Some frequently asked questions

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Recently, I spoke at a virtual BQA training where the audience could pre-submit questions on livestock health. I was very impressed by the number of good questions that came in. In fact, some of them will be used to host an entire workshop organized by the California Beef Council, who also sponsored the BQA training. So, if you are BQA certified, look out for announcements about these meetings from the CBC throughout 2021. Possible topics include use of the new Foothill abortion vaccine and parasite control. Should you miss a workshop, you will still be able to access a recording on the CBC webpage under Producer Resources. As we have all become accustomed and used to meeting on zoom or other virtual platforms, it is likely webinars are here to stay. They offer a chance to reach a broader audience and come with the convenience that you don't have to travel, and you may watch a recorded version at a later time. However, there will certainly also be in person meetings again, since engaging with producers in person cannot be replaced completely by online meetings.

Here are a few of the questions we received with answers:

Q: Cattle at a ranch next to ours had Johne's – are there any steps I need to take?

Answer:

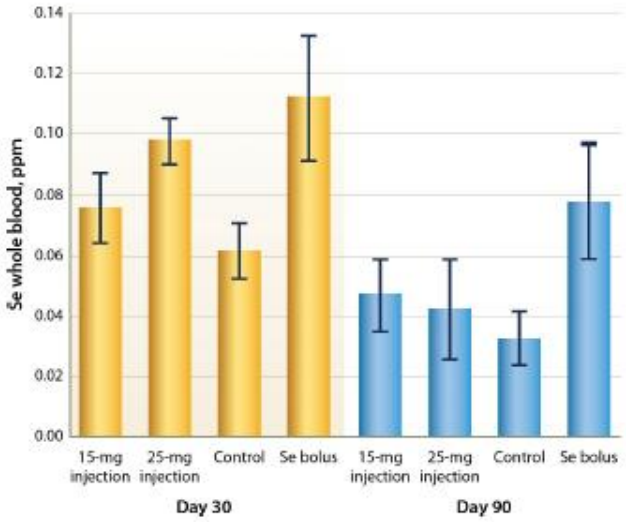
Johne's disease is a chronic disease of cattle caused by *Mycobacterium avium* subspecies paratuberculosis. The bacteria can persist in the environment for years, which is one of the reasons control is so difficult. Another reason is that it often takes years for the actual clinical disease to show up in cattle after they become infected. The main route of infection is fecal – oral, i.e., through ingested manure. Young calves are most susceptible and become infected when they suckle an udder that has traces of manure on it. Older cattle are less likely to become infected. The bacteria infect the small intestine which over time thickens. Cattle become unable to absorb nutrients efficiently and develop a chronic diarrhea and lose condition. At that point, the disease might be recognized as Johne's.

If your neighbor has had one or more confirmed cases of Johne's disease, you want to make sure you can shield your cattle from getting exposed to the neighbor's cattle manure. If there is fence-to-fence contact between cattle from both properties, it may be best to try and protect young calves and replacements from becoming exposed, i.e. you could add a buffer zone or graze young calves somewhere else. Nose-to-nose contact won't transmit the disease, only infected manure that makes it onto your pasture or into the water supply. In addition, you should review your biosafety plan and ensure that nobody can introduce manure from another ranch on their vehicle, boots, or tools to your property. A great resource is www.johnes.org. Johne's disease is one pathogen you want to keep out, but there are others such as Bovine Leukosis Virus (BLV) or Salmonella that you also want to avoid being introduced.

Question: Does multi-min injection work as well as a selenium bolus in calves?

Answer:

The short answer to this question is "No". The long answer is, Multimin provides sufficient selenium for 30 days and can be used to give a quick boost to calves at vaccination or before transport for example. However, beyond the 30-day period, boluses have shown to provide sufficient selenium for at least 90 days and are designed to be given only once a year. It is important to understand that the boluses provide the maximum allowable amount of selenium and that no other form of selenium should be provided to the calf if a bolus is given. Boluses are for calves 3 months of age or older. A study comparing Mu-Se, Multimin, and selenium bolus versus a control showed that only cattle given a bolus still had normal blood selenium levels of 0.08 ppm after 90 days:



From Davy et al. 2016: Efficacy of selenium supplementation methods in California yearling beef cattle and resulting effect on weight gain, California Agriculture 70(4): 187-193

Question: What (if any) mineral programs help with bad eyes and foot rot in yearlings?

Answer:

A good mineral program is essential for immunity and overall health of cattle. For example, copper is important for a functioning immune system and zinc is needed for hoof health. Iodine has been shown to prevent footrot and there is some evidence it may help with pinkeye as well. EDDI (ethylenediamine dihydroiodide) is a form of iodine that is available at the feed store and can be mixed into grain or mineral mixes. Some mineral mixes also already include this chemical. Iodine, like selenium, has a maximum legal limit that can be fed, which is < 50 mg EDDI per head per day, so follow mixing instructions carefully.

Question: If a band is used for castration, is a tetanus shot recommended at the time of banding?

Answer:

Yes, castration, and in particular banding is a risk factor for tetanus. Age of the animal at banding also plays a role with older animals at higher risk. Ideally, the first dose of tetanus vaccine is given before castration and a booster at castration. Is tetanus antitoxin as good as the vaccine? The antitoxin is hyperimmune serum that contains antibodies to the bacteria causing tetanus and works best when the animal is already infected. It does not offer the same protection as two doses of the vaccine and if given at castration, the timing is not perfect. Even if you have never had a case of tetanus in your herd, adding this vaccine should not increase cost by much, if any, to your vaccination program. Think of vaccinations as insurance – it is best if you never need them.

Question: Are there any new emerging diseases that we need to be aware of in cattle?

Answer:

There is nothing alarming on the horizon. Occasionally, new viruses emerge in humans, as we are all painfully aware with the arrival of the coronavirus pandemic, and the same is true in livestock. In Europe, several years ago, a new virus causing abortions in ruminants, Schmallenberg virus, emerged. It is transmitted by midges but hasn't made its way to the U.S. The chance of this happening has been estimated to be small due to our import restrictions of live animals and strict testing requirements. A virus thought to cause diarrhea in calves, Kobu virus, was first identified in Japan in 2003 and has now been found in many countries across the globe including in the U.S. However, a lot still needs to be learned and after the initial discovery in a calf in Illinois, no new reports of this virus have been published, so its impact is likely minor.