



# VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM

JULY 2012



Above: Chris Carter

## Chris Carter to join TVL

In October, Chris Carter will join Totally Vets as our Chief Executive following Nigel's decision to retire as our Executive Director in December.

Chris is a veterinarian with a post-graduate qualification in epidemiology. He is currently a member of the Executive of the SOE,ASUREQuality Ltd, where for the last 6 years he has had held the position of Chief Technical Officer and more latterly, International Business Director.

Earlier in his career Chris was a mixed animal vet both in Taranaki and overseas before returning to NZ and an intensive period of work within the cattle & deer Tb program. His earlier work with MAF at Flock House helped to quantify the current Tb skin tests in deer which went onto to be utilised within the voluntary and compulsory Tb program.

Chris is married to Lesley (who is the Deputy Head of Nga Tawa School). They have an adult son and daughter.

## Surviving a low payout

Fraser Abernethy

One of the key drivers of farm profitability is the operating cost per kilogram of milk solids (kgMS). If you are able to increase production and either maintain or reduce operating costs per kgMS, then farm profitability remains robust despite fluctuations in pay out.

If the production increase is implemented as part of a planned process, increased production is almost always accompanied by reduced animal health costs and improved herd reproductive performance.

Here is an actual example of the benefits of lowering production costs per kilogram of MS (based on Farmax™ modelling):

	Before...	After...
<b>Milking Platform</b>	173 hectares	173 hectares
<b>Cow numbers</b>	511	485
<b>Production</b>	180,000kgMS (3 yr average)	216,000kgMS (2 yr average)
<b>Operating expenses</b>	\$5.07/kgMS	\$4.68/kgMS
<b>Total operating expenses</b>	\$900,000	\$1,000,000
<b>Profitability (\$5.50 payout)</b>	\$77,000	\$177,000

The return on increased farm operating expenses of \$100,000 is \$200,000; an extra \$100,000 on the bottom line.

The model shows that if this farmer had chosen to reduce operating expenses by halving supplementary feed costs and keeping cow numbers the same, total MS would reduce to 180,000kgMS from 216,000kgMS. Operating expenses would have increased to \$5.00/kgMS and profitability halved without factoring the costs of an increased empty rate and reduced six-week-in-calf rate for next season!

Tactics for profitable production in early lactation:

1. Make timely decisions around cow health and management, including transitioning cows from dry to milking with special emphasis on colostrum cows.
2. Identify metabolic problems early and make suitable interventions to correct nutritional deficiencies.
3. Fully feed cows.
4. Recognise body-condition deficits early enough to do something about it.
5. Maximise home-grown feed through timely grazing and pasture management decisions.
6. Spend money on supplementary feed that meets the cows' nutritional requirements.
7. Remove low producers and reduce cow numbers to lower set costs.

Do you get excited about reducing costs and making more money? Talk to someone who talks to cows - that's us!



# Totally Vets current stock health

## Dairy

The transition period is already underway for many. The key to a good transition is achieving the required feed and magnesium intakes. Even short-term variations in these will increase the risk of metabolic-related calving disease. So keep a close eye on mob

sizes and the daily requirement for each mob. For grass-based systems, the type of magnesium is less important than the amount.

Factors that increase the availability of magnesium are energy (maize silage and total DM intake), saliva production (hay) and low



HA HA

## A dying wish

Patrick and Sean, two Irishmen, grew up together and were lifelong friends. But Patrick got sick and was dying. While on his deathbed, Patrick called to his buddy: "Sean, come 'ere. I 'ave a request for ye."

Sean walked to his friend's bedside and kneeled beside him.

"Seany, ole boy, we've been friends all our lives, and now I'm leaving 'ere. I 'ave one last request fir ye to do."

Sean burst into tears: "Anything, Patrick. Anything ye wish."

"Well, under me bed is a box containing a bottle of the finest whiskey in all of Ireland. Bottled the year I was born it was. After I die and they plant me in the ground, I want you to pour that fine whiskey over me grave so it might soak into me bones, and I'll be able to enjoy it for all eternity."

Sean was overcome with emotion, and in the true Irish spirit of his friend's request, he asked: "Aye, 'tis a fine thing you ask of me, and I will pour the whiskey. But, Patrick, might I strain it through me kidneys first?"

