NEWSLETTER

In this issue:

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.
- Watch out for heat stress in early autumn calving cows. Cows with milk fever are not able to regulate their temperature and will overheat on a hot day. Throw buckets of water on these cows to help them cool down.
- Calves born in hot weather are especially susceptible to dehydration. Sick or scouring calves need extra attention in hot weather.

Rochester (138th) Great Northern Show

Our practice was proud to be a sponsor of the 138th Rochester Great Northern Show.

We would like to sincerely congratulate the show committee, volunteers, sponsors and all those involved in organising such a successful event. A tremendous amount of planning and coordination goes on behind the scenes to make the day run smoothly, and it is always great to see the community come together.

We also recognise the significant time, effort and dedication required to prepare cattle for exhibition. We commend all farmers who entered cattle in this year's show and extend our congratulations to those who achieved success in the ring.

What's on for the Practice this Month

As with last month, our vets are continuing to stay busy pregnancy testing spring-calving cows, assisting with calvings, and supporting farmers with calving-related issues.

We have heard that several of our dairy clients have experienced some particularly big days, with 20+ cows calving in a single day. That level of pressure can certainly test staffing and facilities. A few farmers have also

reported cows calving earlier than expected this season.

Pregnancy Loss in Dairy Cattle

A recent Australian study investigated the level of pregnancy loss occurring in dairy herds. The study followed 1,149 cows that were diagnosed pregnant at 35 days post-insemination. These cows were re-scanned twice at 60-day intervals to monitor for pregnancy loss.

The results showed that 90 cows (7.8%) lost their pregnancy between 35 days (5 weeks) and 161 days (23 weeks) of gestation. This highlights that pregnancy loss after early diagnosis is not insignificant and can have meaningful impacts on herd productivity and empty rates.

The study identified several risk factors associated with increased pregnancy loss:

Milk production extremes – Cows producing significantly less than 30 litres per day or considerably more than 30 litres per day were at greater risk compared to cows producing around 30 litres per day.

Mastitis after conception – Cows that developed mastitis after becoming pregnant had a higher risk of losing the pregnancy.

Low body condition score (BCS) at mating – Cows in lower condition at the time of mating were more susceptible to pregnancy loss.

Reducing the Risk

To help minimise pregnancy loss, maintaining overall herd health and ensuring cows are in adequate body condition at mating are key management priorities. Prompt detection and treatment of mastitis, along with nutritional management to avoid production extremes where possible, are also important considerations.

Based on this research and our own experience, we recommend carrying out at a second pregnancy test prior to drying off.

Confirming pregnancy status before dry-off helps avoid unnecessary dry cow therapy in empty cows and allows for earlier management decisions.

Antibiotic Residue in Milk

We are keen to be informed whenever an antibiotic residue is detected in milk delivered to the factory.

In some cases, the cause is straightforward — standard procedures were not followed, and a mistake occurred. However, not all cases are simple, and identifying the root cause is essential to prevent repeat violations.

For the past several years, when bobby calves have tested positive for antibiotic residues, it has been mandatory for the dispensing veterinarian to thoroughly investigate the case. Through these investigations, we have been able to identify what went wrong and help implement practical protocols to minimise the risk of recurrence. This system has been very successful in reducing antibiotic residues in bobby calves.

In contrast, it is not mandatory for the dispensing vet to be involved in milk residue violations. While processors encourage suppliers to contact their veterinarian, this does not always occur. We strongly encourage you to involve us if a residue is detected — even if the cause appears obvious.

Early Calving – A Common Risk Factor

One of the most common causes of antibiotic residues in milk is cows calving earlier than expected. This may occur due to:

- Natural variation in gestation length
- Twin pregnancies
- Inaccurate pregnancy test results
- Poor joining records

When cows calve earlier than anticipated, it is critical that withholding periods are carefully recalculated and cows are kept out of the vat for the full required time.

Dry Cow Therapy Withholding Periods

With dry cow treatments, both the minimum dry period and the post-calving milk withholding period must be observed.

Cepravin DC – Minimum dry period: 49 days, plus 4 days after calving

Total minimum time from treatment to milk in vat: 53 days

Juraclox DC – Minimum dry period: 35 days, plus 4 days after calving

Total minimum time from treatment to milk in vat: 39 days

Because Cepravin DC has a longer minimum dry period, it is essential to have accurate expected calving dates if you plan to use this product.

The most reliable way to obtain accurate calving dates is to pregnancy test cows using ultrasound when they are less than 16 weeks pregnant. This improves dating accuracy and reduces the risk of unexpected early calving leading to residue violations.

When There Is No Obvious Cause

There have been occasions where no clear reason for the antibiotic violation could be identified. We are particularly keen to investigate these cases, as they may highlight less obvious risk factors or system gaps that can be addressed.

Farm Staff Training and Consultancy

Our practice offers tailored on-farm staff training and consultancy services. In recent months, several of our veterinarians have been involved in practical, hands-on training sessions with dairy teams.

Training topics have included:

- Correct administration of medications
- Stomach tubing of cows and calves
- Calving management and assistance techniques
- Recognition and treatment of common diseases in cows and calves

These sessions are designed to be practical and relevant to your specific operation. They also provide an opportunity to review your current treatment protocols and, where needed, develop or refine clear written protocols for your enterprise.

Well-structured protocols help ensure consistency between staff members, improve animal welfare outcomes, and reduce the risk of errors — particularly during busy periods such as calving. They also provide confidence for newer or less experienced team members when managing sick cows and calves.

