**Newsletter October 2017 – Bull semen testing**

America and Australia are ahead of us when it comes to bull management and fertility with routine bull soundness examinations being commonplace. This is most easily illustrated by the amount of trust most farmers put in their bulls. How often do you just put a bull in with a small number of cows to check he’s working, or swap bulls half way through the breeding season just in case one wasn’t working? How many have had delayed calving periods because of a problem with a bull?

 A fertile bull should be expected to serve ‘90% of 50 normally cycling, disease free cows within 9 weeks’. This is seen as a minimum standard in North America with many bulls doing much better. Here the rule has generally been that a bull should be mated to 35 cows. This isn’t because most can’t do more, it’s simply due to the fact that subfertility is seen to be very prevalent (various worldwide surveys suggest that 1 in 5 bulls are subfertile.)

 Breeding soundness exams can help reduce this inefficiency and provide piece of mind where there is doubt about a bull. Historically there were some problems with electro-ejaculation. It tended to stimulate more than just the reproductive organs. However new designs and better techniques have meant that electro-ejaculation has become a widely used and routine procedure which can be carried out quickly and with minimal stress to both you and the bull.

 There are a variety of problems with bulls picked up on routine tests. They include warts (viral papillomatosis), and a persistent penile frenulum - where the bull is born with the end of the penis attached to the surrounding prepuce, so cannot extrude the penis properly. You can also get deviation of the penis: corkscrew or spiral, a ruptured penis, or rings of hair can get stuck around it and cause necrosis or damage. Tearing or laceration can occur in working bulls and they can get testicular and prostatic infections or degeneration, leading to sperm defects that can be seen under the microscope.

 We are now doing bull semen testing on a regular basis and can help where you are having a problem.

 There are of course many other causes of infertility relating to the cows. The most common of these would be a slow return to cyclicity after calving due to a variety of problems including poor nutrition (over or under conditioning), difficult calvings leading to tears, retained foetal membranes and metritis. There are also some infectious and mineral related problems that can be diagnosed with veterinary investigation and blood samples. Please do talk to us if you are having problems with fertility.

Pneumonia: the causes:

Pneumonia season is just round the corner so we though it was time for a wee reminder. Although this has been a problem for as long as people have housed cattle, testing is becoming more sophisticated and there are now a wide range of vaccines out there that can help minimise the effects of an outbreak. There is an overview of the common vaccines we provide at the end of this article.

The 3 main bacterial causes of pneumonia are *Mannheimia haemolytica (serotype1), Pasteurella multocida,* and *Histophilus somni.* They can be found in normal healthy animals so don’t always cause a problem. However in a severe outbreak they take advantage of already damaged lungs, multiply fast and spread readily between cattle in close proximity and in certain cases can kill an animal fast too. All commonly used pneumonia antibiotics should be able to treat these, so long as they havn’t had too much time to take hold.

Viral infections which usually initiate an outbreak of pneumonia, can be severe, and may be fatal as well but can also (especially where vaccines are used) go completely unnoticed.

In the case of chronic pneumonia that has been ongoing for at least 3/4 weeks, there can then be formation of bacterial abscesses, which the body will wall off, but will never really cure. Often one of the above bacteria can return in an already heavily abscessed lung, and finish an animal off fairly quickly. These may look like sudden cases of pneumonia but are not, and the initiating cause is usually long gone.

Prevention / management of a pneumonia outbreak:

The best way to reduce the impact of any pneumonia is, as always, to start before the cattle come in and make sure the animals are housed in a shed that allows correct ventilation, without direct gusts of wind onto the cattle, there is a lot of information on designing sheds for correct ventilation and adjusting old sheds to ventilate better. However, in the face of an outbreak, it is still possible to make a big difference, particularly on those still muggy days, by opening doors and, where possible, creating an outdoor extension to the shed. This can help reduce the spread of an infection by allowing the cattle to space out more, and breath in as much fresh air as possible. Even consider taking parts of a roof off, or removing / opening up certain areas of wall.

So the vaccines: below is a brief overview of our most used ones.

Tracherine

Rispoval IN

Rispoval 4

Bovalto

Hippra-bovis