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## Lameness seminar review

Joao Dib & Craig Dickson

On March 22<sup>nd</sup> we had the great pleasure to host Neil Chesterton, a veterinarian consultant specialising in dairy cattle lameness. Neil is widely recognized for his expertise and consults not only in New Zealand but also overseas.

The seminar was divided into two sessions; a morning and early afternoon on-farm session attended by a number of clients and veterinarians; and an evening discussion open to all.

### During the on-farm session Neil discussed

- Basic techniques to treat lame cows, including correct restraint, knife sharpening and treatment
- Race design and maintenance - covering race slope, base material, corner placement and issues that affect cow-flow such as the position of races in relation to the yard

- Cowshed design as it influences cow-flow and handling

The session was valuable as it addressed the host farm's own conditions (and potential problems) and gave all present an opportunity to discuss approaches to solving issues, not only on the host farm but also on the attendees' own farms.

The evening session was held at the Feilding branch with about 30 people attending. All present found the discussion and presentation well worth the effort. The main thrust of this session was Neil's observations and experiences around improving cow-flow in order to minimise the incidence of lameness, interspersed with some interesting anecdotes from his recent trip to South America (yes - he was there to deal with lame cows). It's interesting how much the focus on lame cows has moved from taking the sore leg and grabbing a hoof knife to looking at the whole system and seeing where cow-flow is poor, because this is where the hoof damage will be happening.

We would like to thank Braeden and Caroline Whitelock as well as Brian Underwood for making their farms available for the on-farm session. Thanks also to all that attended. We hope you will put into practice the tips and suggestions discussed on the day.





potassium intake (avoid effluent paddocks). Remember the cheaper magnesium oxide now available (65% purity) contains only 39% magnesium versus 52% to 57% for the higher-quality products. Also, smaller particle size equals improved availability.

## Sheep & Beef

Ewe scanning has gone very well on most properties; this has been a real

demonstration of the power of having sheep in very good condition at mating.

With ewes in good order and those extra lambs on board, metabolic disorders such as sleepy sickness and milk fever become a real risk in triplet and twin-bearing ewes. The risk increases exponentially where feed supplies have run out in the weeks before lambing, which is going to be a common story this

year with poor feed quality taken into winter and reduced winter pasture growth.

It is not too late to do something about this - nitrogen application, various feed supplements and at least having some treatment on hand are all options. We are pretty good at assessing risk around this, so if you would like some help, give us a call. Worm issues grind on in young stock, don't relax on this.



## Best practice for bobby calves

Allie Quinn

Back in 2007, a consignment of bobby calves arrived at a processing plant in southern Taranaki. The weather was wet, windy and cold. The truck had no covers, the calves were saturated and shivering, some were hypothermic and several calves died.

This incident sparked concern which escalated to a national level and resulted in processor companies, transport companies, industry groups, and regulatory authorities forming the "Bobby Calf Transport Forum" and developing the "Bobby Calf Programme".

The bobby calf programme has resulted in many improvements in the last few years - and that is good news. According to Statistics New Zealand, 1.6 million calves were processed at slaughter premises last year - and most of these are intended for export markets.

Calf welfare is important to the dairy industry - how well we treat our low-value dairy industry 'by-products' may well be the yardstick by which our overseas markets judge us. Like it or not, bobby calves are food animals and that means they need to arrive fit and healthy for slaughter and processing.

Although transport is a key part of calf welfare, it was quickly recognised that good management of calves "prior to transport", is equally important.

DairyNZ has produced best practice guidelines called "the welfare of bobby calves". With the spring calving season almost here, now is a good time to ensure all your staff are familiar with the guidelines. You can get a copy of guidelines by going to the DairyNZ website.

Here's a brief summary to use as a checklist.

### HOW DO I KNOW IF MY CALVES ARE FIT FOR TRANSPORT?

- At least 4 days old
- Has no visible disease (e.g. scours), no deformities, no injuries, no blindness or other disabilities
- Has a dry, withered navel - not pink/red or fleshy
- Has bright eyes - not dull or shrunken. Ears are upright

- Able to bear weight on all legs
- Able to get up from a lying position without assistance and move freely
- Has firm hooves which show wear on the soles (indicates that the calf has been mobile and walking)

And most importantly...

- Has been fed at least half the daily ration of colostrum (or colostrum substitute) not more than two hours before pick up

### MAKING IT EASY FOR THE TRUCK DRIVER

Picking up bobby calves is a difficult job. Here's a couple of things you can do to make it easier on the truck driver and help ensure they your calves arrive fit for processing.

