



VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

AUGUST 2010



Above Chris Will - regional winner of the YFC contest

Competing is addictive

Chris Will represented the local zone of the Young Farmers Clubs at the recent Young Farmer of the Year Contest in Gore. Chris and his partner, Anna Hunter, sharemilk 200 cows on a platform of 60 hectares at Glen Oroua. They also finish beef and crop farm.

Chris says the contest has become addictive. Having been there, Chris is keen to do it better. Competing allows him to better understand a multitude of aspects associated with farming. He says "information and help comes from all sources".

Belonging to the YFC means Chris and Anna get to be away from the farm and be part of the community. The two to three monthly activities run by the Marton YFC provide the opportunity to chat about what's happening.

It pays to be kind

Paul Wiseman

There are many good reasons to handle stock well, and now there is one more, says Dr Lindsay Matthews from AgResearch.

Ground-breaking research in Australasia led by Paul Hemsworth at the Melbourne Animal Welfare Science Centre has demonstrated that by "sparing the rod", dairy cattle will respond with more milk in the vat.

Earlier studies had shown that the greater the number of aversive interactions between handlers and their cows, the more fearful the animals were of the handlers and the lower the total milk yield, affecting both fat and protein.

Subsequent studies utilising 131 commercial dairy farms confirmed the crucial role of handler behaviour in driving the effect on productivity. These studies compared the behaviour and productivity of cows in herds where handlers were specifically trained to handle cows less aversively with herds where there was no specific intervention. In the intervention herds, there was:

- A lower incidence of aversive human interactions with stock
- Fewer fear reactions by cows to humans, and

- Improved milk yield (about 5% during the peak months)

The effect of handling on yield appears to be mediated by stress resulting from poor handling, as cows handled aversively have higher plasma cortisol concentrations.

What types of interactions lead to stress, fear and lower production? Typically, they include human behaviours designed to force cow movement including hitting, slapping, pushing and tail twists. Other research indicates that cows perceive shouting to be as aversive as hitting, and probably contributes to stress as well. Signs that stock are unduly fearful include a reluctance to approach a human in close contact situations, and active avoidance while the handler is still at some distance ("flight distance") in the paddock.

An encouraging aspect of this work is that the productivity gains from better handling can be attained after a relatively small amount of training of handlers over a couple of visits to the farms. The key outcome of the training is to achieve a reduction in aversive behaviours and an increase in positive interactions such as pats, strokes or resting the hand gently on the animal.





Totally Vets current stock health

You'll all be far too busy to read current stock health this month so I'll make it quick.

Dairy

Calving is well underway and everyone is focused on recognising cows in trouble. Remember the 10 minute rule: 1) no progress in 10 minutes? 2) very slow progress in 10 minutes? 3) not ready to pull in 10 minutes? If you answer yes to any of these, call Totally Vets.

Downer cows around calving should be treated aggressively. The longer they're down the less likely they are to get up.

Maintain vigilance in the colostrum mob. This is the second major opportunity you have of achieving excellent milk quality. Strip colostrum cows at every milking and rapid mastitis test (RMT) before they go into the vat. Hold cows in the colostrum mob if you have any doubts.



HA HA

Can you answer the following questions?

Why is it that people say they "slept like a baby" when babies wake up every two hours?

Why do we press harder on a remote control when we know the batteries are flat?

Why do banks charge a fee on "insufficient funds" when they know there is not enough?

Why does someone believe you when you say there are four billion stars, but check when you say the paint is wet?

What is the speed of darkness?

If it's true that we are here to help others, what are the others doing here?

Do you cry under water?

How is it that we put man on the moon before we figured out it would be a good idea to put wheels on luggage?

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Good morning from Vietnam

Greg Smith

We had our first mortality! A heifer escaped from the shed and despite efforts to stop her, she jumped a drain and pushed through a hedge to make it to the surrounding farmland. Apparently she then tried to join various groups of water buffalo who all took one look at the black and white alien and ran the other way - and water buffalo never run! The exertion and heat finally got to her. It's true; misadventure is the leading cause of death in heifers.

