



# VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

AUGUST 2011



Above: Allie with the cow cake her children made for their cow-mad mum

## Introducing Allie Quinn

Allie is new to the Totally Vets team but no stranger to the Manawatu district.

Allie, husband John and children Sam and Grace have lived in the Pohangina Valley since 2002, though Sam was born on a dairy farm in Tokomaru and Grace was born in Palmerston North. Life is always busy, revolving around family, friends and a chaotic lifestyle menagerie!

In 2000, it seemed five years at Massey as a student just wasn't enough, so Allie stayed on a further five years working with Massey staff and students in production animal health. For the past few years Allie has worked for MAF which has involved a lot of time working away in Hawkes Bay and Wellington. She is delighted to be back in veterinary practice in the Manawatu.



**Craig Tanner**

**Infovet** is the most exciting, innovative, sophisticated software application ever developed for evaluating and monitoring health and productivity on New Zealand farms. And Totally Vets is bringing it to you ...

Motivated by the need to consolidate critical farm data in one place, the developers have worked collaboratively with milk processors (Fonterra), herd improvement organizations (LIC, Ambreed), veterinary software companies, and veterinary diagnostic laboratories to deliver a cutting-edge program.

The product, **Infovet**, provides farmers and their vets with a wealth of data at their fingertips, enabling detailed insights into herd health issues that drive farm profitability. This is the first step in developing and delivering solutions, especially for those animal health problems that are complex, costly and frustrating like mastitis, poor herd fertility, metabolic disease and lameness.

Data recording and preliminary analysis at pregnancy test time will be revolutionized. Why not gather and record body condition score data at the same time? Windows of opportunity for improving herd reproductive performance will open.

Better understand patterns of mastitis occurrence in your herd - by age, by days in milk, by month. Turn the annual 'drying off consult' into an 'annual mastitis review' that

clearly describes what happened during the season (without the need for a questionnaire), estimates the financial cost, prioritizes areas for improvement, and provides you with a real blueprint for positive change.

Pre-set health and production alerts (eg BTSCC, milk protein %) mean early 'red flags' are registered and acted upon sooner. **Infovet** delivers timely, accurate data that encourages better, more informed decision-making for improved outcomes.

Quickly and easily report on major disease incidences in the herd - milk fever, lameness, endometritis. Implement corrective strategies and monitor progress over time.

Powerful too is the ability to benchmark your data against others, nationally and locally, confident in the knowledge your data is fully secure and anonymous.

Need more convincing? How about there being no sign-up cost? The only commitment we ask of you is a willingness to invest in more thorough health data collection and entry. The more complete your MINDA records are, the more value **Infovet**, in conjunction with your Totally Vets veterinarian can provide.

For Totally Vets, **Infovet** represents an exciting way forward to a new level of information-based animal health services and tailored solutions for its farming clients. Take the journey with us...



# Totally Vets current stock health

## Sheep & Beef

On sheep & beef farms we have not seen too many of the problems that can come from well-conditioned ewes in late pregnancy; bearings and metabolic issues (milk fever, sleepy sickness) have been no worse than in an 'average' year so far. But as feed levels continue to drop while we wait for it to dry up and for pasture growth

to kick away, watch those well-conditioned girls carrying twins. Keep yarding times as short as possible, avoid sudden dietary changes especially onto lush fast-growing annual rye paddocks which can precipitate milk fever.

Nitrate levels have been high in both *Brassica* and forage cereal crops; get these checked or seek advice if you are yet to feed off new areas.



HA HA

## Talking dog for sale

A man sees a sign in front of a house: "Talking Dog for Sale."

He rings the bell and is shown to the backyard where a black mutt is just sitting there.

"You talk?" he asks.

"Yep," the mutt replies.

"So, what's your story?"

The mutt replies, "Well, I decided pretty young to make the most of this gift so joined the CIA who had me jetting around the world, sitting in rooms with spies, because no one figured a dog would be eavesdropping."