- Keep calves ready for pick up in a raised pen 70-100cm off the ground - it makes them a lot easier to load
- Give the truckie a hand to load your calves - not only does it make their job easier, you can also ensure that your calves are loaded properly
- Don't put out calves that are unfit for slaughter. Make sure they are either treated appropriately or humanely destroyed.

# Bearings in ewes

Hamish Pike

It is well known that ewes carrying multiple lambs are more likely to have bearings around lambing time compared to ewes with only a singleton.

The following factors are suspected in contributing to the incidence of bearings from scanning to set-stocking (taken from The Hilson Study, 2000-2001):

- A. There is good evidence that ewes that put on condition over tupping to scanning are more likely to have bearings than those that lose a small amount (1-2 kgBW) of condition over that period. Those that are break-feeding or shifting smaller mobs (<1000) daily will find this type of weight loss reasonably easy to achieve compared to larger mobs in bigger paddocks. This is because feed quality and ewe condition tend to be more variable. Avoid feeding the mob according to the lightest ewes. It may be better to draft off the lighter ewes to feed the others correctly.
- B. The change from ewes on a winter rotation to sudden set-stocking for lambing is a factor believed to increase the incidence of bearings. This is due to the potential for ewes to gorge themselves once set-stocked. It may be better practice to break large winter ewe mobs into smaller mobs which are then rotated on 4-5 paddocks before eventually being set-stocked on these paddocks closer to lambing. This can be done immediately after scanning but will depend on the number of paddocks available, and the suitability of these paddocks for lambing.
- C. Ewes carrying multiple lambs are more likely to have bearings on steep terrain than on easier terrain. Although all efforts should be made to lamb twins and triplets on easier contour, it may not be easy to keep them there for 4-6 weeks leading up to lambing. If ewes with twins and triplets, and especially two-tooths with multiples, were to be grazed separately after scanning, preference could be given to them grazing easier contours. Also there is evidence that more bearings occur on paddocks with a higher level of dead matter in the sward (or lower quality, bulky feeds).
- D. It has been shown that by clearing up scald or footrot in pregnant ewes, the bearing incidence reduces, due to less sitting around by the heavily pregnant ewe.
- E. Shearing in the last half of pregnancy (and also in the three months leading up to mating) is likely to reduce the incidence of bearings.



## What's the goss?

June was a month of weddings and honeymoons! **Julie** and fiancé **Nick** got married in Rarotonga, newlyweds **Tara** and **Quayne** attended the wedding and also had

their own honeymoon there, with **Glenda** (mother of the groom) and family also part of the wedding party! From all accounts, it was a beautiful wedding and much fun was had by all. Our very best wishes to Julie, Nick and son **Noah** for some wonderful times ahead.

On a sadder note, we said farewell to our extension technician **Pip Stewart** in mid-

June. Pip is relocating to Waipukurau, as her fiancé **Mike** is now farming there. We will miss many things about Pip, but in particular her infectious enthusiasm and energy - she may be little but boy, you'd never know! Thank you for all that you have done for Totally Vets Pip and all the best with your new ventures and wedding next year.

# The hazards of feeding brassicas

Barny Askin

The feeding of *Brassica* crops has become commonplace and with many winter crops soon to be fed, it seems timely to highlight the hazards that can be encountered. Most crops show a similar range of associated animal health conditions and these are outlined below.

## NITRATE POISONING

Nitrates in plants are eaten and converted to nitrites in the rumen. Nitrites are absorbed into the bloodstream and oxidize the blood to a form that cannot transport oxygen efficiently. Clinical signs of nitrate poisoning include sudden death, difficulty breathing, salivation, dribbling urine and nervous signs. These signs tend to occur soon after introduction to a crop and any stock displaying them should be removed immediately.

The risk factors for poisoning include low temperatures, cloudy weather, sudden changes in diet and the rate of consumption; immature plants and regrowth are also more of a risk compared to mature ones. Crops that have had high nitrogen fertilizer applications are more risky, as are the stalks of crops compared to the leaves. Thin stock appear to be more at risk than those in good condition and cattle are more susceptible than sheep.

High levels of nitrate in feed can be well tolerated but animals need to be introduced to these gradually to allow adaptation of the

rumen flora, a process which should occur over a period of 10 days to 2 weeks.