A few weeks back I had a holiday in Hà Nội. When I returned, the room was strangely quiet, so fearing for the welfare of the 'worm', I checked the wardrobe to find particle board now lining various surfaces and there was not a sound to be heard then - or since. Strangely as I write, I can hear a goat somewhere in

the hotel - perhaps it's tomorrow's dinner. I kid you not, some of the restaurants have the menu tied to the fence and a portrait on the signage at the front. That would go down a treat in Ponsonby - "meet Wilbur - he's to be your dinner this evening".

When I arrived in late February, rice planting was in full swing. The cycle is complete and harvesting is the main activity now. The locals use threshing machines that look like large BBQs and conduct their business wherever. Rice stalks dry on the road or in variously located stacks. The water buffalo are enjoying a little more freedom as a result and are getting the best of the aftermath instead of being restricted to road sidings and hedgerows.

Craig Tanner turns up tomorrow, and I'm looking forward to that. There are now 12 permanent Israelis with others coming and going. So an English-as-a-first-language speaker will be a novelty. If I come back saying "why, why, why" when surprised or disgusted by something, just kick me.

Tam Biet, Greg.





Keep first milk colostrum separate for the youngest calves. Maintain excellent hygiene around the calf sheds.

Identify and record any "At Risk" cows - assisted calvings, retained membranes (>12 hours), twins, downers, vaginal discharge - for batch treatment.

Sheep and Beef

Be prepared to treat sleepy ewes and milk fever in your ewes. See Greta's article on page 7.

Magnesium supplementation for calving cows needs to start two to three weeks before the planned start of calving.

Magnesium not only helps prevent grass staggers, it also helps in the prevention of milk fever and drives appetite.

Have you experienced rotavirus scours in calves on cows? If you have and don't want to deal with all the hassle and frustration it creates, consider vaccinating cows 3 weeks before calving with Rotavec® Corona vaccine.



The neglected nutrition component

Anita Renes

Minerals are frequently implicated as a cause of poor reproductive performance and poor production in dairy cows. Is this fair? A multitude of anecdotal 'claims' for minerals are perpetuated by 'snake-oil' sales people that lead to abuse of and unrealistic expectations from the use of minerals.

Commonly deficient essential minerals are readily checked with blood tests in early lactation and just before mating. Beta-hydroxybuterate (BOHB) can also be included with early lactation tests. BOHB is not a mineral, it is a ketone produced in excess amounts when animals are in negative energy balance, and provides an indication of nutritional status.

Trials involving selenium supplementation have improved 3-week submission rates from 78%

to 94% and improved the non-return-rate to first mating from 60% to 78%. Copper deficiency has been implicated in infertility and more recently molybdenum toxicity has been shown to affect fertility through the formation and absorption of thiomolybdate complexes. There is no suitable blood test for molybdenum, though levels in pasture can be measured.

Subclinical hypocalcaemia is common in dairy cattle around calving. Prolonged hypocalcaemia causes decreased gut contraction and intermittent appetite depression leading to lower energy intakes and lower milk production. Subclinical milk fever is also a risk factor increasing the incidence of endometritis or 'dirty cows'.

Subclinical magnesium deficiency is associated with an increased risk of milk fever, reduced appetite, reduced milk-fat production and chronic udder oedema.

All the above tells us that an animal with a mineral deficiency or imbalance is likely to be failing to thrive, have a poor appetite and be losing excessive weight - all of which will indirectly and adversely impact on fertility and milk production.

Early lactation blood tests do help:

- Confirm that your current mineral supplementation plan is doing its job

- Determine the mineral status in your herd and the need for supplementation
- Determine if mineral deficiencies are playing a role in problems such as retained foetal membranes, non-cycling cows, excessive weight loss and low milk production
- Allow development of a supplementation plan to meet your requirements

Underfeeding and excessive condition loss between calving and mating-start is one of the primary causes of non-cycling cows, low submission rates and poor six-week in-calf rate. Poor production is also a consequence of mineral deficiency.

Many mineral deficiencies are attributable to a simple lack of feed intake. That is, the feeds offered may contain adequate minerals. The cows just don't eat enough of it!

Blood tests around calving and again pre-mating, together with an overall assessment of cow health, condition, feeding and production, will identify nutritional deficiencies or imbalances before it's too late to do anything about them.

