

WINGHAM & VALLEY VETS

Large Animal Newsletter

June 2017

Volume 3

Colostrum management: critical to calf health

Calves are born with no natural immunity and take 3-4 weeks to develop any disease resistance, so colostrum intake is fundamentally important for the health and survival of calves. Colostrum is the first milk that is produced by a cow or heifer after calving. It has very high levels of immunoglobulins & antibodies (IgG), which enable calves to fight infection in the first few weeks of life. Calves left

calving. Jersey cows usually have the highest IgG concentration and Holsteins the lowest. Milk fresh cows out as soon as possible after calving (twice daily) to ensure the best possible colostrum is fed. We recommend investing in a **Brix refractometer** which gives a good indication of colostrum quality. Store and feed colostrum that is of

Successful calf rearing requires good colostrum management, involving 3 key factors: timing, quality and quantity. Don't leave colostrum intake up to chance!

to suckle the dam are at greater risk of low IgG absorption, and so are more likely to become sick and die.

The **three key factors** are:

Timing: after birth, calf intestines only absorb antibodies for 12-24 hours. The earlier a calf gets colostrum, the more antibodies will be absorbed. After 24 hours, 'gut closure' occurs and the calf can absorb no more IgG. The single most important factor to ensure calves gain adequate immunity, is to feed colostrum quickly after birth. If the first colostrum feed occurs more than 12 hours after birth, a single feed is never enough.

Quality: IgG concentration will vary significantly between cows and colostrum quality rapidly declines in the udder after

proven high quality. See page 3 for information on using a Brix refractometer.



Quantity: if feeding high quality colostrum, lower volumes are required to achieve adequate immunity. If using poor colostrum, more will have to be fed to transfer enough antibodies. Calves receiving larger volumes of colostrum at birth have less veterinary costs in the pre-weaning period and produce more milk in their first and second lactations. Always feed a **minimum of 3L** colostrum to every calf or feed 10% of bodyweight to larger calves >30kg.

Cases of the Month



Acute Grain Poisoning
Uterine Torsion
Calf Pneumonia
Bone infection & pathological fracture (horse)
White line disease
Listeriosis
Left displaced abomasum
Clostridial disease (calves)

Run Dates



Krambach: every Tuesday
Oxley Island: fourth Thursday of every month
Thurs 22nd June
Thurs 27th July
Cooperbrook, Lansdowne & Hannam Vale: third Thursday of every month
Thurs 15th June
Thurs 20th July

To book a job, please call us by 5pm the day before a run.

Emergencies will be accommodated.

We are considering offering a Comboyne run – please call us to register your interest.

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Upcoming Events



Cattle Lameness Workshop coming soon!

Hendra season is approaching

Winter tends to be the peak season for Hendra outbreaks, although cases have occurred year-round. Most Hendra cases occur in June, July and August but there was a case in QLD last month. Concerningly, the flying fox colony in Wingham brush has some of the highest viral loads of Hendra virus in Australia. Although initially considered a QLD problem, Hendra virus appears to be steadily moving down the Eastern coast of Australia, with an outbreak occurring as far south as Kempsey on the Mid North Coast.

The flying fox colony in Wingham Brush has some of the highest viral loads of Hendra virus in Australia. Hendra boosters are now given annually so keeping your horse up to date with their Hendra vaccination is more affordable than ever

The fatality rate in humans infected with Hendra virus is 60%, with survivors often suffering permanent, debilitating neurological problems. Since the early clinical signs of Hendra virus infection in a horse can be very mild, often mimicking a viral colic, horse owners, handlers and veterinarians are at greatest risk of contracting the disease.

Reducing the risk of Hendra virus:

Vaccination is the only way horse owners can eliminate the Hendra risk to their family, their horse and themselves.

