workers that had been in close contact with cattle.

The virus in the current outbreak seems to have a specific affinity for the cow's udder, resulting in very high numbers of virus particles being excreted with the milk. Infected cows could be shedding the virus for up to 2-3 weeks. We are not entirely sure of how the virus is spreading between cows, but scientists suspect it is being spread during the milking process, either through contact with infected equipment or with virus that becomes aerosolized during cleaning procedures. For obvious reasons, unpasteurised milk would be a high risk to public health and other milk products, for example freeze dried milk powder (which is exported), are currently under investigation. Farmers in the US are advised to avoid drinking "raw milk" and increase biosecurity measures, especially with regards to cattle movements, as these have been implicated in some of the spread. With regards to public health, pasteurised milk and meat products that have been properly cooked are considered very low risk.

Currently there is nothing to suggest the virus has changed to make it more transmissible to humans. However, if it would become established in cattle that risk may increase. The more people that are exposed to animal influenza viruses, the higher the risk of animal influenza virus strains mixing with human strains and creating a new strain of virus, which could be more transmissible between people. Although influenza viruses in humans and animals are very similar, people would have very little or no immunity against this new strain, potentially causing the next Pandemic.

The US and Europe are already in the process of increasing vaccine stocks in order to vaccinate farm workers, if this would become necessary, as a way to reduce the possibility of HPAI crossing over into the human population. A cattle influenza vaccine might also be considered.

At the moment there is no reason to suspect that this particular US strain of HPAI is circulating in the UK/European cattle population, or the bird population for that matter, so current risk levels of infection are low. However, the current US strain originally came over from Europe in 2021, so we cannot rule out that it crosses the Atlantic in the opposite direction...

Water, water everywhere.....

Well thank goodness it has been a bit warmer and drier over the last couple of daysso next thing we'll be expecting is a drought!

Water is obviously one of the most fundamental requirements for all animals but particularly for dairy cows as they need 4-4.5 litres of water for every litre of milk production. Unfortunately it's not always as simple as providing a trough and hoping everyone has a drink. A few factors to consider are –



By Anne Abbs

- Water supply. Can the supply keep up with demand, particularly if it is borehole fed? Check the pump is working, all the connections are secure and the ballcock works correctly. Water overflow or leaking pipes can lead to wet beds or wet, paddled ground outside which can lead to a coccidiosis risk in



youngstock. Don't forget calves and make sure that they have access to cleanwater from day 1, either by putting water in their milk bucket after they have fed or with a separate water bucket/trough. A 50kg calf needs a minimum of 2.5 litres of water daily to supply their basic metabolic needs, if there is any stress such as scour or hot weather this can easily double . 4 litres of milk supplies about 3.5 litres so it is barely adequate and increased fluid intake will encourage intake of calf pellets or mix.

- Access to water. Can the cattle get access to the water? Make sure that cattle that are outside don't have to walk excessive distances to get to troughs. Inside there can be competition with bully animals blocking troughs and preventing less pushy animals from getting to water. Provide at least 2 troughs for each group of cows if possible and ensure there is an absolute minimum of 10cm trough space for every cow. If numbers of cows in each group varies then go for the maximum rather than average. Cows that are sick or lame are less likely to walk to access resources so they need ready access to water.
- Water quality. This is unlikely to be an issue for mains water but long storage in header tanks or open tanks that birds can gain access to can lead to bacterial growth. Mineral levels and pH in borehole water can be an issue and is worth checking regularly as excessive levels can lead to a reduction in palatability. Don't neglect the water in troughs as bacteria and algae can build up if troughs aren't cleaned regularly. If replacing troughs consider tipping troughs that allow regular emptying and refilling.
- Water as a disease transmitter. Water can easily be contaminated and transmit disease between animals. TB can survive in water for 20-60 days so consider protecting water troughs from badgers and neighbouring cattle to reduce risk.



Beef fertility

The two main measurements of suckler herd fertility are getting the most cows in calf each year, in a shorter space of time. Cows that calve late, or not at all, present a considerable economic loss. Those that calve later each year will eventually miss a year entirely, with a barren cow costing on average £2 per day to keep, that's around £720 a year!



By Graeme Hutchison

Calves born later in the year will be smaller and face increased disease challenges from the bugs that have built up through the calving period. While more calves may be reared by extending the calving period this will lead to retention of poorer cows with poorer fertility. One of the main benefits of calving early is it allows the cow longer to return to her normal fertility cycle and therefore much more likely to hold to service when the time comes. Tight calving patterns also give replacement heifers sufficient time to achieve target bulling weight. Studies have shown herds with a relatively tight calving patterns are getting on average £49 more for calves sold store, and the top herds with best calving patterns are getting £100 more!



Below are some targets for suckler herd fertility:

- 95% cows and heifers calving that have been put to the bull
- 65% calving in the first 3 weeks
- 9 week bulling period for cows and 6 weeks for heifers
- Calf mortality birth to weaning – less than 3%
- Calves reared to cows and heifers bulled – 94%
- Replacement rate – less than 15%

If you have any concerns with the fertility of your herd in the past few years it may be worth looking into the following:

- Bull fertility - 1 in 2 bulls have been shown to be sub-fertile at any time. Having a back up bull or a plan B can save a disaster
- Nutrition – Knowing the mineral status of your herd and frequent body condition scoring will help spot problems before it's too late
- Infectious diseases – in particular BVD, Johne's and campylobacter.

We recommend fertility testing bulls 4 weeks before intended work to allow time to source alternatives if issues arise, it also provides a good opportunity to check the bulls feet and body condition score, two of the most common causes of poor fertility. There are many herd health schemes out there to help herds tackle infectious diseases and become accredited.

Pregnancy scanning your cows and heifers allows you to identify problem cows early. If scanned early enough we may be able to intervene to allow another chance with the bull before the window closes. Or if the problems are irrecoverable then identifying these early and marking the cow for culling will save time and money in the long run instead of wintering these empty cows.



Training Courses

Mastering Medicines
DIY AI & Cattle Fertility
Foot Trimming

Please contact one of the practices to register your interest or request further information.



Annual Teaser Tup Day

- Thursday 4th July 2024 at Townhead Veterinary Centre, Newbiggin.
- Discounted Rates.
- If you are interested, please call the Newbiggin practice.



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