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Farm news

Pelvic Measuring in Heifers

Emily Sycamore BVetMed MRCVS

Selection of heifers to retain for breeding can be a minefield; it may be the case that you have not had enough heifer calves born to allow you to make choices as to which to keep and which to sell on! However, if you are fortunate to have enough heifers to choose from, what criteria do you use? Weight? Height? Bull genetics?

But what about pelvic size? There is a correlation between the area of the pelvic opening in a heifer and how easy it will be for her to calve without assistance. By measuring the pelvic area and comparing one heifer's pelvic size to other animals in a group, an indication of which animals may calve easier can be made. It may also highlight animals with particularly small pelvises, which you may choose not to retain for breeding. Interestingly, we have found that just because a heifer is well grown and tall/ heavy enough to serve doesn't necessarily mean that she has a large pelvic opening!

We are now able to offer a pelvic measurement service. The procedure is carried out in a standing animal and involves using a special set of callipers that are inserted rectally allowing two measurements to be taken (vertical pelvic height and horizontal pelvic width), from which we can calculate the pelvic area. The procedure is well tolerated and can be done at the same time as a reproductive tract examination (where we can examine the reproductive tract to ensure that the heifer is cycling and that there is no evidence of free-martinism or other reproductive tract abnormalities). The pelvic area is then correlated against the animal's age to categorise the pelvis size as small (red), adequate (amber) or large (green).

The procedure is not a guarantee of assistance-free calvings, however if we can choose not to breed from animals with particularly small pelvises then this should likely reduce the interventions needed at calving. It is worth remembering that pelvic size is only one factor affecting the likelihood of assisted calvings. Sire selection is also very important and looking into the EBVs (estimated breeding values) of the intended sire to check calving ease (and calving ease of his daughters to ensure less problems in future generations) is important too! Ensuring that heifers don't get too fat is also a way of reducing the likelihood of calving problems.

Example set of results from a group of heifers

Age in days	Breed	Height (cm)	Width (cm)	Area (cm^2)	Weight (kg)	Age corrected pelvic area
405	BBXSIM	11	10	110	445	99.2
389	BBXSIM	10	12	120	430	113.52
389	BBXSIM	11	11	121	440	114.52
494	BB	11	11.5	126.5	475	91.67
380	BBXSIM	12	11	132	435	127.95
402	BBXSIM	10.5	13	136.5	455	126.51
667	SIM	12	11.5	138	550	56.46
366	BBXSIM	11.5	12	138	440	137.73
382	BBXSIM	11.5	12	138	440	133.41
409	BBXSIM	12	12	144	420	132.12
394	BBXSIM	13	12	156	410	148.17
361	BBXSIM	14	12.5	175	420	176.08

Come and see us at Ashby Show!

Sunday 14th July at Showground, Cattows Farm, Normanton Lane, Heather, Leicestershire LE67 2BD

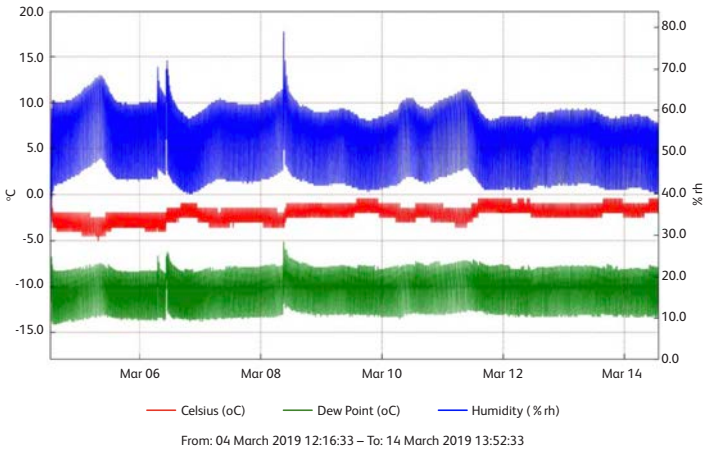
For more information call our practice on **01332 294929** or email **farmandequine@scarsdalevets.com**

ScarsdaleVets Farm

scarsdalevets.com

#Fridgecheck – How good is your vaccine fridge?

