### **Rochester Veterinary Practice**



#### January 2020



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#### Seasonal reminders:

 Do not let cattle graze country with significant amounts of heliotrope.
Heliotrope damages the liver and cattle are affected months and even years later.



## Water deprivation in heifers

A group of approximately 80 heifers were without water for 5 days when they knocked out the power cord to the water pump that was supplying their drinking troughs. This coincided with a burst of extremely hot weather.

Many heifers had already died when the problem was discovered, and a further large number died over the next couple of days. To everyone's frustration heifers that were on their feet deteriorated after drinking water and did not respond to treatment.

These heifers would have been unable to regulate their temperature and would have died from organ failure. It is likely that many of the heifers that died after having the water turned back on had already suffered irreversible organ damage.

We also think some of the heifers suffered brain damage when they drank too much water too quickly. The brain cells have a high concentration of sodium in them and when the animal drinks, water is drawn into the brain cells causing them to swell. These animals have a stumbly gait and some appear blind.

The treatment of these brain affected animals is intravenous hypertonic (extra salty) solution to try and draw out fluid from the brain.

We are all wise after the event, but it is a timely reminder that animals need checking daily to ensure they are alright.

If you ever are in a situation where you discover stock without water, it is recommended that you should only slowly introduce water. The recommended rate is 0.5% of bodyweight each hour. For a 400kg heifer this means only 2 litres each hour for the first 24 hours.

The practicalities of this are challenging if there is a group of very thirsty animals.

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# **Eve's foot-and-mouth** disease adventure

Eve travelled to Nepal in November to participate in a foot-and -mouth (FMD) disease training course. The course is designed to get Australian vets familiar with FMD by exposing them to real outbreaks of the disease.

Foot-and-mouth disease is not present in Australia but remains active in many other parts of the world, especially parts of Asia, the Middle East and Africa.

It is a disease that affects cloven hoofed animals including cows, pigs, sheep and goats. Initial clinical signs include dullness, reduced milk production and reduced appetite. Signs then rapidly progress to the appearance of blisters in and around the mouth, feet and teats. Once they rupture, they cause painful ulcers and animals become lame, salivate excessively and are reluctant to eat and drink.

Early diagnosis is very important to control spread of disease to other farms. The disease spreads very easily by direct or indirect contact including by people, vehicles, animal by-products and even by wind.

There are a number of different diseases which can show very similar signs and it is important to investigate these cases, given the devastating consequences of a missed case.

If an outbreak were to occur in Australia it would cost billions of dollars to control and eradicate the disease. It would devastate our export markets as well as have a significant effect on animal welfare.

We can all play our part by being proactive about biosecurity on farms. Biosecurity is considered any measure that reduces the risk of introduction and spread of disease.

## Pregnancy testing heifers

We like to pregnancy test heifers early because it is very difficult to age beyond 3½ months. The calf falls out of reach in heifers earlier than in older cows.

Compared with older cows a higher percentage of heifers are pregnant in the first 3 weeks. An early preg test will only leave a few heifers that will require a second preg test at a later date.

The advantage of identifying empty and late calving heifers is that they can be sold for export. Late calving heifers are less profitable because they are difficult to get back in calf quickly once they enter the milking herd and often end up empty or as carry-over cows.

If heifers have been artificially inseminated an early preg test will help identify those that are pregnant to AI. This is particularly important when you have used sexed semen.

#### When to pregnancy test

The best way to get accurate calving dates is to have two rounds of pregnancy testing.

- 1. The first round is done 7 or 8 weeks after the end of AI. Cows that are pregnant to AI are identified.
- 2. The second round is done 7 or 8 weeks after the bulls come out so it is possible to identify all empty cows and cows that are pregnant to the bull.

Two rounds of pregnancy testing are more accurate because it is easier to age pregnancies early on. It is easy to tell an 8-week pregnancy from a 12-week pregnancy but very difficult, if not impossible, to differentiate between a 5-month and 6-month pregnancy.

The advantages of accurate calving dates are: -

- Drying off dates can be more accurately judged. Late cows can be milked through June and July if conditions are favorable. There will be money to be made during these months.
- There is less chance of dry cow antibiotic residues in the milk.
- Cows can start getting their transition feed at the right time.

Last day of AI	Ideal time to preg test
Nov 17	Dec 29 – Jan 12
Nov 24	Jan 5 – 19
Nov 30	Jan 11-25
Dec 8	Jan 19 – Feb 2
Dec 15	Jan 27 – Feb 9
Dec 22	Feb 2 – 16
Dec 29	Feb 9 – 23
Jan 1	Feb 16 – Mar 2

#### Early pregnancy testing

With the ultrasound we have been pregnancy testing down to as low as day 31 after insemination. We have been doing this to identify non-pregnant cows that have not come back on heat.

These non-pregnant cows that are not seen back on heat are the "phantom cows" that often do not start cycling again until February or March. These cows are very frustrating but when they are identified early enough there is a chance to join them again before it is too late.

Cows that are pregnancy tested this early will require another pregnancy test later as there is a small but significant amount of embryonic loss from day 31 onwards.