I was one of their most valuable spies for eight years. But the jetting around was really tiring, I wasn't getting any younger, so I changed to undercover security work at the airport, for which I was awarded lots of medals. Had a wife, puppies, and now I'm just retired."

The guy is amazed.

He goes back in and asks the owner what he wants for the dog. The owner says, "Ten bucks."

The guy replies, "This dog is amazing. Why on earth are you selling him so cheap?"

The owner replies, "He's such a liar. He didn't do any of that stuff."

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## What's in a name... somatic cell

Craig Tanner

The presence of cells in bovine milk, so-called 'somatic cells', has been recognised and studied for many years. More than 95 per cent of somatic cells are white blood cells (WBCs), being a critical part of the cow's frontline defence against infection in the udder. The remainder are generally damaged and shed epithelial cells from the milk-producing tissue.

The somatic cell count (SCC) - that is, the number of somatic cells per millilitre of milk - is therefore a useful proxy for the concentration of WBCs in milk. A SCC of 60,000-150,000 cells/ml is often considered to be 'normal', reflecting a healthy mammary gland, whereas one of >150,000 cells/ml is suggestive of bacterial infection.

A herd test SCC for an individual cow (ICSCC) represents the composite result from four quarters; the bulk tank somatic cell count (BTSCC) is the cumulative result from all quarters of all cows contributing to the vat on the day. The BTSCC indirectly estimates the level of subclinical mastitis in the herd. A rough guide is that each 100,000 cells/ml indicates about 10% of cows are infected.

In low BTSCC herds, sudden spikes (> 20%) usually signal new infections, some of which will

be undetected clinicals. Such events are more difficult to interpret in high BTSCC herds (> 250,000/ml) as there is greater background 'noise' of existing and new infections.

Cow-side, the Rapid Mastitis Test is a great screening tool to apply before cows enter the vat. Use cautiously in the first 48 hours after calving, as very high numbers of somatic cells in colostrum will cause mild to strong positive reactions. However, infected quarters will still generally show stronger reactions compared to uninfected quarters, especially in heifers.

Events that will increase milk SCC include mastitis - clinical & subclinical; colostrum; cows 'sick' for any reason; declining milk volume as lactation advances; stray voltage; stress; and involution (drying off process at the end of lactation).

### WHY ARE WE INTERESTED IN SOMATIC CELLS?

- Window on udder health at quarter, cow, herd and national herd levels
- Reduced production
  - 8kgMS per lactation for every increase of 250,000 cells/ml in the range 100,000-600,000
  - Heifers infected in their 1st lactation produce about 8% less milk, an effect carried forward to 2nd and subsequent lactations even if cured
- Processing and manufacturing issues around product mix, yield, shelf-life, and flavour
- Penalty risk

Understand what SCCs tell you (and don't tell you). Have solid systems in place for managing SCC status of the herd. Know what to do when things go astray.



## Dairy

Wet weather has been a concern recently particularly as it has coincided with the start of calving. Cows/heifers experiencing calving difficulties are more likely to be missed during bad weather. So keep a lookout for animals that are not quite looking right. They may have a dead calf inside.

Magnesium is an issue both in terms of lowered intakes and providing a satisfactory

means of supplementation. Intakes are lowered because cows spend less time grazing and magnesium is less available in saturated pastures. Low magnesium means more cases of milk fever at calving and lowered production. Supplementation via the water is far less effective, pasture-dusting impractical, leaving the use of a feed supplement to deliver magnesium as the best option.

Keep an eye on young stock as parasites are still an issue at present so an extra

drench maybe required this year.

Also young stock are more susceptible to the effects of the weather because their smaller body size loses heat more rapidly. Supplementary feed will improve their situation no end. A fermentable long fibre source such as hay will provide additional heat during digestion but remember to allow for a greater daily intake of dry matter as well.

