

Welcome to the July edition of Tauranga Vets, Large Animal Newsletter. This month's articles focus on reproduction with Phil Rennie writing an article about Milk Fever and Staggers. Phil talks about the origin of these conditions, and summarizes treatment options. We also cover Foaling and the Golden Rules of Calving. Sit back, grab a drink and we hope that you enjoy the read.

Foaling (Part I: A Top 10 to watch out for in the lead up...)



For expectant owners, this can be a stressful time, mostly, in anticipation of what could go wrong. So, here are a few pointers to help reduce stress and lead to a successful outcome.

1. Due date: gestation is 11 months but some mares can go over 12 month's gestation without a problem. So, if you have a last service date to work from, don't panic. If the mare seems otherwise bright and well, be patient. Overdue is rarely a concern in horses. Conversely, if you have a reliable 'last service' date and your foal is born before 320 days it is considered premature. Even if it looks ok, a vet check and IgG test is highly recommended as these are high risk foals.

2. Vaccinations: make sure the mare is vaccinated for tetanus (life threatening) and strangles (common) at the very least. If a booster is required, make sure this is done before 10 months gestation to allow enough time to build up anti-body levels for the colostrum. If the mare is foaling on a stud or with a large number of other horses in contact, consider vaccinating your mare against Herpes abortion. There are different vaccines available but all require 2-3 injections a month or two apart during mid gestation so now is the time to do this.

3. Running milk: is a red flag. This often occurs mid to late gestation and is typically associated with a placentitis or a problem with the foal. If

mares have been running milk for several days prior to foaling, while the foal may appear unaffected at birth, the colostrum wont be: most of it has 'run out' so antibody levels left in the new milk will be poor, putting new born foals at risk. The practice has a sugar refractometer to measure antibody levels in colostrum if in doubt or antibody transfer can be checked by measuring immunoglobulin levels in the foal (IGG test) with a blood test after 14 hours of age (recommended).

4. Vaginal discharge: This should always be investigated. Mares can develop vaginal haemorrhoids during pregnancy that may bleed (alarming) but poses little risk to the pregnancy. On the other hand, a milky or dirty discharge is more likely to be associated with a placentitis or foetal death.

5. Caslick: if your mare has had a caslick as part of the breeding process (vulval lips partially closed), this should be opened by a veterinarian within a few weeks of her due date to avoid uncontrollable tearing during foaling.

6. Waxing up: refers to the final mammary development in the last 24-48 hours prior to foaling. The mammary gland enlarges further, small waxy discharge may be apparent at the teat ends and vulval lips slacken. Maiden mares are less reliable with these signs and may give no warning. They appear to 'wax up' after they've foaled! The take home message is don't worry if your mare hasn't obviously waxed up prior to foaling. Nature takes care of things in the majority of cases.

7. Colic: prior to and shortly after foaling, mares are susceptible to a number of unique causes of colic that can be life-threatening for both mare

and foal. Don't delay: call your vet!

8. Parturition: after the waters have broken this is a rapid and powerful process in mares. If stage 2 (delivery) isn't over in 60 minutes, there's something wrong: call your vet for assistance and THEN have a feel yourself if you are confident: at least check there are two front feet (toes up) presented and a nose. If you see a dark red balloon appear before any foal parts are visible; this is a 'red bag' or early placental separation. This carries a high risk of hypoxic damage to the foal or foetal death. Call your vet, THEN if confident, you can cut with a knife or scissors to access the foal (you're cutting the thick chorion part of the placenta that is normally ruptured by the foal) and assist foaling. The sooner the foal is out and able to breathe the better: once the placenta separates the foal receives no oxygen until it can breathe.

9. Retained placenta: stage 3 (placental delivery) should be complete within 6-12 hours of foaling; typically sooner. Unlike cows, mares are much more prone to complications associated with retained foetal membranes and need more urgent attention. Retained foetal membranes can also be associated with other pre- and post-partum complications such as placentitis and uterine tears so need examining carefully. Check the

placenta or keep it for your vet to make sure it's all there. A retained horn (nothing visible on the outside) is not uncommon. Your mare will need treatment to retrieve this.

10. Foal health:
See Part II in August ☺



- David Howes (VetMB, MACVSc)

Winners of the Bayer, Face-Guard competition

We're pleased to announce that Marian and Colin Merrin, are the Tauranga Veterinary Services Ltd, winners of the Bayer, Face-Guard competition.

Marian and Colin are dry stock farmers within the Te Puna area and are seen here with Erin Piddick, from our Te Puna Clinic and David McDonnell, our Managing Director. Colin and Marian won \$500.00 worth of Hunting and Fishing Vouchers. Congratulations Colin and Marian!



Prevention of milk fever & grass staggers

During the dry period cows' metabolism gradually builds and then increases quickly once lactation starts. This is most notably seen with the demand for 2 key "macro" minerals; calcium (Ca) and Magnesium (Mg).

Calcium is an essential component of the skeleton and serves a role in muscle contractions, blood coagulation, enzyme activity and hormonal secretion. Demands rise rapidly when lactation starts and can result in milk fever cases as well as subclinical problems. Subclinical hypocalcaemia (low calcium) has been linked to "sad cow syndrome", retained membranes and infertility.

