Dairy Newsletter
February 2021

CVC CLINIC NEWS

Welcome to the February Dairy Newsletter for 2021! Everyone is keeping busy drying off cows at the moment so this month we have included some information on managing dry cows to ensure you get the best out of their next lactation. Photosensitivity / swamp fever / fire fever has become an issue at the moment—If you have any concerns about photosensitivity in your cows please give us a call.

We are in the process of organising client nights for 2021 provided COVID keeps away. If you have any topics in particular you would like to learn about please contact us as we would love to know how we can help!

Camperdown Veterinary Centre

1 Leura Street , Camperdown

Ph: (03) 5593 1077

Hours:

- 8:00am – 5:30pm (Monday – Friday)
- 8:30am – 12:00pm (Saturday)

Dairy Drug Orders

Established dairy clients can request non-urgent drug orders to be delivered on farm any day. We will endeavour to deliver within 24 hours.

DID YOU KNOW?

If you have had trouble in the past with the pink eye vaccine not working, you may have a strain that is not covered by the vaccine. CVC can assist with laboratory development of a farm specific vaccine by swabbing and culturing samples from affected eyes.

PHOTOSENSITIVITY IN CATTLE

With dairy herds grazing crops at the moment we are seeing many cases of **photosensitivity** (otherwise known as **"swamp fever"** or **"fire fever")** in cows. Photosensitivity is a severe condition in which the skin become abnormally sensitive to sunlight after animals have eaten certain toxic plants. There are two main types of photosensitivity, they are classified according to the source of the photodynamic agent (a component of the skin that is very sensitive to ultraviolet light):

- **Primary photosensitivity**— is caused by ingestion of plants that contain light sensitive substances such as ***brassica* crops (rape and turnips) or St. Johns Wort**. The toxic substance gets absorbed into circulation and destroys cell membranes in the skin when the animal is exposed to UV light.
- **Secondary photosensitivity**— occurs when an animal has underlying liver damage from toxins that results in the animal being unable to breakdown the photodynamic agent phylloerythrin. The green pigment chlorophyll in plants is metabolised in the animal to a light-sensitive compound phylloerythrin. When the liver is damaged, phylloerythrin cannot be excreted and it builds up in the bloodstream. If a sufficient quantity of phylloerythrin is present in the blood vessels at the surface of exposed skin, sunlight transforms the phylloerythrin into a toxin which severely damages the skin.

Signs of photosensitivity include irritation, kicking, head shaking and swelling of affected areas. Often the first sign will be cows kicking cups off. As the condition progresses there is blistering, necrosis and sloughing of the skin. **White hairless areas of skin are usually most affected** due to their lack of pigmentation protecting from skin damage.

In severe cases when there is significant teat damage, cows may develop mastitis. Some cows are severely affected systemically and may be found recumbent with a fever. In the acute stages of photosensitivity cows should be **moved to shaddy paddocks**. **Anti-histamines and anti-inflammatories will help relieve irritation and provide some pain relief** to affected cows. The application of an **emollient zinc oxide sunblock** (such as Filtabac) to affected to teats and udders is crucial for protecting the cow from long term damage.

Histamil has been the traditional treatment for sensitivity—unfortunately this drug is no longer being produced. We are now stocking Niramine, an equivalent antihistamine with the same efficacy and zero withholding periods.

DRY COW NUTRITION

A cows nutrition during the dry period is crucial to her health and performance during the following lactation. Cows should be dry for at least 6 weeks between the end of one lactation and the start of the next one. Given these cows are heavily pregnant at this stage, it is very important that daily nutritional requirements for metabolisable energy and protein are met in order to prevent metabolic disturbances. This period does not include the transition period which is the last three weeks before calving. We will provide more information on managing your cows during the transition period in next months newsletter.

Body condition scoring (BCS) at dry-off

Assessing a cows BCS using a scale of 1-8 provides an industry standardised measure of a cows energy reserve.

Cows should be in body condition score 5/8 at calving. Ideally the herd should be in the desired body condition score at dry-off and fed to maintain that body condition until calving. However, it is possible for them to gain body condition in the first four weeks of being dried off.

Effective management of body condition and nutrition improves herd reproductive performance, milk production, feed conversion efficiency, and enhances cow health and welfare.

- **Cows that are too thin at calving are less fertile and produce less milk**— thin cows take longer to recommence cycling therefore reducing submission rates and conception rates at joining. These cows often fail to reach their peak milk yield and have poor lactation persistence because they partition more energy into maintaining body condition than milk production,
- **Cows that are too fat at calving often have health problems**— fat cows are more likely to have calving problems, metabolic disorders such as fatty liver syndrome, displaced abomasum and have poorer appetites after calving.

Body Condition Score 4.5

The following images are of the ideal BCS prior to calving.

Dairy Australia has some useful tools on body condition scoring including information on how and when to condition score, recording sheets, and what to do if cows are under conditioned. They have even developed an app to allow easier and more efficient body condition scoring cow-side.

Feed requirements of a dry cow

Dry cows eat less than lactating cows. Energy consumed in the dry period will be used for maintenance and pregnancy. Cows will also need extra energy over and above this requirement if trying to increase body condition during this period. Rules of thumb for feeding dry cows are:

- The **daily dry matter intake of a dry cow will be about 2% of bodyweight.** For a 550-kilogram cow, that equates to 11kg of dry matter (DM).
- **Daily ME requirements for maintenance generally range from 60 to 78 megajoules (MJ) of ME per day,** depending on the size and weight of the cow.
- **Energy requirements for pregnancy are significant** in late lactation, often in the **region of 30 to 50 MJ/day**

Farmers can ensure dry cows are getting enough from their feed each day by calculating the daily ME requirements of these cows. If necessary, **topping up their daily diet with 1–2kg of concentrate will add another 12 to 25 MJ of ME per day,** which may be enough to ensure these cows maintain good condition and perform better in the following lactation. This information was retrieved from Dairy Australia " Dry Cow Nutrition" resource. If you have any further questions please contact the clinic.

DOWN DRY COWS

When the nutritional requirements of heavily pregnant dry cows are not met, **they are at risk** of going down with a condition called protein-energy malnutrition otherwise known as **pregnancy toxemia** or **starvation ketosis.** These animals are often found recumbent following a cold snap of weather. If you find any of your dry cows recumbent and unable to stand, **seek veterinary attention immediately.** If you are concerned about the energy content of your dry cows ration, please do not hesitate to contact the clinic we are here to help and prevention is better than cure!