



VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

JULY 2011



Above: Some reminders from cheeky cow no 83

Reminders

A request from us that if you've had any staff changes on-farm, please give us a ring or pop in so that we can update our records.

From 1st October 2010, Prescription Animal Remedies (PARs) were renamed Restricted Veterinary Medicines (RVMs). This means that your annual PAR consult will now be your annual RVM consult - a bit of a mouthful, but we don't make the rules!

A reminder that RVMs are a group of veterinary medicines registered under the Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997 that must be prescribed by a veterinarian for use on animals owned or managed by bona fide clients of that veterinarian - ie they cannot be sold over-the-counter without veterinary approval.

Pre-lamb treatment of ewes with iodine

Hamish Pike

In New Zealand, most occurrences of goitre seem to be associated with goitrogens in the feed which block the uptake of inorganic iodide by the thyroid gland. Plants of the *Brassica* species i.e. kales (also low in iodine), cabbages, Brussels sprouts and broccoli may contain high levels of goitrogens. Certain NZ cultivars of clover also contain high levels of goitrogens.

Iodine deficiency tends to occur in high rainfall areas such as the Manawatu. Within each type of feed, considerable variation occurs from year to year which is reflected in the incidence and severity of goitre in newborn lambs born to ewes grazing such feed.

Interestingly, the ingestion of soil in years of drought or high-stocking rates is said to reduce the incidence of goitre.

A characteristic sign of iodine deficiency is an enlarged thyroid gland in the newborn lamb (goitre), while subclinical iodine deficiency in the ewe leads to a decreased twinning rate, an increased neonatal mortality, low birth weights and poorer wool production.

It is recommended to drench ewes with potassium iodide 8 and 4 weeks pre-lambing for the prevention of iodine deficiency. However, experience in the field suggests that if you are wishing to dose the ewes once only, then treating around mid-pregnancy (i.e. at scanning) is best rather than closer to lambing.

This is because severe iodine deficiency in ewes causes reduction in foetal brain development and body weight from as early as 70 days gestation (i.e. mid-pregnancy) to lambing.

Another option, particularly if feeding a winter *Brassica* crop is Flexidine. Flexidine is an oily injection containing organically bound iodine providing a long-term depot of iodine. It is recommended to treat ewes 1 month before mating (at least 2 months prior to feeding crop), or not less than 2 months before lambing.



Totally Vets current stock health

Sheep & Beef

The black scour worm (*Trichostrongylus* spp) continues to be an issue in young sheep this season. Monitor faecal egg counts and liveweight gains to give you confidence.

Be aware that crops are still showing up with high levels of nitrates. If you have

concerns about this, we can get your crop tested - a shopping bag full of the crop to be tested is all we need.

Dairy

The preparation for calving is largely over... it's now game on (again)! The decision to milk on well into May and

Metabolic disease in ewes

Hamish Pike

Milk fever (hypocalcaemia) and sleepy sickness (twin lamb disease) are metabolic diseases in sheep mostly attributed to under-nutrition. You will usually see these diseases affecting in-lamb ewes in the last few weeks before lambing.

Sudden changes in feed, either feed type or grazing regime, will cause a check in feeding which can lead to either of these problems. Holding for crutching or shearing heavily pregnant ewes, inclement weather, excessive droving or diseases reducing intake can also trigger outbreaks.

Ewes with milk fever will initially stagger about then go down in the sitting position with their head to the side, and appear in a comatosed state. Those left untreated will go into a deep coma after 24 hours and die.

The response to treatment for milk fever is usually rapid (within half an hour) unless complicated by twin lamb disease.

Sleepy sickness occurs commonly after a period of feed restriction, often to ewes late in pregnancy bearing multiple lambs. Clinical signs are similar to milk fever but usually slower to progress. Affected ewes will often

appear depressed and lag behind initially. Apparent blindness may also be present. Later ewes may become staggery, twitchy around the ears, eyes and muzzle, and froth at the mouth. Some may sit in a star-gazing position before going down into a comatosed state, and after several days, eventually die.

The response to treatment for sleepy sickness is variable, and often disappointing. Sheep with the characteristic 'razor back' and wool pull are very unlikely to respond to therapy. If the ewe is still eating, the prognosis is more favourable, but it is hopeless if she is down and has stopped eating.