There is a test for feed nitrate levels that has a very fast turnaround time so we strongly recommend having a crop tested before introducing stock to it.

## RED WATER

A toxin abbreviated to SMC0 can be present in the crop. This is fermented into a compound in the rumen, absorbed into the bloodstream, damaging red blood cells and resulting in anaemia. Clinical signs include death, weakness and difficulty in breathing, poor growth rates and red urine. Unlike nitrate poisoning, these signs usually develop over 1-3 weeks following introduction, and it takes 4-6 weeks for stock to fully recover following removal from the crop.

The main risk factor for red water seems to be the stage of growth of the crop, with the highest concentration of SMC0 after flowering or in regrowth. Crops heavily fertilized with sulphur-based fertilizers can present an increased risk. The other risk factor is the duration that animals are on the crop.

This is a chronic rather than an acute poisoning and there is no test commercially available for this toxin.

## BLOAT

Bloat is often seen when stock are on turnips and is the result of free gas build-up in the rumen. The clinical signs include abdominal discomfort/distension and death. Post mortem usually reveals free gas and turnip leaves with very little froth.

The addition of fibre to the diet significantly reduces the risk of bloat and it is a good idea to make this freely available.

## POLIO

Polioencephalomalacia or thiamine deficiency can result from diets with a high

carbohydrate content, such as turnips, which leads to the production of thiaminase, an enzyme that breaks down thiamine. The consumption of crops high in sulphur can also cause polio as sulphur compounds formed in the rumen destroy thiamine. Symptoms include nervous signs and death.

Other conditions that can be seen when *Brassica* crops are fed include clostridial diseases; emphysema; copper deficiency; iodine deficiency; photosensitivity such as rape scald; teeth problems (especially hoggets cutting their teeth); and footrot.

In summary, despite there being a large range of conditions that can be seen when *Brassica* crops are grazed, the following management factors will help reduce the risk

- Introduce crops gradually over a week to 10 days and never introduce when hungry
- Provide additional feed source containing fibre
- Monitor stock an hour or two after feeding and then at least daily
- Ensure clostridial vaccinations are up-to-date
- Test for nitrates if risk factors are high.



Once again, **Margaret** and **Nigel**, in his capacity of New Zealand Veterinary Association representative, were part of the Kaimanawa Wild Horse muster at the end of May. The horses were mustered effectively despite challenging weather conditions on the first day and one less helicopter than normal. There was plenty of feed in evidence

around the Argo basin, reflected in the good condition of the horses, which was the best they have ever seen in the herd. 62% of the horses mustered were rehomed, with mature colts being in high demand - likely due to the publicity surrounding a Kaimanawa horse as winner of Pony of the Year.

Congratulations to **Chrissy's** boys **Nikora**

and **Kyle** who have both made the Manawatu rugby rep squads - Nikora the U8s and Kyle the U10s. We look forward to hearing all about your teams' exploits!

Finally, well done to our new graduate **Ryan Carr**, who made the front page of June's Vetscript magazine. Ryan is pictured staring lovingly into an alpaca's eyes - awww.

# It's time to worm your chickens!

Eliza Trembath

The best times to worm your chickens are in spring and autumn

A healthy chicken can tolerate a minor worm burden; however, all chickens will need worming 1-4 times per year depending on how they are kept. Chickens kept in a cage on a wooden/concrete floor will probably only require worming once a year whereas free-range chickens will require more frequent worming. A large worm burden will decrease egg production, cause a pale comb, gradual weight loss and depression/droopiness.

We have several deworming options for chickens - please give us a ring or come into the Feilding branch so that we can help you find the best solution.

We also now stock Sharpes chicken hi-lay pellets/mash and chick crumble. Come and see us for all your poultry requirements.

<b>Sharpes hi-lay pellets 25kg</b>	<b>\$26.00</b>
<b>Sharpes mash 10kg</b>	<b>\$11.80</b>
<b>Sharpes chick crumble 10kg</b>	<b>\$13.40.</b>



# Sheep scanning - the advantages

Hamish Pike

Scanning percentage is a key driver of flock efficiency in terms of producing lambs through to weaning. Making use of scanning data can also reduce ewe wastage, lamb losses and improve lamb growth rates which are also key drivers of flock efficiency.

