Rochester Veterinary Practice July 2022

NEWSLETTER

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Seasonal reminders:

- Cows should calve in a clean environment, so preparation of this area should start soon. Also make sure calf sheds are clean before the first batch arrives.
- Check dry cows each week for mastitis. Walk around them and look for swollen quarters. Any quarters that have mastitis should be treated as you would treat an infected quarter during lactation. Do **not** touch the other quarters unless they look suspicious.

- Spray paint the leg that is lame if we are coming out to treat lame cows. Sometimes the cow that is very obviously lame walking along the track can mask that lameness once she is stirred up and on concrete.

Use Metricure early

We know that treating cows with a Metricure when they have an infection in the uterus helps their fertility. If cows, with a discharge of pus from the cervix, are treated within 4 weeks of calving then their first-round conception rate is **48%** compared with **22%** in untreated cows.

Which cows to check?

- **Cows with retained foetal membranes**
- **Stillbirth or a calf that dies within 24 hours of birth**
- **Twins**
- **Milk fever**
- **Discharge from vulva seen 7 days or more from calving**
- **Assisted calving**

It is important to be hygienic when checking to see if cows have a discharge from the cervix. If you use a gloved hand, make sure that you use disinfectant, and that the vulva is cleaned properly.

The best way to check to see if a cow has a pus discharge is to use a metricheck device. This is a thin metal tube that has a rubber cup like an inside out squash ball.

Ideally, you should aim to treat dirty cows within **2 weeks** of calving to get the maximum benefit.

In the large trial at Maffra, they found that when cows were treated with Metricure 6 weeks or more after calving that their fertility was worse than when they were left untreated.

Our thinking is that when cows have been calved this long the cervix is shut tight and all the extra fiddling around passing the pipette does more harm than the good of the antibiotic.

Heifers with udder oedema (flag)

Heifers with flag (fluid swelling in the udder and under the belly) are a nuisance as they are prone to mastitis and are difficult to milk out. The ligaments that support the udder may stretch permanently.
Several different factors cause udder oedema: -

- Salt retention by the heifer

- Pressure on the veins returning blood from the mammary gland by the calf
- Low protein levels in the blood as antibodies move from the heifer's blood to colostrum
- Heavy grain feeding (especially in heifers)
- Excess salt intake (sodium and potassium)
- Insufficient intake of calcium

Heifers with flag that have already calved can be treated with **Frusemide**, which is a diuretic that rapidly reduces the fluid swelling. A dose of oxytocin (Letdown) after calving will help as well.

Before calving the options for treating flag are: -

- Induce calving with a short-acting cortisone injection
- Milk affected heifers before calving
- Apply teat spray to heifers before calving. The glycerine will help with teat health and the disinfectant will help reduce mastitis. This is only practical if heifers are getting lead feed in the dairy.
- If your heifers are quiet and willing to stand at the lead feed trough, they can be teat sprayed with a long nozzle/wand on a garden sprayer.
- Add a calcium supplement such as limestone to the ration.

Heifers take longer to calve and lie down for longer periods during calving, so their udders are more likely to get contaminated with mud and manure. Older cows will boss heifers around and force them to calve in the worst area. For this reason, heifers should be calved in a separate paddock away from older cows if it is possible.

If you are thinking of inducing heifers to calve, we find that a short-acting cortisone, such as **Dexapent**, is a gentler option than **PG**. Heifers induced with **PG** are more likely to calve quickly but sometimes the cervix and birth canal do not dilate properly increasing the chance of tearing. Heifers induced with **Dexapent** are less likely to retain their afterbirth compared with heifers induced by **PG.**

Bovine Digital Dermatitis (also known as Hairy Heel Wart/ Strawberry Footrot) Research

Our practice had an opportunity to participate in Sydney University research focused on Bovine Digital Dermatitis (BDD), which is an emerging, infectious cause of lameness in dairy cows in Australia.

We attended 20 farms at milking time. Some stats from the research:

- We examined 6751 cows back feet and found that 492 cows had digital dermatitis lesions (this was 7% of dairy cows examined).
- 18 herds had digital dermatitis
- Within herd prevalence ranged from 1% to 27% (Average 7%).
- There does not seem to be any trends regarding herd size.
- There was a trend for farms using feed pads or barns to have a higher prevalence.

What is BDD?

BDD is a painful, contagious disease. It causes ulcers and wart-like lesions on the bulb of the heels. BDD is caused by a group of bacteria called spirochaetes (Such as *Treponema spp.*, *Borrelia* spp and *Dichelobacter* spp).

Herds become infected when a carrier cow is introduced to the herd. Other cows become infected during wet and muddy conditions where maceration of the tissues between the toes allow the bacteria to enter the skin. Once a cow is infected, they remain so for life.

The lesions of BDD are classified into 5 stages; however, we commonly see two distinct types:

- M2 Lesions: The erosive/reactive (strawberry-like granulation tissues) form- Acute form that can cause lameness
- M4 Lesions: The proliferative (wart-like) form- Chronic from not associated with lameness.

The diagnosis of BDD is based on the classic lesion present on the foot.

Treatment involves cleaning and drying the affected foot, then spraying the lesion with an oxytetracycline aerosol solution (Nil milk Withhold). This is best caried out at the time of milking (when the cow comes into the shed to maximize contact time. Good results are achieved if treated twice daily.

Risk factors for BDD that have been identified include:

- Cattle that are housed or kept in barns
- Wet and muddy conditions
- Cows with other claw pathology
- Older cows
- Holstein cattle (higher risk than Jersey and other breeds)
- No routine hoof trimming carried out
- Larger herds
- Farms where young stock were reared on farms alongside heifers from other farms
- Farms which used outside staff to trim feet

Management at the herd level:

- Foot bathing for high prevalence herds (>15%), with 5% copper sulphate for 4 consecutive milking each week (replacing solution after 200 cows), can reduce the prevalence by 50% in some herds*. The ideal foot bath is 3m long, 0.5m wide and 0.15m deep and cows should have washed in the dairy prior to walking through foot bath.

*Poor footbath management and hygiene can potentially reduce the efficacy of treatment and increase the risk of spreading it BDD.

- Regular (annual) herd hoof trimming
- Early treatment of affected cattle.
- Improve foot hygiene - better scraping of feed pads etc, removing sources of deep slurry, water, or mud on laneways etc.

Prevention includes:

- Having a closed herd.
- Having dedicated claw trimming equipment that is only used on your farm.