Plan with Totally Vets to monitor your herds' mineral status around calving and before mating before it's too late to reap the real benefits. Pregnancy testing is too late!



Magnesium in beef cows

Craig Dickson

Magnesium is required for optimal rumen fermentation. Ruminants deficient in magnesium have lowered cellulose digestion - a major source of energy for ruminants - resulting in reduced appetite and total nutrient intake.

Magnesium is also essential for key body enzyme systems regulating energy, protein and fat metabolism. In addition, magnesium is also involved in the uptake and metabolism of calcium, as well as nerve function.

Deficient magnesium intakes before calving are therefore associated with reduced

voluntary intakes. This in turn results in the inability of cows to gain and maintain weight despite above-maintenance feeding levels, and an increased incidence of both milk fever (low calcium) and grass staggers (low magnesium).

After calving, magnesium deficiency has been associated with excessive bodyweight loss and reduced milk production.

The impact of low magnesium will depend on a number of nutritional, environmental and management factors. Underfeeding, early calving on lush spring pasture, abrupt changes in diet, age (older cattle are more predisposed), animals harbouring a large parasite burden are all factors which will increase the chances of animals lapsing into a low-magnesium state.

As a general rule, magnesium supplementation should begin in the cows at least three weeks before calving and should continue for at least a month after calving.

Options for magnesium supplementation include:

1. Magnesium capsules - release magnesium in the rumen for up to 90 days.
2. Treatment of hay/silage - apply as slurry (1 part water to 1 part magnesium oxide) @ 50g/cow/day.
3. Pasture dusting - magnesium oxide @ 70g/cow/day. Apply in the morning when grass is wet with dew. Be aware of its side effects. It is a depressant in humans, so avoid inhaling the dust. Dust into the wind, and wear a mask.
4. Peta dispenser delivery in trough - magnesium chloride or magnesium sulphate @ 60g/cow/day.

If you have any questions, please do not hesitate to contact Totally Vets.

What's the goss?

Welcome back **Barny** from the "best summer in the UK" holiday. Barny had to leave Alison and the kids there as Charlotte suffered a split lip in an unplanned fall. Barny didn't think we would be very excited if he stayed on as well!

Joao has had a great time in Brazil - playing gauchos, hunting with his brothers and helping his mother with jobs around her house.

Greg's communications from Vietnam have slowed. He must be busy with all those cows! Greg and Craig Tanner have a week's crossover in August when Craig takes over from Greg. (See Greg's letter from Vietnam on page 2.)

Craig Tanner recently returned from Israel where he inspected dairy production systems as being applied in Vietnam. On the way home he caught up with Greg who was very pleased to speak to someone whose first language was English. A short cruise is the only respite Craig will have before venturing back to Vietnam for a five-month stint.

The scouring calf

Craig Dickson

The major causes of diarrhoea in calves are viral, protozoal, and less commonly bacterial pathogens. Non-infectious or nutritional scours are usually mild and short-lived or predispose to infection with one or more of the former pathogens.

Irrespective of the pathogen involved, aggressive oral rehydration therapy is the most important factor in the successful treatment of the scouring calf. The main objectives are to correct the dehydration, acidosis and energy loss. At least 95% of all scour cases will recover with electrolyte treatment alone.

This is not to say that it isn't worth identifying the cause of the scour. There are products that may be useful adjuncts to electrolyte therapy for certain cases and it is prudent to get some faecal samples analysed.

The table at the end of this article gives you some idea of the extent of the fluid loss in the scouring calf.

Well-formulated oral rehydration solutions (ORS) will contain electrolytes (the major electrolyte losses in the scouring calf are sodium, chloride, potassium and bicarbonate) and an energy source. Unfortunately, even the best formulated products do not contain enough energy to meet the calf's requirements.

Traditionally it has been recommended to remove milk from the diet of scouring calves. The problem with this approach is that the animal will be sliding backwards in its energy levels and this will compromise the calf's

recovery. In light of this, there have been some advocates of continuing milk feeding during electrolyte administration. The trade-off here is that some products, particularly those containing bicarbonate as an alkalinizing agent, may compromise curd formation and exacerbate the scour.

