

Caring for calves: bobby calf welfare
Maximising lamb production post-tupping
Do not forget to plan for your calves
Winter crop minerals and the transition period

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A new product and an old disease

As a veterinary company and as veterinarians, we are constantly being provided with new products and new techniques for animal procedures. Often the “new offer” has an aspect that “goes against the grain” of our traditional thinking or comfort zone.

I have been taught by open-minded professionals (and I guess “from being too slow”) that I must, and Vetlife must, be open to new ideas, carefully prove them, and then promote the truly valuable ones to our clients and their animals.

It is our obligation as animal health professionals to act as a filter and to act as a finder of “things new and good” for our clients. It is an ongoing process and we have learnt that it is a very stimulating and rewarding process.

I write this month about a new breakthrough in cattle parasite control. This new product does not do away with existing technology, but will go on and play a valuable role in an area that we do not have all the answers for.

Alpheus: a new worm drench bolus for cattle

A New Zealand company called Sirona has developed this new and exciting product for young cattle. The background is that sheep drench capsules have, over the last 20 years, been developed considerably to the point where many of the critics of sheep capsules have been silenced. Sirona has adopted all of this latest sheep capsule thinking and technology and has developed Alpheus, a cattle capsule.

In simple terms, it is a three drench combo, but with the white and clear drenches releasing at the start, and abamectin playing out over the full 125 days.

The initial primer in effect cleans the gut out from the start then the larvae ingested daily get blitzed for the next 125 days preventing any new infestation from developing and reducing the energy demands that larval attack of the gut causes for cattle.

The white and the clear drench is contained in a “primer” and, depending on the body weight of the cattle beast, one or two primers are administered. To note, these capsules are for cattle weighing 120 to 300 kg, so they are logically for young stock.

Vetlife had its first capsules go into clients' R1 calves in April and will report back on progress. The use of these capsules within our clients'

stock is on the back of very extensive reassurances of New Zealand trial work.

Given the susceptibility of young cattle to worms in that first year, this product promises to not only deal with the gross issue of frank parasitism but also wider sustainability considerations. We hope to see additional kilograms of weight gain over the treatment period (as we see in sheep) due to the daily release for 125 days of abamectin. We would also hope that those additional kilograms of body weight will be retained right through life.

A plea to deal with Johne's disease in your herd or flock

Johne's disease (JD) is unfortunately a relatively common condition within our Vetlife clients' sheep flocks and deer and cattle herds.

As time progresses, we understand more and more about the “fiscal drag” of such diseases and conditions, e.g. BVD and JD, on animal productivity. These diseases are very deceptive in that they largely conceal the impact that they have on our herds and flocks, and lull us into a false sense of complacency. As well, the within herd or flock prevalence (the number of animals infected or affected) subtly increases over time, generally under the radar.

Over the last 15 years Vetlife and Vetlife vets have expended considerable effort to understand this disease and to be in a good position to advise and assist clients in the control of JD.

JD is one of those diseases that is best dealt with by laboratory testing and culling. Often the ability to cull animals based on disease is limited due to other more pressing culling factors such as pregnancy. But once the full extent of the value of control is understood, culling for JD often becomes a priority.

I mention JD again simply as a reminder. If you feel prompted to ask our Vetlife colleagues about JD control, I am sure we can assist with a control programme.

Have a careful winter.

Best regards,
Adrian Campbell
Vetlife Practice Principal



Caring for calves: bobby calf welfare

Animal welfare is at the heart of any good farming business. Our responsibility for the well-being of stock starts at birth and continues, not only while they are in our care, but also beyond the farm gate.

Regardless of their future use, all calves should be treated with care and respect and reared in a healthy and safe environment. It is important that the dairy industry is seen to step up to this issue and eight primary industry organisations (including the New Zealand Veterinary Association and DairyNZ) are working to eradicate the mistreatment of bobby calves.

