The GEORGE Farm Vets

Happy New Year!

I hope everyone had a lovely Christmas and New Year despite it being a bit of a quiet one this year. Thanks to all who attended our online Christmas quiz, it was a very entertaining evening from what I hear.

With further COVID changes and a new national lockdown recently announced we want to reiterate that we are still here and working as normal (just as you are too), so please ring in for anything you need as per usual. We can still do online meetings for herd health planning and other paperwork and are happy to chat through cases over the phone. On farm, we will continue to take the usual precautions and continue to maintain social distancing as much as possible.

As always please inform us prior to any visit if anyone on farm has tested positive or showed symptoms of COVID 19. Take care everybody.

Surgery selection

As a lot of you will know, we keep a record of all surgeries we undertake and follow them up quarterly so we can keep a track of how things are going. Chris recently pulled together the data from caesareans done over the last 3 years to analyse which cases went on to do the best post-surgery.

Generally, we would consider a successful surgery to be one where the animal was on farm and suckling a calf or producing milk 3 months post operation.

Surgical Success and Vaccines

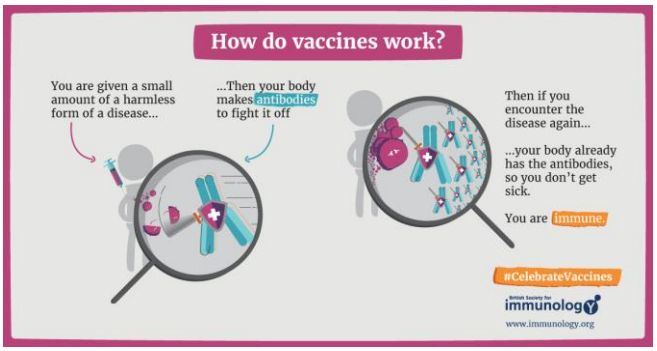
The main area to highlight was the difference in survival in cows which are carrying a live calf vs those which are carrying a dead calf. 91% of cows carrying a live calf went on to be productive, whereas in those carrying a dead calf (this could be freshly dead or dead for over 24 hours), success dropped to 65%- this figure drops as the calf gets more rotten. Only 2 cows with a necrotic calf were operated on and neither of them made it- *On this note if you see a cow due to calve looking uncomfortable or sick please call us sooner rather than later as this may make the difference between a live and dead cow (plus no-one enjoys a stinking rotten calving)*.

Whether a cow was up or down also had a bearing on success, with Caesars on standing animals being markedly more successful.

On farm, from case to case, the definition of a positive/ profitable outcome will vary depending on the value of the animal, value of the calf, likely future production/ profit from that animal, if the animal is a pet(!) and multiple other factors. All these impact how much you want to spend on an animal. The more informed we as vets are as to how likely a successful surgery will be, the better we can discuss with you what course of action to take. When coming out to you for a calving, we all want the most positive outcome possible for you on farm, whatever that may be.

Vaccines

With all the chat about vaccines in the news at the moment I thought it might be interesting to take a look at how they work, as what happens in humans and animals is a very similar process.

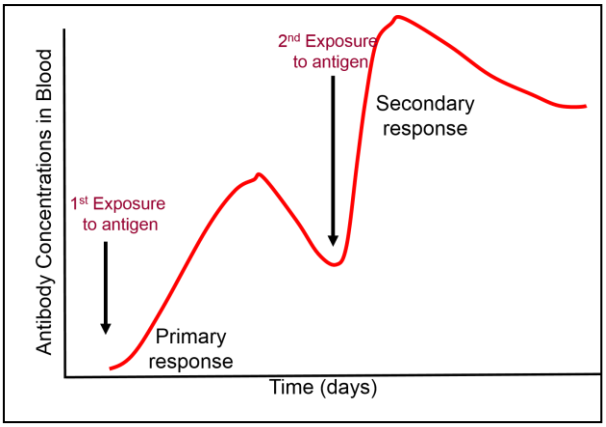


A vaccine works by exposing the immune system to a dead or weakened form of a virus/ bacteria. This primes the white blood cells to produce specific antibodies. Antibodies are large proteins, which, when an infectious agent is encountered, hunt down the pathogen and mark it for destruction by the immune system.

After vaccination, the immune system has a memory of the antibodies produced, and so if the pathogen is encountered again, it can quickly respond and fight the disease before illness occurs.

Why are 2 doses needed for the initial course?

As with many of the vaccines used on farm, the COVID 19 vaccine requires a 2-dose primary course.



As you can see in the graph, the first dose causes a rise in antibody levels, but this then drops rapidly. The second dose causes a higher and more long-lived increase. This means the body is more prepared to fight infection after the second dose. Annual boosters then follow the same effect. If too long is left between doses the levels drop right down, and so the antibody levels will not reach their maximum meaning protection is not as good.

Why do vaccines need to be kept cold?

The proteins contained in a vaccine are very sensitive and changes in temperature can damage them. If they are damaged then they no longer resemble the part of the pathogen they are designed to fight and the immune response will not occur, meaning the vaccine will not work.

It is important to monitor the temperature of your fridge if storing vaccines, 2-8^{o}c is the correct temperature.

Other things to remember…

- It is important to give the correct dose- if using a dosing gun, calibrate it regularly.
- Check the route of administration.
- Avoid vaccinating at times of stress- if the immune system is already under pressure the vaccine will not work as well.
- Quarantine, test and vaccinate incoming stock to ensure they are protected to avoid causing disease in them or your herd.
- Make sure to vaccinate at the right time, vaccines are not immediately effective and some require the primary course to be completed at a certain time, for example 4 weeks prior to mating.

Hopefully, we will all receive our COVID vaccine before too long and life can finally get back to normal!

Look after yourselves, and all the best for 2021!

Sarah