It starts to become apparent that therapy of the scouring calf is a balancing act between reversing the metabolic disturbances that occur (namely the acidosis) while endeavouring to meet the animal's energy requirements.

In light of this, the following is our recommendation for oral replacement therapy.

DAY 1:

Morning: Feed 2 litres of **ORS** (e.g. Revive)

Midday: Feed 2 litres of **ORS**

Afternoon: Feed 2 litres of **ORS**

Do not feed milk on day 1. If the calf is recumbent or becomes recumbent by the afternoon feed, seek veterinary treatment.

DAY 2:

Morning: Feed 2 litres of **ORS**

Midday: Feed 2 litres of **Colostrum** (ideally), **Whole Milk** or **Milk Replacer** (do not dilute!)

Afternoon: Feed 2 litres of **ORS**.

DAY 3:

Morning: Feed 2 litres of **Colostrum**, **Whole Milk** or **Milk Replacer**

Midday: Feed 2 litres of **ORS**

Afternoon: Feed 2 litres of **Colostrum**, **Whole Milk** or **Milk Replacer**.

DAY 4:

Back on normal milk feeding protocol.

NOTES:

1. Some calves may still produce loose faeces for a few days after treatment. This is an indication that the gut lining is still recovering. If the calf is otherwise healthy and bright, no further treatment is required.
2. All ORS should be made up as directed by the manufacturer.
3. All ORS should be made up fresh and preferably administered at body temperature (38°C).
4. Scouring calves must be isolated under all circumstances from healthy calves.
5. Practice good hygiene as some causes of calf scours are infectious to other calves and humans.
6. Very few cases of scours require antibiotics.

Fluid loss in the scouring calf

Degree of dehydration	Clinical signs	Fluid loss	Maintenance fluid	Total daily fluid requirement
5%	Depressed	2L	4L	6L
8%	Sunken eyes, dry mouth and nose	3.2L	4L	7.2L
10%	Down and cold	4L	4L	8L
12%+	Death	4.8L	4L	8.8L

Totally Vets employee of the month goes to our new crime fighter, **Kayla**. She recently helped the police nab some young Feilding offenders who stole a "pink" studded dog collar from our clinic. The collar was returned and the girls got to look at a man in uniform!!!

Congratulations to **Peg** (Margaret Leyland) whose photo of "Kaimanawas in the

Mist" won the Stubben Photo of the Year Competition on the Equine Trader website. Thanks to those of you who voted for her - she is now the proud owner of a lovely new Stubben bridle!

The Kaimanawa muster was a very quick affair this year for **Nigel and Peg**. The herd size is at a level that the land can sustain in good condition.

Paul Olsen was voted onto the national board of Young Farmers as a vice-chairman in July. That's a big plus for Paul personally and for the local clubs as well.

Marie, Paul, Shaun and Terry Olsen also won the Horizons 2010 Hill Laboratories Harvest Award in the Ballance Farm Environment Awards. All in all a productive period for the Olsens!



Cuts, calving, checking stags and TSE

Hamish Pike

The ideal time to harvest velvet is when there is a balance between weight, length and the degree of calcification. The more calcified a stick is, the more it is downgraded.

The ideal antler for harvesting which balances maximum weight for the highest quality antler is when the top length equals the antler's main beam circumference. Generally this takes about 60 days from button drop to grow to this stage. Some heads will not grow in a symmetrical fashion with one side ready for harvesting before the other. It is best to cut both antlers at the time the first one is ready because the better quality offsets the lower harvest weight.

When transporting spikers for slaughter, they must not have velvet or hard antler spikes exceeding 110mm measured from the centre of the skull. Deer must not be transported with bleeding antler stubs, or within seven days post-velvetting.

When sire stags are being develvetted it is a great opportunity to check teeth, feet and testicles for abnormalities. TB testing can also be scheduled at the same time.

If ticks are an ongoing problem around calving/fawning, hinds should be drenched regularly with Bayticol from August to minimise the numbers of adult ticks around at fawning. High and low-risk paddocks for ticks need to be identified early on and the pasture cover should be adequate for set-stocking hinds. Fawning paddocks benefit if there are some areas of basic cover for fawns to hide, but be aware these areas may harbour the most ticks.