As part of this, Vetlife has been asked to organise and participate in four farmer roadshows held in June throughout the Canterbury region. These will raise awareness of farmers' responsibilities regarding the welfare and well-being of bobby calves and promote a consistent good practice approach toward the care of these animals.

Insisting on the highest standards of animal husbandry and welfare on New Zealand farms is good for:

- The animals.
- Farmers, farms and farm teams.
- The farming industry and for New Zealand.

This workshop will be useful for farm owners

and managers involved in decision making in the care of bobby calves.

All workshops will be advertised via the DairyNZ website, email, social media and with involvement from other stakeholders such as Federated Farmers and the Dairy Women's Network. There will also be local promotion via Vetlife clinics and newsletters. Those wishing to attend will need to fill in an online registration form on the DairyNZ website. Each workshop is designed for 20 to 28 (maximum) attendees and will last for approximately one and a half hours.

Workshops will be held:

- Methven: 7th June
- Ashburton: 9th June
- Selwyn/Rakaia: 14th June
- Geraldine: 14th June

Time and location will be provided on registration.

Workshops are open to all dairy farmers in these regions so register early to ensure your place.

There are workshops hosted by other organisers in other regions so if your region is not listed above check the DairyNZ website.

Andrew Bates
Vetlife Temuka

Regardless of their future use, all calves should be treated with care and respect and reared in a healthy and safe environment.



Maximising lamb production post-tupping

Although the number of potential lambs has already been determined, it is vital that you maximise the number of these reaching weaning and at good weights. After the prolonged dry spell most dryland farms will have even more pressure on winter feed; care needs to be taken as nitrates will also be higher after droughts, so test first.

Nutrition of the pregnant ewe is the single most important factor influencing lamb survival. Before day 90 of pregnancy, underfeeding of the ewe impedes placental development and hence foetal development and the longer-term survival of the newborn lamb, especially multiples. During this period ewes should be fed at maintenance (i.e. 2% of LW as DM) on covers of at least 900 kg DM/ha.

Scanning is essential so you can prioritise feeding; ideally condition score and draft into singles, good condition multiple bearing, and lighter multiple bearing ewes. These lighter ewes will benefit from a worm drench and the best available feed to regain condition before the foetal nutritional requirements over-ride.

In the last trimester about 70% of foetal growth occurs so the demand for nutrients, especially for multiples, exceeds the ewe's dietary supply

causing her to mobilise fat reserves. This can lead to pregnancy toxemia and less glucose for the foetus and thus lower birthweights and fat reserves with poorer survivability. For the last six weeks of pregnancy allow ewes 3% of LW as DM/day on covers of at least 1,200 kg DM/ha for multiples. This level has a direct effect on birthweight, lamb survival, lactation and hence weaning weights.

If ewes have wintered on brassicas they should have received a shot of Flexidine pre-tup or give two oral doses of 250 mg iodine at eight and four weeks pre-lamb. This is particularly applicable to mated hoggets as they are often on winter crops for longer periods and thus more likely to become deficient and consequently produce lambs with goitre. These lambs are often born dead or die soon after birth. Low iodine levels will reduce lamb survival especially in cold conditions.

Other pre-lamb treatments should be done approximately two weeks before the start of lambing so ewes lambing in the first four weeks will pass on good immunity to the lambs via colostrum. Late lambers should be separated and vaccinated at a later date. As well as your usual clostridial vaccinations, consider what worm drench, if any, should be used. The choice

of product may vary depending on ewe age, whether multiple bearing and body condition score so talk to your Vetlife vet about the options.

When set-stocking consider other factors affecting lamb survival especially for multiples:

- Ideally flat paddocks or slopes less than 25 degrees.
- Shelter from the prevailing wind.
- Away from excessive disturbances such as a busy road.
- No hazards such as waterways or under-runners.

The consequences of suboptimal feeding and loss of condition are reduced lamb survival, increased ewe (and lamb) deaths, increased susceptibility to diseases (such as parasitism and lice) as well as reduced mothering ability.