# Winter cattle drenching

Barney Askin

This time last year, the weather had really packed in, feed was scarce and the wheels really started to fall off some of the cattle systems around the district. There were many compounding issues; however, the final nail in the coffin for many cattle was parasites. If the drench programme was anything other than perfect, there was no slack in the system and much stock became compromised or worse.

Once cattle are approximately 10 months of age, the dominant worm species becomes *Ostertagia*. Many *Ostertagia* larvae ingested in the autumn and winter become dormant, recommencing their development in spring and causing 'type 2 ostertagiasis' when they emerge. Animals under pressure are most at risk but this phenomenon may occur in well-conditioned animals too, following a flush of feed. Cattle usually become immune to *Ostertagia* from about 15 months of age. This is not the case with the inhibited form of the worm though, and disease can be seen in older cattle.

By the time cattle are approaching 12 months of age, they should have developed resistance to *Cooperia*. This worm is usually a problem in the summer and autumn in R1 cattle.

*Trichostrongylus* can be present right through until the spring but their main significance is as a component of a mixed infection.

R2 cattle or older should receive a drench coming out of the winter to remove the inhibited *Ostertagia* burden. An injectable 'mectin' drench is easier than an oral one and should be more effective than a pour-on.

R1 cattle are in that middle ground where *Ostertagia* will be an issue and *Cooperia* may still be on the scene. An appropriate drench to use would contain levamisole and a 'mectin'. These are available in oral, pour-on and a now injectable. "Eclipse E" is an injectable formulations combination that was launched by Merial Ancare last month.

**If you have any questions about drenching your cattle this winter please come and talk to us. It is important to get it right.**

# Feeding for velvet

Hamish Pike

Peak nutritional requirements are immediately after the roar and during antler growth.

It is known that 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.

A red stag that weighed 240kg in February is likely to come out of the rut weighing around

180kg. In order for a red stag to gain weight and to maximise velvet growth, he will need to eat above maintenance (greater than 1.8% of his body weight in kgDM) over the winter months, and into the spring. That's about 3.5 to 4kg DM/day of high-quality feed. That's about a 20kg bag full of fresh pasture. This requirement increases over the summer (greater than 2% of his body weight) as the quality of feed decreases. Wapiti stags will require much higher levels of feeding (about 30-40% more feed) over the winter and spring.

In the spring, stags should ideally be split up into velveting mobs according to when they cast their buttons. This will help to reduce the risk of injury to the velvet at the time of antler harvesting.





# The future of inductions

Leisa Norris-Spring

Inductions for this season are essentially all done and dusted but we thought it was prudent to increase awareness around what the future holds for inductions in the coming year **prior to mating** this season. The guidelines need to be taken into consideration when making management decisions around this year's mating period to hopefully avoid any issues come calving 2012!

So, a brief history... since 2005 **routine** calving inductions for management purposes have been carried out according to a Code of Practice under the ACVM Act which expired on 31<sup>st</sup> May 2010. Following a review by key industry stakeholders, it was agreed that the goal for the future was to decrease routine inductions

to 4%. Farms relying heavily on inductions to manipulate seasonal calving patterns have had to make significant changes to their management systems. Such changes take time and, to decrease the negative financial impact of sudden change, a series of annually-reducing targets was set so that within an individual herd, the level of inductions should not exceed a set percentage of the herd's total size.

Those targets were/are:

- 01/06/10 to 31/05/11 = 15%
- 01/06/11 to 31/05/12 = 8%
- From 01/06/12 = 4%

As well as these targets, operational guidelines were set to guide and assist vets and farmers to protect animal welfare when inducing cows and to prevent drug residue violations.