A hind should be assisted with fawning only if one or both front legs are showing or hinds have been seen to strain for more than an hour. They should be brought in as quietly

as possible into the shed where it is dry and sheltered. Clean your hands thoroughly, use plenty of lubrication and be gentle. Head and leg backs need to have the fawn pushed back so you can rotate the head or leg. Breach births are common and if you are not making progress in ten minutes, call Totally Vets.

TRANSMISSIBLE SPONGIFORM ENCEPHALITIS (TSE) SURVEILLANCE SCHEME

Deer older than two years of age showing progressive, non-responsive neurological disease or ill-thrift, or signs of acute or peracute pneumonia, or aspiration pneumonia (at post-mortem) meet the criteria for inclusion in this scheme. It is not acceptable to submit heads from hinds that are being culled just because they are empty. While there are a large number of heads required for monitoring, integrity with respect to the submission of cases is important to maintain the international validity of the scheme. Farmers get \$100 incentive per head but are limited to two heads submitted per farm per year.

Fertility testing of dairy bulls

Hamish Pike

Reduce the risk of introducing sub-fertile bulls to your herd by using Totally Vets' fertility testing service for dairy and beef bulls.

Semen is collected via an artificial vagina while the bull mounts a teaser heifer or cow. This not only allows us to collect a reliable semen sample (compared to using an electro-ejaculator), but also to visualise the bull's penis in the erected state, his libido and ability to mount.

All you need to provide are yards with good footing and with strong rails to attach the teaser bale, a race, a quiet non-pregnant heifer/cow (similar size

to the bulls being tested), and two people to help.

The cost is \$40 per bull for the first 10 bulls. Larger numbers are discounted. Travel is extra.

There are things that you need to do prior to the day of collection, so if you wish to stop firing blanks call Guy Haynes (vet tech), Barny Askin or Hamish Pike on 06 323 6161.



Sleepy sheepies

Greta Baynes

The heavily-pregnant ewe needs to be fed consistently and fed well. Limiting or changing her food can cause metabolic disease resulting in death of the ewe as well as the loss of her lambs.

Sleepy sickness, or pregnancy toxæmia, occurs in multiple-bearing ewes in late pregnancy due to insufficient energy intake. The ewe breaks down her fat reserves to provide energy for her and her lambs. As the fat is processed, it forms toxins that have detrimental effects on the ewe.

In the early stages, an affected ewe will separate herself, eat less and appear depressed. She will become dazed, staggy, weak and partially blind. She will become unresponsive and often sit down and be unable to stand again. A test for this disease is the 'wool pull' with the wool being plucked easily from the skin.

Triggers are a falling plane of nutrition in the last months of pregnancy; a sudden feed restriction (e.g. yarding for crutching); stormy

weather; disease that prevents her eating (e.g. pinkeye, footrot, milk fever); excessive stocking rates with inadequate feed and carrying two or more foetuses.

Effective treatment must be initiated early. The best treatment is glucose into the vein. If you're uncomfortable doing this, it can be given orally several times a day as Ewe Life or Ketol. Encourage rehydration - if she is severely dehydrated (if you pull a tent of skin up and it remains tented for more than a second or two, she is dehydrated), drench her with 1-2 litres of warm water. **When giving oral treatment, it is essential that she still has her swallow reflex or the fluid will settle on the lungs and cause pneumonia.**

It is worth treating with calcium as there is a chance she will also have milk fever. Give 100mL of Calpro 250 under the skin and massage well.

To prevent sleepy sickness, feed multiple-bearing ewes well in the last five weeks of pregnancy and prevent situations where there may be a sudden feed restriction. If crutching, keep off grass for minimal time. If there is a storm on the way, move the ewes to a paddock with shelter. If there are low covers around and no spare grass, consider supplementing their intake.

Milk fever is low blood calcium levels. This occurs when there is a sudden feed restriction

or a change of feed and can occur during late pregnancy or early lactation. With milk fever, the ewe may have low calcium with no obvious signs (subclinical disease) which can have follow-on effects reducing lamb survival (e.g. 22% of lamb losses compared to 3% in ewes with normal calcium levels).