It is advisable to do a feed budget now so you can be prepared for any possible shortfalls before they occur.

Chris McFarlane
Vetlife Dunsandel

Do not forget to plan for your calves

You have dried off and now it is the waiting game for calving to hit. Whilst you wait, take some time to think about how you are going to deal with your calves this season. Have you got a calf-rearing plan in place that everyone is aware of? Have a look below for some considerations for this coming season.

Sheds

If you have not already, calf sheds need to have been cleaned out from last season. All the previous bedding needs to be removed and have had plenty of time to dry out and get some sun exposure. They also need to be sprayed down with a bactericidal and virucidal product.

With shed selection:

- Ensure adequate airflow (no ammonia smell).
- Avoid overcrowding 1.5 to 3 m² per calf with no more than 25 calves per pen no matter what the size.
- Solid partitions between pens.
- Allow adequate drainage so bedding remains dry and ensure it is deep enough (minimum 15 to 20 cm regardless of what is used).

Colostrum

Calves are born with a very immature immune system. No antibodies from their mum cross the placenta. Therefore the only way that they can

get the antibodies needed to fight infection is from colostrum.

By 12 hours after birth the ability of calves to absorb antibodies from colostrum to develop a healthy immune system is decreasing.

How to solve this?

- Only use colostrum from second calvers or higher as this is likely to be of better quality.
- Measure the quality of colostrum (talk to your Vetlife vet about ways to do this).
- Collect fresh colostrum immediately from the first milking of those cows calved that day into clean test buckets and use it.
- Store good quality colostrum for later in the season calves when colostrum quality is declining (potassium sorbate with refrigeration, freezing).
- Pick up calves twice a day to increase the chance of calves getting colostrum before 12 hours (if this cannot be done look at tubing in paddock).
- Tube feed 2 L of good quality colostrum (preferably feed twice within 12 hours).
- Ensure navels are sprayed with iodine ASAP as they provide easy access for pathogens.

These are just a few considerations for the calf-rearing season. For more information contact

your Vetlife veterinarian. Vetlife also offers calf training talks for you and your staff so that you can give the future of your herd the best start possible.

Olivia Sutton
Vetlife Dunsandel





Perfection is in the eye of the beholder

Last week I found myself reminiscing on a second year animal science lecture. It was fairly late on a Friday afternoon, the lecturer walked in and asked us to brainstorm what characteristics we would like to have in "the perfect sheep". After much deliberation and soul-searching, we realised it was not going to be an early finish and down to the pub, but we stayed the course and as a class we concluded some attributes of this animal as:

- A sheep which breeds all year around. i.e. not restricted to seasonal influences on the breeding cycle.
- A sheep which has multiple young per breeding cycle.
- A sheep which has a high liveweight gain from an early age and matures at relatively set liveweights.
- A sheep which has a high protein to fat ratio in its tissue.
- A meat which is lean, easy to cook, does not generally taint with age and stays relatively tender.
- A sheep which has a high efficiency of liveweight gain to feed ratio i.e. minimal kg DM consumed to kg LW produced.
- A sheep which can utilise the feed it is provided to provide quality lean tissue for human consumption.

After listing these and other attributes, we thought of our future careers and how wondrous it would be to create such a fantastic animal. In my own mind I listed a range of breed names such as the Trottdale or Trotsworth – what an animal, fit for any purpose and a revolution to the New Zealand sheep industry. Unfortunately at around this time of reflection, the lecturer brought us all crashing to the ground saying that this animal has already been created and has been around for a very long time.

It is called the pig.

Monogastrics like you and me, chickens and pigs are very different nutritionally, biologically speaking, than ruminants such as cattle and sheep. From a nutritional feeding perspective, pigs and chickens are great, just great. The protein we offer them is what they consume; they (and ourselves) utilise sources of crude

protein in the diet offered to create their own protein in the form of lean tissue. This way we can target the sources of protein offered to them; we know exactly the breakdown of the protein offered, we know exactly the breakdown of the protein composition of the lean tissue in pig meat. This is why pigs can be fed high quality sources of fish meal and high quality amino acids. We can, and do, alter their diet to nearly exactly what they require dependent on their size, age, sex and state of maturity etc.