It is important to note that lambs born from recovered ewes are commonly stillborn (sleepy sickness), or have poor survival rates (milk fever).

TREATMENT OPTIONS

Milk fever - 100-150ml under the skin of the neck of Calpro 250 once only.

Sleepy Sickness - ENERGY in the form of Ewelife (160ml orally 3-6 times daily) or Ketol (120ml orally daily).

Oral fluids and electrolytes (very important due to dehydration) e.g. Revive (2L orally 2-3 times daily). Ensure access to water at all times.

In valuable animals, veterinary attention is required.

Please consult our team of veterinarians if you have any questions with regards to treatment and prevention.



HA HA The new boss

If you've ever worked for a boss who reacts before getting the facts and thinking things through, you will love this!

Arcelor-Mittal Steel, feeling it was time for a shakeup, hired a new CEO.

The new boss was determined to rid the company of all slackers.

On a tour of the facilities, the CEO noticed a guy leaning against a wall. The room was full of workers and he wanted to let them know that he meant business. He asked the guy, "How much money do you make a week?"

A little surprised, the young man looked at him and said, "I make \$400 a week. Why?"

The CEO said, "Wait right here." He walked back to his office, came back in two minutes, and handed the guy \$1,600 in cash and said, "Here's four weeks' pay. Now GET OUT and don't come back."

Feeling pretty good about himself, the CEO looked around the room and asked, "Does anyone want to tell me what that goof-ball did here?"

From across the room a voice said, "delivered the pizza from Domino's."

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even June will have been vindicated if cow condition has not been compromised and calving targets are met. Why not get an independent assessment of how close the herd comes to that elusive BCS 5.0 mark from one of the dairy vet team? Don't neglect cows wintering off. The money being paid for winter grazing should motivate you to ensure the job is being done very well - don't

wait until it's too late and any good work is irreversibly undone.

Transition feeding principles must now be applied in the paddock - the mission is to maintain appetite at all times. See our June newsletter article on transition time.

Undertake other important cost and labour-saving activities: eartags all in, Rotavec®Corona vaccination, Teatseal heifers, train heifers to the shed, train

milking staff in use of RMT paddle, prepare calf sheds and feeding equipment, review your system for colostrum collection, storage, feeding etc.

The lateness of dry-off is one reason you must be on the ball to manage early season inhibitory grade risks. Refer to treatment dates of individual cows, fully understand and apply withholding periods, and comply with all supply start-up regulations from your processor.

Are your bulls sound?

Joao Dib & Guy Haynes

Bulls can fail to mate successfully for many different reasons. They can have libido issues, back and feet problems, penile defects and poor-quality sperm, all of which can lead to reduced pregnancy rates in beef and dairy herds. Many of the defects seen can be acquired, so just because a bull worked well last season and got his cows in calf, it doesn't necessary follow that he will do the same again.

There are several different ways to evaluate a bull's fertility. They all have their relative

merits but at Totally Vets, we believe the most effective and comprehensive method is to collect semen from the bull using an artificial vagina (AV) while a cow or heifer in a bale is mounted. By using this method, all the aspects of bull fertility mentioned above can be evaluated.

This may sound like a big issue to carry out but all that you need is a decent set of yards and a cow or heifer that is preferably on heat (but not essential). We have a portable bale to put the heifer or cow in that we can fit just about anywhere. We can test from a single bull up to fifty or more in one session and can get through in the region of 20 per hour if they are working well. The efficiency of the testing can be improved considerably with some preparatory work on the bulls beforehand.

The other methods commonly used to evaluate bulls are the Blockey test and electro-ejaculation. With the Blockey test, a semen sample is not collected for evaluation; when testing large numbers of bulls, a heifer or cow is served many times which can

have welfare implications for the heifer if not closely monitored. The Blockey test is weighted heavily towards libido and requires multiple serves by a bull in a given timeframe. With electro-ejaculation, the penis is often not seen and a bull's libido and ability to mount are not evaluated.

