



Borehole water mineral effects on pigs

The use of borehole water is increasing as an effective way to reduce overheads. From 1st October 2017, it will be a Red Tractor requirement to test borehole water quality annually to maintain conformance however there are currently no guidelines on the level this quality has to be for animal consumption.

The move away from mains means water quality and mineral content can vary greatly from year to year depending on the weather. Pigs will always prefer clean water and a lack of clean water has a knock-on effect on feed intake and therefore FCR. Lack of consistent water supply has also been associated with increased vices such as tail biting and increased gastric ulceration and twisted gut. This is why holding tanks are necessary where boreholes are used to ensure there is enough reserve at busy drinking times to cope with the water requirements.

The mineral levels in borehole water can also have a noticeable effect on the pigs.

- ⌚ Calcium and Magnesium cause limescale build up in pipes which allows bacteria and viruses to collect and form biofilms. Hard water also reduces the effectiveness of any detergents used
- ⌚ Sodium in high levels is very toxic to pigs – be careful where boreholes are close to the coast!
- ⌚ Sulphates (such as calcium sulphate) have a laxative effect on pigs and can cause a looseness. The pigs usually adjust to this after around a fortnight and the looseness is not thought to affect production as the sulphate works on the large intestine while most nutrients are digested in the small intestine however increased bedding levels will be needed as the pigs will be dirtier
- ⌚ High iron levels increases the growth of coliform bacteria e.g. E coli. There

is likely to be an orange slimy substance form at nipple drinkers which can block them and there is an increased risk of biofilms forming

- ⌚ Certain minerals also inactivate certain in-water antibiotics

All of these factors show the importance of knowing your mineral levels in your borehole and the levels can vary massively across the UK, depending on soil type etc.

pH also affects which products can be used to clean water pipes. For example, chlorine is inactivated in alkaline water and acid-resistant slimes can build up if an acid is used for long periods. For this reason, it is recommended that the cleaning product used in the water lines is rotated.

If you would like your water testing for both bacterial levels and mineral levels, please contact your borehole supplier or the vets at Garth on 01262 488323. The vets at Garth can also interpret your most recent test results and help you make informed choices on when to clean pipes and what product to use.

Topical Talk – PRRS PCR

One of the most exciting diagnostic technologies to emerge in recent years is Polymerase Chain Reaction (PCR). This takes small amounts of genetic material (DNA/RNA) and amplifies this up by a series of multiplication cycles to a detectable level. The number of cycles gives an indication of the original load in the sample.

This technology is frequently used for diagnosis of viruses and identification of bacteria in samples e.g. Swine Influenza and PRRS (as well as featuring on CSI and other crime shows!).

Biobest, Origin group laboratories, are now able to deliver in house PCR testing for PRRS on bloods, semen, tissue and oral fluids without having to send these samples out of house.

Tooth grinding – why, how and what?

Some people have been grinding for years, are converted and wouldn't consider doing anything else. Others are not so convinced for a variety of reasons, so why should you be considering grinding over clipping?

- ⌚ Reduces pain from splintered teeth.
- ⌚ Reduces the potential of infection through the pulp cavity (that cause joint-ill and meningitis).
- ⌚ Removes the sharp points but allows teeth to still be used to latch on to the teat.

So how do you grind? In practice, it doesn't greatly differ from clipping:

- ⌚ Hold the pig over the back of the neck (from head to shoulders) and use the fingers to gently open the mouth (if not already open).



- ⌚ Good light is useful to properly visualise the teeth.
- ⌚ Most grinders have a grinding wheel surrounded by a casing with grooves in opposite sides so you can grind upper and lower teeth without rotating the machine.
- ⌚ Only the sharp points need to be removed – **do not grind down to gum level**. Rolling the grinder from front to back or vice-versa over the tip of the tooth should remove the point without creating another sharp edge.
- ⌚ It should take no more than a second or two to deal with each tooth.

So, what's on offer? After a visit to ERFS to suss them out, here's a brief overview:

- ⌚ Rechargeable cordless – ideal if you think having a wire will impede you. Quite bulky because the battery has to fit inside it.



- ⌚ Battery powered – the battery plugs into the grinder and can be worn or laid to one side however the user prefers. More slimline and lightweight as only the motor is contained within the casing.



- ⌚ Mains powered – Good for if you have lots of piglets to process at one time. It requires a power socket to be located near to where piglets are being processed and could be more ergonomically designed considering it only needs to contain the motor.



Before



After