Ruminants, on the other hand, use dead bugs in their rumen as their primary source of protein. All those trillions and trillions of bugs in the rumen use the protein from the grass (and other feed sources), completely break it down and re-constitute it into what we call microbial protein (loads of dead bugs!). The problem is we do not know the breakdown of that microbial protein and when we try and provide ruminants with high quality sources of protein such as fish meal etc., those pesky bugs breakdown that protein to its most basic building block all for themselves and chances are they decrease the quality of the protein (i.e. the composition of microbial protein is potentially poorer than fish meal protein when compared to lean tissue requirements).

This is why when describing the quality of cattle and sheep diets, we always talk about the crude protein value and generally do not take it any further than that, other than ME etc. Crude protein is a measure of the nitrogen content in feeds and that is where we leave it. We pretty well know and understand the crude protein demands of ruminants i.e. minimum requirements of MA cows is 12% and R1 heifers is 14% crude protein in the diet. As producers, along as we maintain the crude protein above these levels, all those bugs in the rumen should be happy doing what they do i.e. they have enough building blocks to work with to create their own "microbial protein". When we offer ruminants feed which is lower than their demands for crude protein, we can sometimes see reduced animal performance as the bugs in the rumen are not producing enough microbial protein. If it is for a long enough period, just like all animals, they will start to breakdown their own lean tissue to fulfil metabolic

requirements and hence they lose weight etc.

Pigs and chickens are superior, from an animal efficiency basis, when compared to ruminants for the reasons described above when trying to determine the "perfect" animal, as they breed and grow so prolifically and their ability for genetic variation and genetic selection is so much higher than the typical ruminant. An example of this is the typical size 16 chicken purchased at your local supermarket, it is around 42 days of age; through genetic selection, breeding and feeding we are refining these production systems to be more and more efficient.

An understanding around protein use efficiency in the cows and sheep we manage is an important consideration when thinking of their diet and requirements. i.e. this is why we are careful to describe R1s on fodder beet requiring good quality silage as their supplement source versus straw and hay which is ideal for MA cows and older stock. Animal scientists spend their careers trying to identify methods to "bypass" high quality sources of protein through the rumen thus making it unavailable to those bugs but able to be digested by the animal in the lower gastro-intestinal tract. We have recently realised that we can select for lines of cattle which are more nitrogen efficient than others within breeds (something to contemplate for environmental considerations).

Unfortunately for you and I alike, we will not be seeing the Tromney any time soon but knowing and defining efficiency characteristics of the livestock we manage is important when understanding the performance of our production systems both biologically and economically. Through the science the wider industry is performing through the likes of Agresearch and Lincoln University, we are constantly making productivity and efficiency gains in our ruminant-based agriculture industries. Though a long way off the monogastrics, we are slowly but surely making inroads to enhance our industries worldwide.

Craig Trotter
Centre for Dairy Excellence



Winter crop minerals and the transition period

Winter crop

Fodder beet feeding over the winter has been steadily increasing in recent years, along with this, popularity in growing fodder beet on the platform has also been increasing. This has led to increased crop yields and winter live-weight gains.

It is well-known that fodder beet crops have lower levels of phosphorus than other feeds commonly fed over the winter period. This has led to an increase in the incidence of low phosphorus-related metabolic disease during the winter and springer/calving periods in cows grazing fodder beet over the winter period.