Since we have been using our preferred method of evaluation, collecting with an AV, we have identified a few issues that would almost certainly have been missed if one of the other methods had been used. This was recently highlighted when we were asked to investigate a high empty rate in some beef cows. Of five bulls that had previously passed a Blockey test (i.e. demonstrated an ability to mount and serve) three had very poor semen when collected with an AV and evaluated. This poor semen was almost certainly the cause of the fertility issue.

No method of evaluation is perfect but we believe that the method we have adopted as our standard is the most comprehensive and welfare-friendly testing available. Please give us a call if you would like to find out more.





Winter feeding objectives and management in deer

Hamish Pike

Manawatu deer farmers are well prepared for this winter. Good pasture covers, both in terms of quality and quantity, have given farmers options with respect to weaning, and grazing and feed management. This bodes well for a productive season.

VENISON PRODUCTION

The objective is to achieve a maximum carcass weight (50kg) by 12 months of age.

Red stags should achieve a 60kg liveweight by their first winter (hinds 52kg), and by 12 months, 100kg liveweight. **Pasture should be**

of high quantity and quality throughout the year to achieve these targets. Any check in growth will affect the ultimate bodyweight.

To achieve maximum growth of young stock during winter, pasture covers need to be maintained above 1600kg DM/ha. This will often only be achieved by a rotational grazing system. Adult deer should be grazed on a long rotation i.e. held back and fed supplements such as hay or baleage, whilst the weaners should be fed on a fast rotation and always preferentially fed.

HINDS

Post-mating, hinds need to have their bodyweight maintained during the winter unless they are in poor condition. **Lighter-conditioned hinds should be pulled out for priority feeding.** Hinds going into their second winter need to be fed at residuals of not less than 1200kg DM/ha.

Alternatively, if hinds are in very good condition in early winter, they can afford to drop a few kilogrammes before the spring feed comes away, and be fed a maintenance ration only (residuals of 600kg DM/ha) to reduce the likelihood of a feed deficit.

As spring approaches, bodyweight can increase again with increasing pasture availability. **Over-fatness must again be avoided leading up to calving.** To prevent over-fatness, continue to graze down to a low residual DM well into October, only allowing an increase in feed intake during the last part of October and into November prior to calving.

VELVETING STAGS

Peak requirements are immediately after the rut and during antler growth. **Post-rut nutrition influences future velvet weight.** Likewise, if stags are not fed well during antler growth, then maximum velvet weights will not be achieved.

During the spring when stags are casting their hard antler buttons, they should be examined weekly and sub-divided into future velvetting mobs; remember it takes 60 days from the time the button drops until harvesting and for management reasons, it is desirable to separate them early. If large mobs of stags are left together and sorted out only at the time of velvetting, there is considerable risk of damage to the velvet.

What's the goss?

We will all be very sad to see **Peter Aitken** go this month but wish him lots of happy times with **Rosie**, his bride-to-be. They are getting married on 23rd July in Fobbing St Michael, an ancient parish in Essex, in the

UK. The beautiful church there is renowned for its historic association with the smuggling trade! His last few weeks were not only busy with wedding preparations, but also with his Australian College exams. Good luck Pete - you will be missed by the team and your clients, and hope you come back soon!

Joao is off to Vietnam in mid-July for his three-month stint on-farm. He will relieve **Anita**, who will be back at the Palmerston

North clinic on 17 August after a visit to Thailand on the way home. In Anita's recent report, she gave an insight into the Vietnamese road code: "there doesn't seem to be any Vietnamese road rules - the only one being 'toot frantically and flick your lights when overtaking'. The drivers do some crazy things and I think it only works because they generally drive quite slowly. People are constantly cutting each other off and pushing

What on earth do vets know about soils?!

Ginny Dodunski

Well, certainly not as much as we know about animals, and we only know a bit about them! Which is why we recently had Dr Alec Mackay from AgResearch present two of our Monitor Farm groups. Alec leads the Soils and Land Use group at AgResearch, gave us a very clear reminder of the basis of our soils' productive capacity, and answered lots of questions - maybe some that you have too - so we thought it worth summarising part of his presentation here.