**NOTE: These targets and guidelines do NOT affect the existing therapeutic indications for induction i.e. non-routine cases such as hydrops cows or mismated yearlings etc, or other potential uses of corticosteroids such as an anti-inflammatory treatment or for ketosis, shock, allergies etc.**

As vets we are bound by law, including our Code of Professional Conduct to adhere

to these guidelines, and you as farmers also have legal obligations according to your dairy supply contracts. As an owner/manager/person in charge, you have certain responsibilities to fulfill that will allow you to continue to induce. Looking ahead to mating in 2011 and possible inductions in 2012, the key ones to be aware of now are:

- You are permitted to induce a maximum of 4% of the spring herd in 2012
- A natural calving date must be determined so pregnancy-testing must be at a stage where date of conception can be confirmed or estimated accurately (6-12 weeks of gestation)
- If purchasing in-calf cows, ensure they come with relevant documentation such as a vet certificate stating their stage of pregnancy
- ALL cows need to be ear-tagged or have other means of accurate identification
- You will need to provide evidence of the total number of cows in the herd at the 2012 planned start of calving

For a more complete copy of the induction guidelines or to discuss this issue further, please don't hesitate to contact us.

# What's the goss?

If you're temporarily blinded when you come into the Feilding clinic, it's because **Greta** is sporting a beautiful diamond engagement

ring. Congratulations to Greta and soon-to-be husband **Jeff** who plan to get married in April next year (well, *Greta* would like April, but *Jeff* the dairy farmer would prefer June or July!).

A very warm welcome to our new dairy vet **Allie Quinn**, who is featured on the front page with her cow cake. Allie replaces **Pete**, now married and based in the UK! We are also

delighted to have **Jo Heslop** on board. Jo is a very familiar face to Totally Vets in her role as facilitator and trainer, and now joins us as our Project Coordinator, working in with our special interest groups to drive the delivery of services across the business. Jo will also have her hands full helping Trevor to organise his workload.

# When is the best time to paddock out for lambing?

Ginny Dodunski

In our June newsletter, Trevor did a great review of ewe management from scanning to lambing, including winter feed allocation and target covers for lambing.

There is plenty of data now to show that there is not much advantage to lambing twinning ewes on pasture covers of much over 1200kgDM/Ha (that's a winter pasture where the average leaf length is about 3.5cm). Last lambing, very few flocks were able to achieve this anyway, but this year there's a much better likelihood of many farms hitting this target given the good pasture growth we had right through into June.

But it's amazing how fast feed can disappear in the weeks leading up to lambing, especially as we need to increase feeding levels to meet increasing ewe demand in those last few weeks. We need to keep the focus on maintaining the

energy level of the ewe right up to lambing, rather than restricting intakes to achieve a 'magic' pasture cover at lambing time.

In years gone by, it was recommended that ewes be put into their lambing paddocks up to two weeks before lambing, to allow them to get used to the paddock and 'choose' birth sites.

Whilst lambs born on an 'ideal' birth site have a better chance of getting up, getting a feed and following mum than those born on the side of a 35° slope with no shelter, the bulk of evidence on lamb survival points to the energy status of the ewe as top of the list of critical factors in the lamb survival equation.

A ewe that has not been losing weight in the immediate weeks before lambing and is not scrounging for food in the immediate days either side of lambing, has the best chance of producing lambs that stand up quickly to suckle, and she will have more energy and motivation to mother her lambs as opposed to looking for a bite to eat.

By paddocking out early (especially if you are lambing somewhat early relative to grass growth), what tends to happen is that ewes eat their heads off in the first week and then begin to lose weight in the week (or more) before they actually lamb - which sees the ewes losing body condition at a time when it is most damaging to do so.

Even when feed is short, it is preferable to keep ewes on a rotation that allows them fresh feed every day or few days, than to have them in the one place on a declining plane. When feed is short at lambing, you are going to take a hit somewhere, whether in lamb survival, ewe milk production and body condition or all three, but if short-term management can focus on getting the maximum number of live lambs on the ground by maintaining energy supply to the ewe, at least you have something to work with!

And keeping ewes on a rotation (even when it seems they're not going onto covers much higher than they came out of) is one tool that can help keep ewes somewhere close to a positive energy balance before lambing.

If this situation sounds like you, put a note in your diary to talk to one of us about planning for next year to get to lambing with pasture covers that make you smile!