The simple solution to this has been the supplementation of di-calcium phosphate. The recommended feeding rate is 50 gms/cow/day when on fodder beet. If phosphorus deficiency is diagnosed, then doses of 70 gms/cow/day can be given to correct this deficiency. Di-calcium phosphate is generally mixed into a slurry in water and poured over silage prior to being fed out. However, there are many ways in which di-calcium phosphate has been fed. Being an insoluble product can present challenges for dosing over the winter period, especially where no supplements other than straw are fed to cows on the beet. Another option for dosing is a loose-lick mineral pre-mix fed free-choice in the paddock. This supplements phosphorus along with salt, magnesium and a full range of trace minerals (using aniseed oil as a flavouring).

Phoscal is a cost-effective, high quality, di-calcium phosphate supplement available at Vetlife. Due to the high quality of Phoscal, its recommended feed rate is 40 gms/cow/day. Also available is a fodder beet formulated loose-lick mineral supplement. Please enquire with your Vetlife vet for further details.

The transition period

The transition period, commonly known as the springer period, is the stage at which the cow is transitioning from being a dry cow to a lactating cow.

There are two main topics regarding minerals over the transition period; calcium status and Dietary Cation Anion Difference (DCAD).

Low blood calcium levels (<8.59 mg/dl) have been linked to low neutrophil function in dairy cows. Research has been conducted where blood calcium and neutrophil function was measured in a group of cows 15 days out from calving, at three-day intervals until after calving. Sub-clinical milk fever and 40% increased incidence of metritis and retained foetal membranes (RFMs) were measured in cows which had calcium levels below 8.59 mg/dl and associated reduced neutrophil function. This research, along with other papers linking blood calcium levels with metritis, RFMs, displaced abomasums and reproductive performance, show the importance of adequate blood calcium levels (>8.59 mg/dl) in dairy cows over the transition period.

It is well-known that lime flour must not be supplemented to cows during the transition period (the springer cow period), and for good reason, as lime flour increases blood pH due to its strong alkalinity. An increase in blood pH causes a reduction in the cow's ability to mobilise and absorb bone calcium which is not favourable during the transition period causing higher incidence of metabolic disease and other associated effects of calcium deficiency. Calcium salts (calcium sulphate or calcium chloride) are acidic however and cause a decrease in blood pH. Supplementation of calcium salts over the transition period can be very effective in safely boosting blood calcium

levels and decreasing blood pH thus increasing the cow's mobilisation of bone calcium and further increasing blood calcium status.

DCAD is measured in milli-equivalents (meqs) and indicates the relative acidity vs alkalinity of the diet. It is calculated using an equation which takes into account the sulphur, chloride, sodium and potassium concentrations of the feed. The DCAD during the springer period often ranges from 200 to over 500 meqs. Research shows a clear relationship between a high dietary DCAD and high incidence of metabolic disease, metritis, RFMs, and displaced abomasums, and reduced reproductive performance. To reduce the DCAD, more acidity needs to be supplemented in the diet or more alkalinity removed. Alkalinity is removed by reducing the amount of potassium in the diet (by reducing pasture and pasture silage intake, these feeds generally contain high levels of potassium) as this will reduce alkalinity, in doing so reduce the DCAD of the diet. Along with this the DCAD can be reduced by feeding anionic salts which work to acidify the diet and subsequently the blood.

By reducing the DCAD and increasing blood calcium levels, science has shown that a reduction in metabolic disease, metritis, RFMs, displaced abomasums and an increase in reproductive performance can be achieved.

More information is available at Vetlife on transition mixes containing anionic salts, calcium salts, phosphorus, monensin and trace minerals, please talk to your Vetlife vet.

Shaun Balemi
Dairy Nutritionist, Agvance

For full references on the research referred to above please contact Shaun Balemi through your Vetlife vet.



Warmth, hydration and good nutrition



Officially it is the beginning of the winter months and we need to assess our working dog's body condition and review how warm their living conditions are. It is important to ensure they have clean, fresh water available and to consider increasing their food intake as the temperatures drop, especially if you are in some of our colder areas of the country.