Extensive peer-reviewed research has been conducted into the Hendra vaccine and proven it to be safe and effective in preventing Hendra virus in horses. The reaction rate is reported to be 0.3% (usually localised swelling at the injection site). This means that for every 1000 horses administered a Hendra vaccine, 3 will have a reaction (almost always mild and transient). In addition to vaccination, horse owners should keep their horses away from flowering and fruiting trees which are attractive to bats. Don't place feed and water containers under trees and ideally cover them so that they cannot be contaminated from above.

There is a lot of misinformation on the internet about the Hendra vaccination. This has been disastrous for the safety of horse owners and equine veterinarians in NSW and QLD. We would urge every horse owner to please carefully consider the scientific research and data published by reputable sources before deciding not to vaccinate their horse. If you have any questions or concerns, please contact us and we will be happy to chat to you.



In the spotlight: Retained Foetal Membranes

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After calving, foetal membranes are usually expelled within 8hrs. If they have not been passed within 24hrs, we describe the condition as retained foetal membranes (RFM). RFM cows have increased risk of metritis, mastitis, ketosis and LDA. Any cow with RFM should be closely monitored.

We do not get too concerned about RFM for 2-3 days post calving. If they are still retained at 4 days, we recommend a vet visit to remove them and to assess the cow for infection (metritis occurs in 25-50% of RFM cases). After RFM, the pregnancy rate at next joining decreases by 15%. Overall incidence of RFM is ~8%, but this can vary between 4-40% dependent on management factors. Record all cows with RFM and if the herd incidence is over 10%, we recommend a herd health consultation.

After calving, the cow's immune system destroys the unions between the placenta and uterus, allowing the membranes to come away. If the immune system is weak, it fails to degrade the unions and RFM occurs. Important factors affecting the likelihood of developing RFM are:

- Blood calcium levels: ensure appropriated dietary cation-anion difference (DCAD)
- Mineral or vitamin deficiency: ensure a balanced dry cow ration
- Excessive bodyweight loss: near the end of the dry period provide easy access to palatable food to stimulate appetite
- Quality silages: avoid exposure to mould and mycotoxins
- Infection: Brucellosis, Leptospirosis, IBR, pestivirus
- Difficult birth, twins, stillbirth, abortion and excessive stress or obesity

Don't pull the membranes out. Trimming the foetal membranes may decrease bacterial contamination, however there will then be less weight and less constant gentle traction encouraging the membranes to come away.

Brix Refractometer: a key ingredient for successful colostrum management

Brix refractometers are easy to use, affordable, and allow farmers to grade their colostrum, instead of leaving it up to chance. Good quality colostrum should have an IgG (antibody) level of at least 50g/L – this equates to a reading of 22% on a Brix refractometer – so any colostrum sample measuring greater than 22% is of adequate quality.

Where can I buy one? They are readily available online (brewery stores or eBay) for as little as \$20.
How do I use it?

1. Milk a colostrum sample from the cow into a bucket
2. Use a pipette or syringe to place 1-2 drops on the glass prism
3. Press down the plastic cover plate so the sample spreads out
4. Hold the refractometer up to the light and look through the eyepiece
5. The eyepiece can be rotated to bring the scale into focus
6. Read the middle scale – good quality colostrum should be over 22%, excellent quality colostrum may be off the scale and appears as a blue line at the top of the scale
7. Clean and dry the prism after use

Avoid pooling colostrum, but if this is unavoidable, try to only mix like with like – i.e. only mix colostrum reading higher than 22% with other colostrum also reading above 22%. Likewise, only mix poor quality colostrum together. Label colostrum clearly with the date of collection and grading: Grade 1 (best quality >22%) or Grade 2 (poor quality <22%).