NITROGEN

- In general, the main nutrient driving pasture growth is nitrogen (N) - supplied by clover in the sward
- However clover-derived N sets a ceiling on total pasture grown; at AgResearch's Ballantrae hill country research unit, where extra N was added year-round to make it non-limiting, pasture production went from about 12.5T to nearly 20T per annum
- Pasture growth responses to individual applications of N are not dependant on good phosphorus levels

PHOSPHOROUS

- The High Fertility/Low Fertility Farmlets study at Ballantrae (1972-2004)

demonstrated the value of phosphorus (P) to our legume-based farming systems:

- Low Fert - 125kg super/ha/yr: Olsen P 10; 10su/Ha; pasture production 10T/yr
- Hi Fert - 625kg super/ha/yr for 5 years then 375kg/ha/yr since (+lime as required): Olsen P 55; 16su/Ha, pasture production 14T/yr
- Obviously the Hi Fert system described here would not be pursued on a conventional hill country farm; however, in the Hi Fert system it was measured that:
 - Pasture production started earlier in spring by several weeks and continued longer into the late autumn
 - There was a significant increase in the percentage of white clover and ryegrass
 - All slopes and aspects were grazed more evenly
 - Less need for breeding stock to 'tidy up' pastures
 - There were more than double the number of earthworms in the High Fert soils: more litter to feed on, acidity controlled by liming and sheep-only system (no treading damage from heavy cattle)
- As a comparison, another farmlet was set up where fertiliser was completely withheld; this farmlet has become unmanageable as stock will not graze the slopes and these are reverting to woody weeds

The above points demonstrate the value in maintaining a strong focus on good P levels where a clover-based pasture system is in place

WHAT AFFECTS P AVAILABILITY IN THE SOIL?

- Increased soil microbial activity does not lead to increased P levels

- Most applied P remains in the topsoil layer; it does not leach
- 75% of maintenance P requirements are needed not to replace P exported off the farm as product, but to 'replace' P redistributed by grazing animals via dung and urine!
- Soils that 'retain' P do so because of the inorganic reactions within the soil; there is no evidence to support any way of 'releasing' this tightly-held P; Alec: "If you want a legume system you have to maintain or increase P levels in the soil"
- Recent work shows soil which has been compacted via treading/heavy cropping has a higher optimum Olsen P - around 40 for intensively farmed sites on ash soils studied so far

SULPHUR

- Also required by clover
- Needs to be applied annually
- Applied sulphur is not available to the plant until it is mineralised in the organic fraction of the soil
- Once sulphur is mineralised it can also leach from the soil
- In years where P is not applied, there is not likely to be value in applying sulphur only in the hope of driving some clover growth - need to apply both

Alec also presented more information on soil testing, other measures of soil fertility, the use of 'humates' on soils under pasture, and soil biology. To read more, see the newsletter from the B+LNZ Manawatu Finishing Farms visit to AgResearch, available on the 'Monitor Farms' section of the [Totally Vets website](#).

each other off the road - amazingly, no one seems to get road rage. I suppose there's no point because they'd be angry all day!"

Our very own **Julie Christensen**, who is currently on maternity leave, displayed her own brand of mother-to-be rage when she discovered two people sitting in her car after she'd been shopping. After checking she'd actually got the right car, a 38-week pregnant Julie

managed to scare them off with just words, volume and tone!

While Julie enjoys her maternity leave, we welcome **Terri Landall** who joins the Feilding reception team, with **Anna** moving to the Palmerston North reception. Finally, very big congratulations to **Lindsay's** son **Matt** - now **Dr Rowe** - who recently graduated from Auckland University School of Medicine and is currently working in Gisborne.



Above: Vietnam dairy farm 1 (cow-housing sheds) with reservoir in the background

Calving... a quick reference

Leisa Norris-Spring

With spring fast approaching, a refresher on calving cows is probably timely. The key is to know what is **NORMAL** in order to recognise what is **ABNORMAL**, so firstly here's a quick overview of normal:

1. **NORMAL 1st stage labour** - Dilation of cervix
 - Cow uncomfortable. Behavioural signs include restlessness, picking at feed, stands with back arched and tailed raised, repeated lying down and standing up
 - Lasts for 6 hours (range 2-12 hours - longer in heifers)
 - Can be a variation in signs, so check calving date, see if springing up or has swollen vulva. Age of cow can be an influence as some older cows may give no indication, whereas heifers often show colic-like symptoms for 12 hours
2. **NORMAL 2nd stage of labour** - Period of straining and delivery
 - Starts with the onset of straining
 - Appearance of water bag/breaking of waters
 - Recumbent as head exits vulva