There are many ways to keep your dogs warmer in winter including adding a sack or flap over the entrance to their kennel to prevent cold wind entering, or adding some form of bedding to insulate against draughts coming from underneath. If your dog is one of those who drags any form of bedding out of the kennel as soon as you put it in, perhaps a coat is the answer. We have found that a large percentage of working dogs enjoy having a coat at night and these can also help to prevent calluses and sores on their joints.

Discuss with your Vetlife veterinarian any lameness problems which, if diagnosed as arthritic changes, may benefit from one of the medications available which can help dogs suffering from inflammation and pain.

During winter months it can sometimes be difficult for your dogs to have access to water especially if it freezes overnight, so remind everyone to break the ice on water containers and troughs.

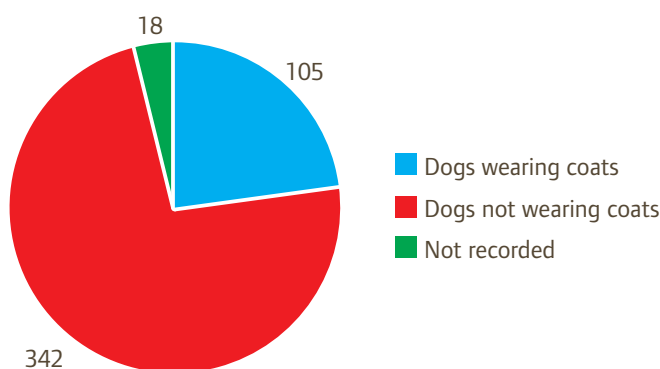
Take a good look at your dog's body condition and for any bearded or long-haired collie types, run both hands over them to get a more accurate assessment. Think about their work requirements ahead and whether they need a build-up or only require maintenance-level feeding. We highly recommend any of the

premium working dog formulas as a component of a working dog's regular diet. These formulas have had years of science-based research and are excellent value for money.

Thanks again to the farmers providing data from their working dogs for the TeamMate project - you are contributing to a large database providing valuable information which has never been recorded before.

Helen Williamson
Vetlife

Round 1: Coat wearing - TeamMate project



Effectiveness of calf scour vaccines

One problem with convincing farmers of the successfulness of a product is that sometimes the effect observed in trials is very small even though economically significant, or the observed effect is very distant from the input trialled. In the case of calf scour vaccines though, there are startlingly simple cause and effect trials that can be interpreted with just first glance analysis.

A challenge trial, as the name suggests, is a trial where a vaccinated animal group is directly and intentionally challenged with the disease they were vaccinated against. One summary of nine trials all on one product showed that when used to label recommendations the scour vaccine reduced mortality in calves challenged with scour pathogens 8 to 12 hours after birth from 56% in the controls to 5% in the vaccinated animals. Another product was tested in a similar way, although the timing of the challenge was a little late this study had 100% mortality in the unvaccinated group while those vaccinated had 0%.

These studies are easy to understand as the difference in outcomes for the controls and the vaccinated subjects is so vast. There are some intricacies such as timing of challenge that can be questioned but at the end of the day the unvaccinated animals certainly got sick.

This year there are four calf scour vaccines available on the market. Each has different features and prices that mean it is worth discussing them with your Vetlife vet if you are choosing to use them. However, all four have some common ground which is essential to achieving results comparable to the trials above. All four vaccines are designed to be given to the cow in late pregnancy as mentioned in articles elsewhere in this newsletter the calf receives little or no immunity from the cow while in utero. So to get protection from the vaccine given to its mother it is essential that the calf receives adequate and timely colostrum to absorb antibodies into its bloodstream. Secondly, all four vaccines suggest ongoing feeding of some level of colostrum from vaccinated cows for around three weeks to provide an antibody lining to the gut which further protects calves.