On a final note, newborn lamb losses from subclinical iodine deficiency could be more of an issue this year given that generally reasonable pasture covers through winter have seen many ewe flocks ingesting less soil than in some winters! If you didn't give your ewes a dose of oral iodine at scanning, a dose pre-lamb could be well worth the effort.



We have a new baby in the TVL team! **Julie Christensen** gave birth to 7lb3oz **Noah** on 12<sup>th</sup> July. Dad **Nick** says that with Julie in the back seat of the car ready to push, it was a very fast trip to the hospital! Mum, Dad and Noah are all doing well.

Nine of our small, large animal and equine vets brushed up on their continuing education

and attended the New Zealand Veterinary Association annual conference in Hamilton in late June. **Christine, Sally, Jo, Hamish, Greg, Barry, Margaret, Lucy** and **Katie** all attended lectures and workshops on their specific area of interest. **Trevor** is also catching up with other vets in his field by attending the World Association for the Advancement of Veterinary Parasitology conference in

Buenos Aires at the end of August.

**Anita** is currently holidaying on the way home from Vietnam, while **Joao** has just arrived there. He has already made friends with the very happy guard who works at the farms' entrance gate and tells us this guard is very impressed with Joao's body weight - Joao reckons he weighs twice as much as him!!

# Beef cow nutrition

Hamish Pike

Once the cows have calved there are 3 key objectives:

1. Achieve at least 1.0kg/day LW gain in the calves.
2. Feed the cow to achieve a body condition score (BCS) of 3.0 (out of 5) at mating in order to optimise mating performance (Friesian-cross beef cows BCS 2.75).
3. Prevent metabolic issues.

In Friesian-cross cows, it may be necessary to limit feed intake for the first 3-4 weeks in those cows rearing a single calf so that udder problems do not result from over-production and under-suckling.

A sward height of 6cm is sufficient for Hereford x Friesian heifers during the first month of lactation, increasing to 12cm sward height during the 2nd month of lactation. With this level of feeding, calves should gain at least 1kg/day while suckling their dams.

By the time a calf gets to 3 months of age, grass makes up 50% of the dietary intake.

In order to achieve growth rates in excess of 1kg LW/day, the calf's pasture intake needs to be 4kgDM/day in the late spring when feed quality is highest.

Cows will to some degree buffer their calves when under-fed in early lactation by losing liveweight to maintain milk production. However, remember that the total amount of milk that a cow will produce is driven by how high her milk production is at the peak of lactation. Therefore if the cows are not allocated enough feed in early spring, they will not achieve their maximum peak lactational height. Peak lactation also happens to coincide

with mating time. Maximising their milk production at this time will also maximise their conception rates which is vital for maximising your profit in a beef cow herd.

Therefore in late spring, cows need to be eating in excess of 12kgDM/day. The better a cow is fed, the less time it will take for her to reach first oestrus after calving. Conception rates will always be higher in individual cows that have had at least one oestrus prior to mating. Those cows consuming up to 20kgDM/day pre-mating, should be near a BCS of 3.0 by mating (target).

On the whole, metabolic issues like milk fever and grass staggers can be prevented through good nutrition. By giving cows an ad lib pasture allowance of 2500kgDM/ha (6-7cm sward height), maximum intake can be achieved. However, Friesian x Hereford cows for example, may need some form of magnesium either in the feed or water. This is best started 3 weeks before calving and continued for at least a month into lactation where practical.



## Hello from Vietnam!

Anita Renes

My stint here is almost over - time has flown by! It is currently the middle of the Vietnamese summer and daily temperatures are regularly in the late 30s (if not over) - sometimes I actually miss winter in Apiti! Heat stress is a big issue and milk production, fertility and animal health suffer at this time of the year. Fans are installed in the barns and a sprinkler system cools the cows at the milking parlour before milking. Fortunately the earlier issues of water volume and quality have been resolved with the installation of the Amiad water filtration system. The farm water

is taken from the surrounding lake and quality levels vary.