Having information about barren ewes, and which ewes are carrying multiple lambs, also has the following advantages:

1. Identifying and culling dry ewes will obviously lead to increased cash flow, but will also reduce the overall demand for feed over the winter.
2. Lamb survival rates are likely to be improved by improving the birth weights of twin lambs from preferential feeding of ewes carrying multiple lambs.
3. Ewe deaths from twin-lamb disease and bearings in those carrying multiple lambs is likely to be reduced due to preferential feeding and better feed allocation.
4. Ewes carrying multiple lambs can also be allocated paddocks more suitable for lambing. Lamb losses through starvation and exposure can be reduced markedly through preferential provision of shelter to ewes having multiple lambs. Mismothering can also be minimized by lambing multiple bearing ewes on flatter paddocks.
5. By improved feeding of ewes carrying multiple lambs, lamb growth rates will be improved through higher colostrum and milking performance of the ewe. Also, ewes with multiple lambs will be in better condition which will impact on the following mating period.
6. Improved reproductive performance will result from using twin lambs for replacements in the breeding flock in the future.
7. Sheep scanning can also aid in the diagnosis of reproductive problems like toxoplasmosis and campylobacteriosis.

Scanning is also a good time to assess body-condition score of the ewe flock so that lighter ewes can be separated from the main mob. Light ewes can then be preferentially fed without penalizing the rest of the ewe flock.

# Beef cow pregnancy-testing - aim for 95 %

Hamish Pike

When the pregnancy-testing results don't go to plan, have you asked yourself why?

There are a whole lot of reasons for cows not getting in calf such as nutrition; body-condition score (BCS) at mating; abortion; disease; and deficiency e.g. copper and selenium. Don't just blame the bull. Also, \$\$\$ are to be made by not only having less empty cows, but also increasing the rate at which they get in calf.

There are two ways to improve herd fertility:

## 1. Increase the oestrous activity of the cows

The aim should be to have 90 % of your heifers and cows calving in the first 6 weeks of calving. Heifers should be mated at an average of 270kg at 15 months of age. It's a good idea to mate heifers for 42 days only. However, if longer than this, earlier pregnancy-testing can be undertaken

# Neospora outbreak

Hamish Pike

We talk a constantly about BVD as a potential cause of abortion in cattle, but what about the organism that is the cause of most diagnosed abortions in cattle in New Zealand? This is *Neospora caninum*.

*Neospora caninum* is a protozoan parasite, an organism which is similar to *Toxoplasma gondii* - a common cause of abortion in sheep.

The organism appears to be spread by cattle ingesting eggs (or oocysts) on the pasture, and transfer of the organism across the placenta to the foetus.

Dogs can serve as a source of infection. They become infected after eating infected foetal tissue or afterbirth (or raw beef), and then pass oocysts in their faeces. The oocysts are very resilient, and can remain infective in the environment for months.

Rodents, ferrets, stoats and weasels have also been suspected as sources of infection.

Although dogs can shed oocysts in their faeces for several weeks, abortion outbreaks due to *N. caninum* should not be entirely blamed on the farm dog. Dogs are poor hosts for *N. caninum* because they produce only scant numbers of oocysts in their faeces, if any are shed at all. The overall evidence that oocyst challenge from dogs leads to abortion is poor.

Therefore how do cattle manage to have *N. caninum* abortion outbreaks?

The efficiency of transfer of the organism across the placenta is likely to be up to 95%. Therefore calves born with the parasite will in turn pass it on to their offspring. Many cattle are therefore already infected (maybe for years) before any dog has had a chance to be involved.

Keeping dogs away from aborted material and not feeding them raw beef is still best practice. This will not only help prevent *Neospora* abortion but also a host of other causes as well.

Most abortion storms seem to be related to a herd event that reduces immunity (e.g. BVD) in a previously infected herd, causing re-activation of the parasite.