Again mentioned elsewhere, there is a 12 to 24 hour window that antibodies can be absorbed from colostrum into the calf's bloodstream. Once this time has elapsed the cells in the gut lining undergo "closure" after which they will not permit any antibodies to pass into the bloodstream. Closure is not an instant phenomenon; the graph in Figure 1 shows that this absorption drops quickly and even by 12

hours is significantly less than the first hours of life, by 24 hours there is very little absorption still occurring.

Antibodies absorbed into the blood create an instant immune system for the calf. Feeding milk/colostrum from vaccinated cows also provides high levels of antibody in the gut. These antibodies provide a protective effect by coating pathogens in the gut preventing them from attaching to and invading gut lining cells. Figure 2 shows on the left a Rotavirus particle. The same particle, on the right, is coated in antibody which shows up as additional mass on the projections. This coating hinders the particle from attaching to or invading gut cells.

Calf scour vaccines have been shown to work well. There are a variety of options available but if you do choose to use one it is essential to manage the calves correctly. Calves must receive 2 L of colostrum in the first 24 hours (12 hours is much, much better), and must be fed colostrum or milk from vaccinated cows for 21 days thereafter. For further information on how a calf scour vaccine could be applied on your farm talk to your local Vetlife vet.

Duncan Crosbie
Vetlife Temuka

Figure 1

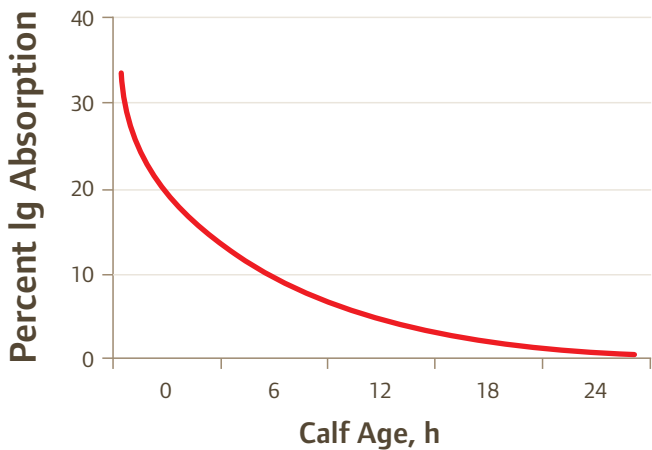
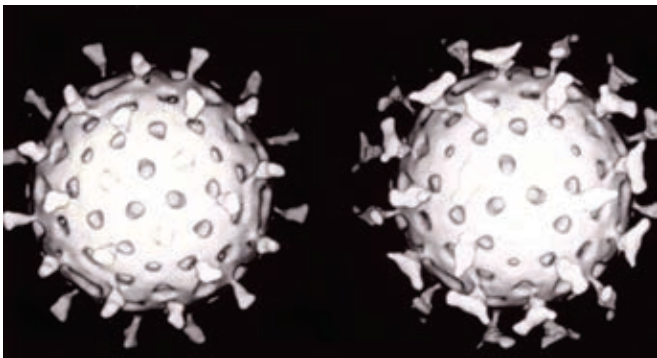


Figure 2





Upper Cow Roadshow

The Upper Cow Roadshow had a great turnout at its many locations including Oxford, Temuka, Alexandra and Ashburton. The theme of the day was the downer cow and speakers focused primarily on identification, treatment and nursing. Speakers included MPI, Centre for Dairy Excellence, Boehringer Ingelheim and Glenmark Veterinary Limited.

Guest speaker, Dr Phil Poulton from Tarwin Veterinary Group, Australia, spoke at length on his research focusing on the nursing care of downer cows and how this can impact their recovery. In his presentation, Dr Poulton outlined how improving the nursing care of down cows can improve success rates for those cows down for more than 24 hours. Complications which arise from prolonged recumbency can include nerve damage in the fore-limb and hind-limb, muscle damage, bed sores, mastitis, pneumonia and hip dislocations. He strongly advocated for farmers to set up a dedicated nursing area for these cows to reduce the occurrence of these complications and improve outcomes. Moving cows to the nursing area using the bucket of a tractor was a practical

idea, information on how to do so safely is on the Dairy Australia website.