- Average time is 70 minutes (range 30 minutes to 4 hours)
3. **NORMAL 3rd stage of labour** - Passing of membranes
 - Usually within 8 hours
 - Longer than 24 hours is abnormal and indicates a retained foetal membrane (RFM)

So... **ABNORMAL** would be 1st stage longer than 6 hours or 2nd stage longer than 2 hours of pushing. If the labour appears abnormal and the cow and/or calf is valuable, then **CALL THE VET** immediately, otherwise:

- Clean the vulva and your hands and arms
- Use plenty of lubricant
- If the calf is not showing, start at **STEP 1**
- If the calf is poking out, start at **STEP 3**

STEP 1 Examine the vagina and see if it feels normal, check for any rips and tears or twisted uterus

STEP 2 Examine the cervix. Is it open, only partially open or is it a twisted uterus? Is she not really calving? Is it really colic?

STEP 3 Determine if the calf is alive by:

- Finger in mouth
- Pinch between the toes
- Gentle pressure on eye

Response by the calf to any of the above indicates the calf is alive so continue to calve the cow. If there is no response to any of the above, the calf is most likely dead. Provided the cow is healthy, continue to calve her. If she is looking sick or there is a bad smell **CALL THE VET**.

STEP 4 How is the calf presented? Make sure you know what you have before you pull

... if you have no idea what you are feeling, **CALL the VET!** Presentations are many and varied...

HEAD FIRST PRESENTATIONS:

- Head and 2 front legs = **NORMAL** = OK to pull
- Head and 1 front leg = leg back = needs correcting
- No head and 2 legs = head back = needs correcting
- Head and 2 legs but no response to traction = dog sitting posture/twins/foetal oversize (calf too big) = **CALL THE VET**

Tail end first presentations - abnormal:

- Tail and 2 back legs = backwards presentation = OK to pull
- Tail and bum = breech = difficult to correct without drugs, can rip the uterus easily without drugs = **CALL THE VET**

STEP 5 Will it fit through the pelvis? This is a judgement call that gets easier with experience but points to remember are:

- Feet and head must fit in the pelvis at the same time - don't pull if it won't fit!
- For traction, you can use a pulley or a calving jack - do **NOT** use uncontrolled pressure eg tractor, bike
- Calving paralysis more likely for longer calving
- **TEN MINUTE RULE** for pulling - more than 10 minutes is taking too long so **CALL THE VET** if:
 - No progress in 10 minutes
 - Very slow progress in 10 minutes
 - Not ready to pull in 10 minutes.

The silent terminator?

Paul Wiseman

Is low blood sugar the silent terminator in newborn calves?

Often a sick and scouring calf goes into a physiological shut down and collapse that can be hard to reverse.

WHAT DO THESE CALVES DIE OF?

Hypothermia?

Dehydration?

Toxaemia?

Hypoglycaemia ? (low blood sugar)

Each or all of them, singly or collectively, could account for the death of a calf and must form part of an effective treatment protocol.

Hypothermia - the chance of recovery from exposure is much greater with the use of an intra-peritoneal injection of 20% dextrose **before** they are warmed up. Warming when energy levels are already exhausted can even hasten death.

Hypoglycaemia - the liver stores glucose when there is excess and releases it when it's low. This is not automatic but is affected by the actions of hormones. Factors that increase the release of glucose-controlling

Managing early-season mastitis

Craig Tanner

Best practice guidelines for a trouble-free start to the season would include:

- Culling chronic mastitis offenders, cows with ongoing high somatic cell counts and those with suspect udder conformation
- Using dry-cow therapy appropriately in cows you are retaining
- Dealing effectively with dry period infections
- Teatsealing™ heifers
- Checking and fully servicing the milking plant, as well as acting on all recommendations
- Reviewing milk quality control policies and practices with all farm personnel

Further:

- Springing cows fed generously, and not calved down on effluent paddocks or muddy breaks
- Fresh cows come into the shed for complete milking out within 12 hours of calving
- Colostrum cows managed as a separate mob with milk inspected at least daily
- Milk from all quarters of all colostrum cows screened for suitability to enter the vat
- Once in the milking herd, vigilance is exercised at all levels to detect and act on any signs of infection

In spite of best efforts, mastitis remains a reality of milking cows. While wet weather will conspire to increase the risk, the extent of mastitis is often a function of how thoroughly the above principles are applied.