Example protocol:

Calf nutrition

The following section has been written by Jonathan Bird, a final year Veterinary Student from University of Sydney.

With autumn calving upon us, it feels timely to revise the nutritional requirements of calves to set them up to become high-producing and resilient animals.

We recognise that there are many ways to feed calves, with this being just one method. Our suggestions being in line with Dairy Australia's "Rearing healthy calves –2nd edition" document along with other noted references throughout (Dairy Australia, 2025).

Firstly, colostrum. Theres no replacer quite as good.
Calves are born devoid of antibodies (immune proteins) in their blood stream. This is provided to them through the first secretion of milk from the cow, the colostrum.

The 4 pillars to colostrum management:

Timing: It's vital that all calves, including heifer replacements and non-replacements, receive colostrum within their first 24 hours of life to avoid a failure of passive transfer (AVA, 2009).

Beyond this, their gut lining closes over and the large antibodies in colostrum can no longer enter their blood system, leaving them vulnerable. It is recommended that calves are fed good quality colostrum for the first 3 - 5 days of life.

Volume: The typical Holstein calf should receive 3L of good quality colostrum within the first 12 hours, followed by another 3L in the next 12-hour period. Check the volume of your stomach tube bottle if feeding by this method (1.8L is not sufficient).

Ideally this colostrum is warmed to 36-38 degrees. This volume is repeated for the subsequent 2 days.

Quality of colostrum: This relates to the concentration of antibodies (immune proteins) per litre.

There are many factors that can reduce a cow's colostrum, such as short dry period, age and breed of the dam, and delay to first milking, amongst others. A simple and effective way to measure the colostrum quality is to use a Brix refractometer. A Brix can be purchased from the veterinary practice, providing vital information about whether the colostrum is suitable for Day 1 calves.

Colostrum with a Brix 22% density is considered good quality colostrum, suitable for Day 1 calves.

It is a good practice to continue to feeding colostrum or transition milk to calves for the from Day 2 to Day 5 as the antibiotics present in the colostrum or milk can help bind bacteria in the gut.

Contamination: Ensure collection buckets are cleaned and refrain from using 'hospital cow' buckets for colostrum purpose. Refrigerate excess colostrum within 1 hour of collection, as bacterial load can double every 20 mins if left at room temperature. Storage in this manner is suitable for 48 hours.

Discard any visibly contaminated colostrum and refrain from pooling colostrum from multiple cows. As convenient as this may be, mixing will dilute any high-quality colostrum and contribute to mixing of bacteria.

A recent study undertaken from the Northern Victoria found that just 47% of dairy farms are providing colostrum with correct concentration of antibodies and only 42% of farms provided colostrum with above acceptable levels of bacteria. These, points highlight that there is considerable potential for improvement in colostrum management in our region.

Specifically, with the focus on testing your colostrum for correct protein content and setting hygienic practices to provide your calves with the best start in life.

Here are some additional tips to improving the colostrum for your calves:

- Remember to vaccinate cows 2-6 weeks before calving to ensure the colostrum contains sufficient antibodies. Common vaccines administered pre-calving include 7in1 and Scoursheild/Roatvec-corona.
- Collect colostrum as quickly as reasonably possible from the calved cow into freshly cleaned buckets.
- Maintain adequate records of which calves have had their intake of colostrum.

Secondly, how much milk should we feed them?

Note: We recognise that there are many different milk feeding strategies being adopted on dairy farms in our region. Below is a guide.

Calves need a minimum of 10% of their body weight in litres of milk per day. This often equates to 2L in the morning and 2L in the evening for a 40kg calf. This milk should be fed at the same time and temperature (35-38 degrees or cold, consistency is key) each day and be of good quality (refrain from feeding sick cow milk to calves, as this can promote antimicrobial resistance and contamination in sale calves).

When feeding young calves, or weaker calves, reduced volumes to 1L servings at increased frequency (3-4 times per day).

Modern approaches to calf-rearing suggest that the 10% approach does not provide sufficient energy from optimal growth, which is especially important in the first 2-4 weeks of life. During this time there is limited ability of the gut to absorb nutrients from grain, which might limit their growth during this period if underfed.

Underfeeding calves in this critical growth period are shown to have higher rates of disease, reduced immune function, and higher mortalities. A growing body of evidence suggests that early-life nutrition not only supports the animal to physically grow, but also the expression of important genes, such as udder development, milk production, and potential fertility improvements.

Dairy Australia suggests that heifers which are 50kg heavier at calving produce at least 1,000L more litres of milk in their first lactation. Therefore, it is important to feed calves for growth in this early period to improve their susceptibility to disease and improve the profitability of your business.

Instead, consider feeding 40kg calves 17% of their liveweight per day (7L per day across 2 feeds) and continue this until approach until weaning.

The bottom line is that increasing early-life milk feeding can reduce the susceptibility to disease, increase daily weight gains, and potentially increase the expression of desirable genetic traits in your animals, compared with calves that are not fully-fed.

Thirdly, when to wean?

Having *ad lib* grain available for calves can increase the speed that the rumen develops to process vegetative matter, resulting in earlier weaning. Calves should only be weaned off milk when they are consuming >1kg of grain per animal per day for at least 3 consecutive days. This indicates that the calves' have adequate rumen development and that they are ready to be wean. This often coincides with the calves being around 100kgs body weight.

Lastly, and most importantly, water!

From Day 1, always have clean water available which is checked and replenished daily.