Growing and sourcing local feed is a top priority as currently most is shipped to Vietnam from the USA at a high cost. Last month was a busy time at the feed centre when nearly 10,000 tonnes of rice straw silage was made over two weeks. This time of the year the rice harvest occurs - it is cut by hand by the local people and placed on the side of the road. A machine travels around separating the rice from the straw. TH Farms spent 24 hours a day for two weeks collecting nearly 10,000 tonnes of rice straw and making it into silage. Other local by-products that have been used include oranges, lemons and lychees.

Foot and mouth disease (FMD) has been found in surrounding districts over the past

few months. FMD will always be a risk as the disease is endemic in Vietnam. The farm relies on a strict vaccination policy (every 4 months) and biosecurity to keep the disease out.

The milking parlour on Farm 2 is nearly completed in preparation for the busy calving period - there are about 5000 cows and heifers calving between July and September. Also in August, new shipments of heifers from New Zealand are due to start arriving with about 20,000 expected to make the trip over the next 12 months. The scale of the project is mind-blowing!

Joao has arrived to begin his time here and I'm looking forward to a month travelling in Vietnam and Thailand before returning to NZ in August.

I will see you all soon!



# Metrichecking

Greg Smith

Studies have shown that checking just the 'at risk' cows will detect only around 30% of the cows that develop endometritis after calving. Previously, detection of endometritis was by observation of discharges from the vulva or a combination of manual palpation of the uterus, speculum examination of the cervix or a gloved hand examination of the vagina.

While of value, these methods were limited either by low sensitivity (i.e. a high number of cases missed) when used in isolation, or were too time-consuming to apply to large numbers of animals.

Since the development of the Metricheck device in 2007, not only can the whole herd now be checked efficiently but the detection rate of endometritis within seasonal calving herds has improved.

The Metricheck has been calibrated against various other methods and has consistently proved its worth. A 2009 study compared the results of the

Metricheck against the collection of cells from the endometrium (cytology) and bacterial culture and found good correlation in both cases.

## DOES THE TIMING MATTER?

Less than 14 days after calving, some discharge is normal. A dark red discharge with no associated odour is normal from days 5-7. A clear mucous-like discharge with flecks of pus is normal between 7-14 days. If either of these discharges has a strong unpleasant odour it is abnormal. If the flecks of pus persist beyond 14 days, even without an associated odour, the discharge is abnormal.

Below 14 days, normal discharges are part of the cleaning up process post-calving and treatment is unnecessary. Abnormal discharges below 14 days require treatment usually with an injectable product such as penicillin.

The Metricheck is therefore intended to detect endometritis 14 days or more after calving to avoid over-diagnosing problems and hence treating cows unnecessarily. An intra-uterine infusion is the preferred treatment 14 days or more after calving.

## WHOLE HERD OR BATCHES?

The current recommendation is to metricheck the whole herd 21 days prior to the start of mating. This allows most of the herd to be calved at least 14 days before examination

and allows sufficient time before mating for treatment to take effect. However work in Australia has found that treatment of endometritis between 14-28 after calving is more effective than treatment given after 28 days. If a herd is checked just once then cows with endometritis that calved during the first 5 weeks after the planned start of calving will exceed the 28-day recommendation. In a seasonal calving herd, this means metrichecking and treating on more than one occasion which is a less attractive option than a whole herd metricheck on one day.

However the improvement can be incorporated without as much disruption as might be expected. By metrichecking on three occasions at 5, 9 and 11 weeks after the planned start of calving, only the Metricheck at 5 weeks is an addition to the current repro program being used on many farms. The 9-week Metricheck is the same date as the current whole herd Metricheck date and the 11-week Metricheck can be made to coincide with the examination of NVOs 7 days prior to the planned start of mating.

**Examining cows in batches will not suit every situation and the proposed outline above is not necessarily the best option on every farm. However if you consider that metrichecking cows in batches could work in your situation, discuss this with your vet to determine the best approach.**

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