There are two reasons for low blood calcium levels - low calcium intakes and high requirements by a heavily-pregnant ewe that is beginning to make milk.

Ewes stagger about then sit down and are unable to stand. They usually sit with their head tucked into their flank. Their blinking reflex is often delayed or absent and they may fall into a coma. They respond well to treatment.

Ewes are often low in glucose as well as calcium so treatment is similar to that for sleepy sickness. It is recommended to give calcium under the skin as high concentrations given into the vein can cause death. Response is usually dramatic with ewes standing within 15-30 minutes, urinating, showing muscle tremors; then they walk away and feed. It is recommended to give oral glucose as they are likely to have sleepy sickness from not eating.

Both milk fever and sleepy sickness are preventable by avoiding stressors in late pregnancy and early lactation.

It is prudent to remember the importance of testing bulls for Bovine Virus Diarrhoea (BVD). The introduction of a persistently infected (PI) bull with BVD virus to a herd of cows risks infertility, embryonic loss and perpetuation of infection within the herd. Testing of all bulls well before sales ensures that only non-PI bulls are sold, and also acts as a surveillance test on the farm. Other samples can be collected for testing at the same time if required, e.g. Enzootic Bovine Leucosis and tritrichomonas.



Congratulations

Congratulations to Guy and Sue Pinckney, Robert Ervine and Bryan Dickerson. They won the draw to have their Rotavec® Corona vaccine administered at no cost by

our technician Guy Haynes. The draw was made on orders confirmed for vaccine before July 30th.

Graham and Heather Sexton won the "fabulous holiday on us" draw for a \$2500 travel voucher with their

purchases of qualifying Merial-Ancare product during April and May. We are sure Graham and Heather will put this to good use.

Totally Vets thanks all who participated in these two competitions.

We want your photos - please

Totally Vets is totally chuffed about our move across the road in Feilding to new premises. Our commitment to this move reflects our confidence and belief in the community and industries we have been part of for nigh on sixty years.

These services have grown with the community and Totally Vets are no longer primarily providers of emergency animal medicine and

surgery. Our focus on preventative animal health, improving animal welfare through physical and medical care, and doing this in a way that is profitable and sustainable for all of us intensifies each year.

While we continue to be there for the unfortunate "hit by car" cats and dogs, the horse with colic, the emergency calving and sudden deaths in sheep, there is even greater focus on wellness for your pets, maximising the performance of your horse, our role in ensuring safe food from well looked-after animals and extending the useful life of anthelmintics.

Totally Vets would like to record some of these changes in "veterinary services" and the people who have received and delivered them

over the years. If you have any photos of pets and vets, vets on farm or the way things use to be done, we would appreciate the opportunity to share them with all of our clients as a part of our move across the road.

Please submit any photos, even if you think they're only vaguely relevant, to either the Feilding or Palmerston North branch. They will be returned in the same condition plus any enhancements made.

Modern technology allows those who know how to use it to do all sorts of things with photographs!

Those who submit photographs will enter draws to win tickets for a Centrepoint Theatre show.

Virukill - a new disinfectant

Safe virucidal disinfectant ideal for calf sheds and equipment

1L \$65.00 (inc GST)

5L \$295.00 (inc GST)

Despite the use of the best available vaccines and antibiotics, microbial diseases remain a constant problem in calf-rearing facilities.

A major contributing factor is the unacceptably high levels of viruses, bacteria and fungi carried over from one batch to the next. Once the population of these micro-organisms increases beyond acceptable levels, they are capable of breaking through the calf's immunity. In many cases they only show as poor weight-gain.

The value of hygiene is often underestimated. To reduce disease challenge in the environment all micro-organism levels must be minimised. Pathogens are found on all surfaces and can be difficult to kill if not treated with the correct disinfectant.

Virukill's effectiveness in disinfecting surfaces such as floors, walls, roofs and equipment is unsurpassed. As a wash Virukill decreases bacteria by 90% at 10 cents per litre. As a disinfectant it decreases bacteria by 98% at 52 cents per litre.



Starter Plus

High energy, high calcium and magnesium supplement for sheep and cattle

20L \$157.00 (inc GST)

200L \$1089.00 (inc GST)

Also available in 1L, 4L, 50L and 100L