Magnesium is required for the production of hormones that are important for the absorption of calcium from the gut and the mobilisation of calcium from bone. Low magnesium levels can suppress a cow's appetite as well as cause irritability in the herd and reduce milk let down.

Fortunately magnesium supplementation prevents grass staggers and helps the cow to mobilise her calcium stores to prevent milk fever. Cows do not store magnesium therefore daily dosing is required. This means that during a patch of adverse weather and the cows miss out on their daily dose, you can expect some clinical cases. Lush, fast growing spring pasture is often very low in magnesium. Calcium and magnesium demands are exceptionally high in the weeks surrounding calving for calf growth and lactation. High producing, older cows are often most susceptible to deficiency. It is best to avoid supplementing calcium in the three weeks before calving as the cow needs to prime her body to mobilise her own calcium stores. Eg. Additional lime flour should be stopped.

Magnesium supplementation should begin about 1 month prior to the start of calving and continue until peak milk is achieved, which is normally up to 4-6 weeks after the last cow has calved. Supplementation can be achieved in a variety of ways:

- Dusting pasture with magnesium oxide at a rate of around 100g per cow per day
- Drenching with magnesium oxide at a rate of 30-40g per cow per day.
- Maize silage is naturally very low in magnesium, calcium and salt, so needs to be balanced by adding these elements. If cows are eating a lot of supplement, then it is possible to add magnesium to this feed at a rate of 60g per cow per day. Note that the 60g is additional to the base magnesium that is added to the maize silage to help balance the ration value.
- Magnesium sulphate or chloride may also be added to the water supply, but care must be taken not to make the water unpalatable, as magnesium tastes bitter. Flavour enhancers may assist.
- Slow release magnesium capsules are also available, but these alone will not provide enough. They may be indicated for cows at grazing where dusting and water supplementation are impractical.

The options above should allow for typically no more than 2-3% of your cows succumbing to metabolic disease. If there's more than that talk to your local vet for specific management around calving to prevent problems getting out of hand.

- Phil Rennie (BVSc, MACVSc)

Golden Rules of Calving Cows...



This is a thoughtful musing from a large animal vet about calving cows.

- Select paddocks that have not had effluent spread, good fencing, near the house, sheds or yards and away from waterways. Good contour.
- Observation...observation...observation. Check Springers at least three times daily. Examine cows in yards/shed that are isolated from the mob, not eating or moving onto a new break, lethargic, not up, straining or tucked up in abdomen, or eyes sunken.
- Select Springing mobs on basis of expected calving date. Check and examine any cow that is prolonged in Springing and not calved by due date. Especially tail up and in abdominal discomfort....it could be a 'twisted uterus'.
- Examine a cow that is suspected to be calving that has not progressed beyond Stage One after 2-6 hours. Stage One looks like the cow or heifer will distance herself from the herd, showing signs of restlessness and a tendency to lie down and get up frequently. These signs are often more apparent in first-calf heifers than they are in mature cows.
- Examine cows that are in Stage Two when they are visibly contracting the muscles of their abdomen in an effort to push the calf through the birth canal for a protracted period. Stage Two normally can last from 30 minutes to 2 hours. Heifers can be at the longer end.
- A suitable bail, race or head crush is ideal for calving. It is important clean water is available and the facility is concreted or clean with not too much mud/faeces for hygiene reasons. Ensure the cow has a quick release escape if she goes down.
- A bucket, chains/calving ropes and a calving jack/ winch are advised. Lubricant and arm length gloves.
- Most presentations are with the head/feet triad first and a head back is common. Please refer to Table 1 of recorded veterinary attendances. If a manipulation and traction of no more than two operators is needed with feet/front legs presented, then it is safe to progress.

Table 1: Cause of calving event

Fetal-associated causes (calf)	Number	%
Fetal head back	2199	22.5
Fetal leg(s) back	1312	13.4
Breech presentation	924	9.4
Posterior fetal presentation	711	7.3
Multiple pregnancy	458	4.7
Schistosoma reflexus (deformed 'inside-out')	181	1.8
Fetal ascites ('water belly')	104	1.1
Maternal-associated causes (mother)	Number	%
Feto-pelvic disproportion ('large calf')	1484	15.2
Vagina/cervix dilation fail	1080	11.0
Twisted uterus	709	7.2

- When to call a vet:
 - Suspected twisted uterus
 - Breech presentation (Tail only seen from the vulva)
 - Swollen head (no legs)
 - Intestines/deformed calf seen or felt
 - No progress after manipulation and traction after trying for 20-40 minutes.
 - Then leave - don't keep trying' when the vet is on the way.
- Treat cow with antibiotics, oxytocin, and preventative Calcium drenches/salts and energy supplements. Examine and treat 14d later with intrauterine antibiotic to help conception.

CHECKLIST

- Mineral Testing
- Herd Drench with Eprinex Pre calving
- Organise Spring products
- Rotovirus vaccine 3-12 weeks pre calving
- Magnesium dusting on pastures 4 -6 weeks pre calving
- Nitrate Alert in annual ryegrass/oats /sorghum - test before grazing

We hope you have enjoyed this latest edition of the Tauranga, Katikati, Te Puna and Papamoa Village Vets newsletter

Take a moment to visit the Tauranga Vets Facebook page, www.facebook.com/taurangavets, and Like what you see. We love your feedback and are always happy to answer your animal health questions.



Tauranga Vets
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