So what is 'best practice treatment' for clinical mastitis?

It is unrealistic to expect to 'cure' all infected quarters, but you can shift the odds in favour of a positive outcome:

- **Know your enemy** - collect sterile milk samples from the first 10-20 clinical cases of the season, before treatment, for bacterial culture
- **Detect clinicals EARLY** - 'if you do not look, you will not find!'
- **Treat aggressively** - NZ studies have established that more than 60% of mastitis over calving is due to *Strep uberis*. Unless milk culture results indicate otherwise, penicillin or its derivatives represents the best therapeutic approach
- As a **minimum**, administer 3 tubes of selected product per quarter at stated infusion interval (usually 12 hours)
- Be prepared to treat difficult infections for longer (6 tubes) provided progress is being made, but prolong milk withholding period on label and/or seek veterinary advice
- Use appropriate intramuscular drugs if more than one quarter is infected, especially in heifers and young cows, or where cow is sick due to mastitis
- Milk out infected quarter(s) completely, TWICE daily
- Use oxytocin to assist milk letdown and emptying of a swollen gland

- In the event of a poor response to initial treatment, develop a 2nd line treatment contingency in consultation with your veterinarian

Whenever dealing with clinical infections, be aware of the high risk of spread to 'clean' cows.

To minimise this:

- Milk infected cows separately and last - this applies especially if run with colostrum cows
- Decide on a management system and an identification system for treated cows to avoid mishaps that could result in costly inhibitory substance grades or having to dump precious milk
- Mix teat spray fresh daily at the HIGH mastitis risk rate, adding extra emollient at up to 15%

Record all details:

Review alongside herd test and other data to highlight:

- Patterns of infection - by age, by days in milk
- Completeness of cure
- Future options for treatment and control

Mastitis can be mastered! Dealing with early-season mastitis in a rational way will limit the short and long-term effects on the health, welfare and productivity of the herd.

At Totally Vets, we have the resources and the expertise to help. Talk to us today as an essential part of a strategy to ensure a high-quality food product leaves your farm everyday.

hormones are exercise, infections, and other stresses like cold or fright.

What happens when an adult with lots of body reserves falls off a boat and dies of hypothermia? They have ample glucose reserves to maintain body heat yet they die. Do they die from hypothermia or hypoglycaemia? It is like a fire box burning well and then the damper is closed off so that the fuel cannot be used due to a lack of oxygen (energy).

IS THIS WHAT'S HAPPENING IN THE 'FLAT' CALF WITH SCOURS?

The only practical therapy relies on oral therapy to address the dehydration and to try and maintain energy levels. Any additional fluids must be given quickly and cheaply.

A survey on a small number of scouring calves shows that the blood glucose reserves in these calves are nearly exhausted, so oral therapy may not

be enough to drive fluids and energy back into the cells.

A practical way to increase the recovery rate could be by injecting some dextrose intra-peritoneally, in addition to the usual oral replacement therapy.

Have Totally Vets veterinarians demonstrate this technique and let's see if we can stop the silent terminator.



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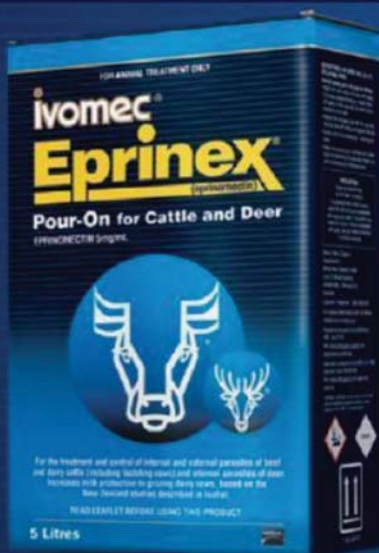
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