Rochester Veterinary Practice August 2024

NEWSLETTER

In this issue:

Seasonal reminders:

- Put a halter on down cows with a prolapsed uterus as soon as you find them. When cows get up and walk the prolapsed uterus stretches and bangs into the cow's hocks and rupture the uterine artery.

- Treat dirty cows with metricure early. Dirty cows treated with metricure two weeks after calving are twice as likely to get in calf as those not treated.
- Use Vetrelyte-ZB calf electrolyte for scouring calves. Feedback from calf rearers who use Vetrelyte-ZB is that it is a superior product for treating dehydrated calves.
- Treat and remove lame cows early from the milking herd. Reduce the distance walked each day and the time spent on concrete.

Abortion in Dairy Cattle

Abortion is defined as the expulsion of the foetus between day 45 and day 260 of pregnancy.

The 'normal' background level of abortion in dairy herds is 1-2% of a calving group. Investigation into abortion issues is warranted if you experience greater than 2% abortion in a calving group. There are many causes of abortion in cattle, including bacterial, mycoplasma, viral, fungal, protozoal, chemical (such as PG), toxins, and genetic factors (calf defects not compatible with life).

When we investigate abortion outbreaks, we like to collect samples from the aborted foetus and placenta, as well as blood samples from the cow. Under some circumstances, feed samples may also be collected.

Even when we collect all the appropriate samples, we only make a diagnosis about 50% of the time.

Just recently, we have investigated abortion outbreaks on three dairy farms. In all three case we were able to make a specific diagnosis and identify the cause.

On Farm one, 6 heifers aborted out of 30 due to a fungal infection. This was linked to the heifers eating water damaged hay.

On Farm two, 5 cows out of 90 aborted, due to infection with the protozoa Neospora caninum. Neospora is spread through the faeces of infected dogs and foxes.

Farm three had sporadic abortions, as well as a couple of cows with neurological signs (including mild head tilt, blindness, and staggering).

A post-mortem examination revealed that one cow had a fungal infection that had spread to the placenta and brain. It is likely that the cow was exposed to fungi through her diet (spoiled feed).

Rotavec-Corona Vs Ultravac Scourshield Vaccine

We are currently unable to get Coopers Rotavec-Corona vaccine. The best alternative is the Ultravac Scourshield vaccine. This vaccine is injected into the muscle rather than under the skin.

Cows that have previously received an annual booster with Rotavec-Corona vaccine, can receive Ultravac Scourshield vaccine without needing a second booster 3 to 6 weeks later.

Cows and heifers that have not been vaccinated with Rotavec-Corona in the past require two doses of Ultravac Scourshield vaccine. The first dose should be administered at dry off 3-9 weeks before the second dose, which should be given 2-6 weeks prior to calving (when going on to lead feed).

Uterine Pessaries

It seems logical to treat cows with retained afterbirth with pessaries in the uterus to try and reduce the chance of infection. Studies have shown that in many cases pessaries do not help cows with retained afterbirth and maybe even make things worse.

It may be that pessaries can slow the "rotting" process of the afterbirth and increase the time that the afterbirth is retained. It is thought that the presence of antibiotics in the uterus decreases the production of white cells in the uterus as well as reducing the effectiveness of white cells in the uterus.

There is more and more evidence that the best treatment for cows with retained afterbirth is to do nothing unless the cow is sick (has a temperature above 39^0 C). If the cow is unwell then she should be treated with an injectable antibiotic such as Oxytet. If she is very sick, then she will benefit from veterinary help with anti-inflammatory drugs or fluids.

If you want to use pessaries, we recommend that you: -

- Administer them within the first week of calving while the cervix is open, and they are easily introduced.
- Do **not** use them when the afterbirth is still present.
- Give cows that are not well injectable antibiotics.

In general, we recommend the following treatment protocol for dirty cows: -

- Retained membranes should be left to rot out and not removed with force.
- Pessaries should not be used until the afterbirth has come away.
- Metricures are the best treatment for cows that have an infection in the uterus and should be used between 1 and 6 weeks after calving.

Metacam, Mastitis and Fertility

Studies into the effect of using the non-steroidal anti-inflammatory (NSAID) Metacam in cases of mastitis have yielded some interesting results for cow fertility.

A 2009 study in New Zealand found that cows with mastitis that received a dose of Metacam (along with standard antibiotic therapy) were **42%** less likely to be culled. The most likely reason was that fewer of these cows were empty at the end of the season.

Subsequent studies have confirmed that this reduced culling rate is due to improved fertility - with a **10% improvement in first service conception rate,** a reduction in the number of required inseminations and **increased probability of cows being in calf at 120 days** post calving.

Most of the mastitis cases were at or around calving so we are not sure of the exact mechanism, but it may have something to do with the effect on the oocyte (egg) when the cow has mastitis.

It is important to note that in these studies the mastitis was mild clinical mastitis where the cow was not sick.

There is also evidence to suggest that Metacam has positive effects on the outcome of mastitis treatment – Metacam used with an antibiotic was found to result in a 16% improvement in bacteriological cure rates when compared to antibiotic alone. This means more cows can eliminate the causative bacteria from their udders.

It has always made sense to give cows that are sick a dose of Metacam but now we have good evidence that all cows with clinical mastitis will benefit from treatment.

Tail Docking (Shortening)

Tail docking or amputation using rubber rings has been a common practice as some farmers believed that it improves hygiene and improves workplace health and safety.

Existing scientific evidence does NOT support the claims that tail docking of dairy cows reduces the prevalence of mastitis, improves the clinical health of cows, reduces the soiling of teats and udders, reduces bacterial contamination of milk or reduces the incidence of leptospirosis in staff.

Tail docking does remove physical interference to milking staff from cows' tails, but there is no evidence that it significantly improves workplace safety.

The Australian dairy industry does not support tail docking and recommends alternative practices to tail docking including switch trimming.

The practice of tail docking is a welfare concern because the practice causes acute pain or discomfort and risks neuroma formation (chronic pain), infection and prevents normal behaviours (such as fly deterring and communicating with other cows).

Most milk factories have in their contract that tail docking is prohibited unless under veterinary advice and only to treat injury or disease.