Vaccination is necessary and cost effective, but are you putting your vaccine at risk by storing it incorrectly? Vaccines tend to lose their efficacy if kept over 5˚C and freezing them can destroy them altogether. We carried out a data-logging exercise on one of our farms recently who suspected a problem with their fridge. Here are the results. Looking at the red lines, the fridge temperature never actually got above 0˚C over a 7-day period and averaged 2.2˚C meaning any vaccine stored in there would be useless. The fridge was quickly replaced for very little cost compared to what is spent on vaccines each year!



Salmonella Dublin – more common than you think?

Charlie Mays BVetMed MRCVS

Salmonella is a disease that mainly affects the dairy industry, but beef farmers should also be aware of the risks of infection. Salmonella is particularly important to identify and diagnose due to its zoonotic risk (it can cause severe illness in young children and the elderly – some strains have an up to 17% mortality rate in humans).

Impact of Salmonella outbreak

Financial impact is mainly through loss of milk yield. Estimates are between £6,000 up to £50,000 losses in the first year alone, with subsequent losses of up to £28,000 in milk yield in years post initial infection (Nielson et. al. 2013).

Salmonella is transmitted mainly by a faecal-oral route. It can be direct from cow to calf, or spread on clothing, aborted material and unpasteurised milk. Salmonella can survive for months in faeces and even years in dried on faeces.

Risk Factors

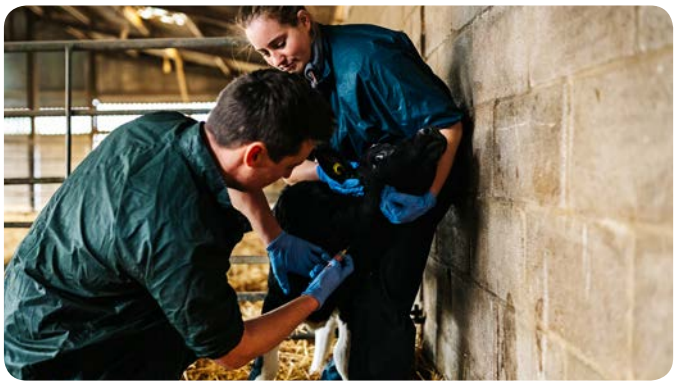
There are various factors that increase the susceptibility of your cattle to salmonella and many other diseases too.

Risk factors include:

- Age of cattle exposed (birth to two weeks old is a high risk period)
- Infection pressure
- Cow immunity and concurrent infections e.g. BVD
- Host Factors (a healthy gut is much less likely to become infected)

Clinical Disease

The main and most well know clinical sign of Salmonella Dublin is abortion. However there are a wide range of signs that could indicate salmonella that also vary depending on age of cattle. Once the bacteria is established, diarrhoea is the main presenting sign but you may also see: sepsis, pneumonia, neurological signs, poor growth, sloughing of extremities (ears/ hooves) and many none specific signs e.g. high temperature, depression and recumbency.



Carrier Status

Animals that become infected and fail to fully clear the infection become carriers. It is these carrier animals that cause a salmonella outbreak to become endemic within the herd. Latent carriers shed salmonella in low numbers and may only shed at times of stress (such as calving). Passive carriers will only shed if the source is present. Active carriers are the big problem, these animals will harbour the infection, multiply and shed in large quantities.

Diagnosis

Individual animal:

When animals are showing clinical signs (and have not been treated with antibiotics) it is most effective to try and detect the bacteria. This can be done by:

a) Faecal Culture
b) Post Mortem Examination

Herd level diagnostics:

a) Bulk Tank Serology
b) Faecal cultures of animals with clinical signs
c) Serology (blood sample) of calves

Treatment

Response to treatment of Salmonella Dublin is generally poor if seeing severe clinical signs but it is susceptible to most broad-spectrum antibiotics. Vaccination with Bovivac S is particularly useful in the face of an outbreak.

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