Feeding Fortified Milk to calves: potential pitfalls

Several dairies in the Manning Valley are feeding their replacement heifer calves milk fortified by adding additional milk powder. This can result in accelerated growth rates which can result in improved fertility and production as mature heifers and adult cows. However, when feeding fortified milk, the % of milk solids (fat and protein) is vitally important. Feeding fortified milk with too high a milk solid percentage can result in overgrowth of Clostridial bacteria in the gut, leading to acute onset bloat and death. Even a 1% excess can be sufficient to cause illness and potentially losses. To safely feed fortified milk, the % milk solids must not exceed 19% - if this happens, farmers can expect losses. In the case we saw recently, fortified milk had been fed for several years with no change in the ratio of milk powder to fresh milk, except that fresh milk had been substituted with colostrum which has a much higher protein %. This resulted in one death and several sick bloated calves – luckily, we identified the problem and could arrest it before any further deaths occurred. The key message is: although fortified milk feeding can be beneficial for calf growth rates, it can be dangerous if you don't pay close attention to the total milk solids % and therefore should not be attempted without close consultation with your herd health veterinarian. If you are currently feeding fortified milk and you are concerned the milk solids could be too high, a Brix refractometer can be a handy (crude) method of determining the total milk solids % in your fortified milk. It will tend to read 2% lower than the true milk solid %, so if the reading is 17% or higher on a Brix refractometer, you should be concerned and contact us to discuss further.



Don't forget your horse's Winter worming!

We recommend strategic worming programs for horses that focus on deworming four times a year, including once in Winter.

We currently have a special price on Equest plus tape, making deworming more affordable than ever. We also offer a faecal egg count and a tube of Equest plus Tape for the special bundled price of \$43. Single tubes of Equest plus tape are available for only \$23. We only have limited numbers so be sure you don't miss out.

Free Trace Element Testing still available!

We are getting some interesting results from our trace element testing in the Manning Valley and after our last newsletter, we have performed a significant number of Selenium, Copper, Cobalamin assays on various herds throughout the district. Many of the herds we are sampling are significantly deficient in Selenium, which can have wide-reaching effects on growth and fertility. Clinical signs of Selenium deficiency include: suboptimal milk production, reduced fertility, retained foetal membranes, mastitis, abortions, perinatal death and premature or weak calves. If you are having growth or fertility problems in your herd, or if you are considering supplementing your herd with Copper, Selenium or Cobalamin, please contact the clinic to arrange herd testing - testing is free, you will only pay travel and Vet time to collect the samples.

Nymphomaniac Cows: everything you wanted to know

Our last newsletter prompted a lot of chuckles from clients who found themselves wondering: "what the heck is a nymphomaniac cow?" Thankfully a nymphomaniac cow would not have been confined to a 1950's lunatic asylum nor should she strike fear into the heart of an unsuspecting farmer who takes her fancy - the

term nymphomaniac cow refers to a cow with cystic ovaries, which causes her to cycle (come on heat) far more frequently than she should. Because this results in frequent displays of sexual behavior such as mounting other cows, they are described as nymphomaniacs. Cystic cows do cause headaches for farmers as their milk production decreases, they are difficult to get in calf and any delay in conception reduces farm profitability. Moreover, it may indicate a management problem at a herd level if farmers are getting high numbers of cystic cows. The following factors all predispose to the development of cystic ovarian disease:

- Metabolic disease e.g. ketosis or acidosis
- Negative energy balance
- High productivity & stress
- Dystocia, retained placenta or endometritis
- Genetics

The treatment includes:

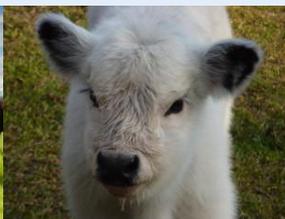
1. Correction of underlying nutritional and metabolic disorders
2. Hormonal treatment leading to resumption of cyclic ovarian activity -this depends on the type of cyst present (follicular or luteal).

If you are having problems with cystic cows, we recommend a herd health consultation to treat the cows and get them cycling again, and to identify management issues that could be contributing.

Equine & Cattle Services

Dairy Herd Health Programmes
ACV Accredited Pregnancy Testing
Bull Breeding Soundness Exams
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