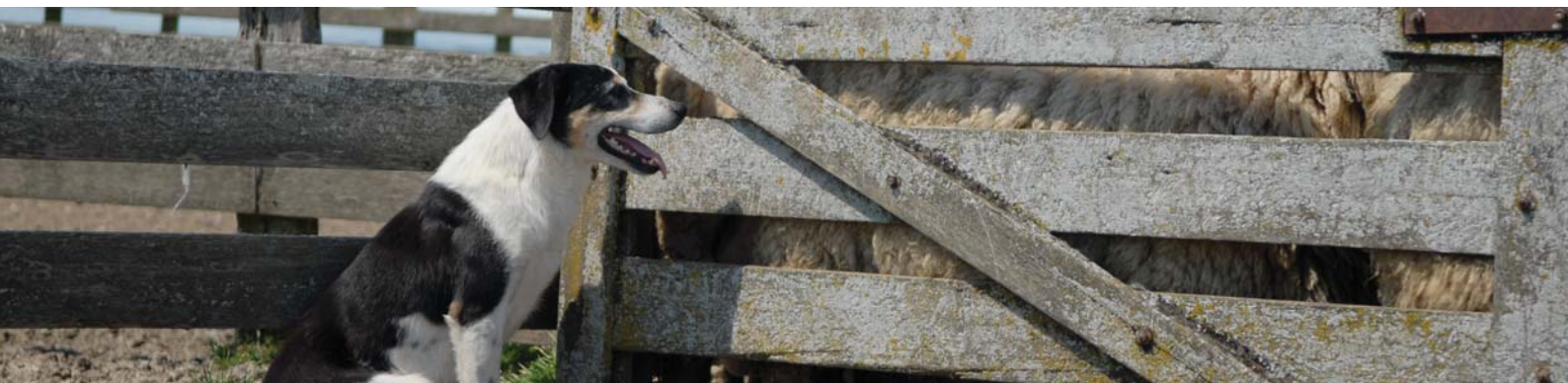
Infected cattle are 3 times more likely to abort than other cattle. However, culling of cows that have aborted is often not practical (because of the high prevalence) and because some cows will abort only once, and then become immune. These cattle (and possibly antibody-positive cows) may be best retained in the herd as

culling of immune cows could lead to further abortion storms if the organism was to be re-introduced into a naïve herd.

Recently, I was involved with an abortion outbreak in a dairy herd primarily due to *N. caninum*. The herd had no history of abortions due to this organism. 25 cows out of 1050 had identifiable abortions over several weeks. We scanned the rest of the herd and discovered a further 45 cows had lost their pregnancy since the herd was first pregnancy tested back in March. There were a dozen or so cows detected with a mummified foetus. Given that most abortions due to *Neospora* occur between 4 and 7 months gestation, it is likely that the worst of the abortion storm has passed - fingers crossed!

However, most calves are likely to be infected at birth, and although it is probable that the majority will show no clinical signs, most of heifer replacements are likely to pass infection to their own offspring - which is concerning to say the least! Calves at birth may display an inability to stand or lack of coordination, limb abnormalities, neurological signs or a "popped-eyed" appearance.

Until more knowledge is gained concerning the exact life cycle of *Neospora*, and the immunity to the parasite, unfortunately no effective preventative regime at this stage can be recommended. A preventative vaccine was withdrawn from the market a few years ago due to lack of efficacy.



(6 weeks after bull out) to identify the heifers calving in the first 6 weeks. Only these heifers should be retained for future breeding. The same tactic can be used for cows with an extended mating period (over 63 days). However, instead of culling the late-calving cows, these can be preferentially managed to calve in better condition (BCS 3.5/5) ensuring that they are cycling by the time the bull goes out the following mating.

## 2. Increase the conception rate

Bulls need to be fertile and also able to do the job. You also need enough of them i.e. 1 bull to 25 heifers. All bulls should be fertility-tested each year to detect unsoundness. It's possible to get a 10 % lift in conception rate by doing this. Also, ensure when buying bulls that they are BVD antigen (virus) tested. This goes for all breeding bulls on your property. Most studs will already have done this before sale, but

it's very important that you check this with the vendor, or your agent. BVD can cause a reduction in pregnancy rate (5-15 %), not to mention the other costs associated with this disease such as abortions and poor health. Totally Vets offers an excellent bull fertility-testing package which is very affordable and effective. Please contact us for details.

Totally Vets can help you improve herd fertility - talk to us now about how to achieve this.

*Catering for all Occasions*



From the beach to the bench top, anywhere, anytime, your portable Kiwi Sizzler BBQ, like these Merial Ancare products will cater for all your needs and won't let you down

See in-store for qualifying purchases

Terms and conditions apply

See Totally Vets for all your spring products and management advice

**Milk Fever**

**Ketosis**

**Sleepy Sickness**

**Grass Staggers**