Dr Poulton identified the creation of an effective nursing area as one which had deep bedding, effective barriers to confine the cows on the bedding and was in a convenient location to allow frequent observation and rolling of downer cows from one side to another.

Other key points from his presentation included ensuring the primary cause of becoming down

was identified and treated promptly; the use of non-steroidal anti-inflammatories for the first three days to reduce inflammation; using effective and supervised lifting techniques and identifying when euthanasia may be the most appropriate option to prevent suffering and ensure cow welfare.

Emilie Webb
Vetlife Oamaru



Energy Watch



At some stage in our lives most of us have competed in a sport or strenuous activity that has required physical abuse of our bodies and outright stamina. On the other side of the coin most of us have also felt "under the weather" at some stage. Now picture having to compete in that sport or activity while feeling weak and energy deprived.

In the spring our dairy cows are professional athletes (without the pay packet). What we ask of them is not dissimilar to the demands of any athlete: walking long distances day in, day out, often in adverse weather; throw into the mix giving birth and then being asked to get straight back into the competing arena.

In early lactation most New Zealand dairy cows experience negative energy balance and they start breaking down fat to keep meeting their high energy demands. We see this as cows

losing body condition. When this fat breakdown becomes so rapid that the cows cannot cope, we see the development of ketone bodies and subclinical ketosis (SCK) develops. These ketone bodies can be measured in the blood as BOHB, a term you have probably heard before.

Like athletes, energy levels become vitally important for cow performance. We know from a number of studies that SCK is widespread in New Zealand dairy herds. SCK has a significant effect in increasing the risk of endometritis and reducing six week in calf rates and subsequently less days in milk the following season. The average effect of SCK on reproduction is a staggering 7% reduction in six week in calf rates.

This season Vetlife has available a quick, inexpensive on farm test called Energy Watch which gives an instant "snapshot" of your

herd's energy status post-calving. We use an electronic precision meter and test strips to measure blood BOHB levels from randomly selected cows. These results are available within seconds so we can make informed decisions immediately.

The launch of Energy Watch now provides us with a tool where we no longer have to second-guess whether this costly disease is impacting herd performance.

For more information about having your herd tested for SCK please talk to your local Vetlife vet. The procedure is very fast and uses little equipment so is surprisingly inexpensive.

Aaron Gill
Glenmark Veterinary Limited



Spring emergencies

Some of the worst feelings in terms of being a vet are telling the farmer to shoot the cow or being called in too late to get the best result for the cow. Although sometimes it is unavoidable, a big proportion of these animals can be saved if you ring your Vetlife vet at the right time. There is a wide variety of cases that can be put into this category. Below I have only mentioned the common spring emergencies with a bit of a description to help diagnose them sooner to avoid the above outcomes.

Difficult calvings

If the cow is not making any progress after an hour of labour, it needs assistance. Live calvings should be given the priority as early intervention will increase the survival rate of the calf. Ring your Vetlife vet if you are not making any progress after 15 mins or if you are too busy doing other stuff on the farm to attend to the cow promptly.

Prolapse

The three main things that decide the outcome of a prolapse are cleanliness, amount of blood loss and trauma. All these factors are time dependent – the longer you wait the poorer the prognosis. It is better not to make the animal walk long distances as this will lead to further trauma. If the cow is down, leave her there. Give her a bag of calcium under the skin (to keep her alive, but do not aim to get her up) and keep a bucket of warm water ready until your Vetlife vet arrives.

Dislocated hip

This happens quite commonly to cows on slippery surfaces or to a cow with a history of nerve damage due to calving/milk fever. The common signs include: sudden onset of severe lameness often not using the limb at all – the affected leg appearing a bit shorter, toe pointing away from the body and asymmetry of the hips when you look from behind. The chances of putting it back in are good with early intervention. The prognosis is guarded if the hip is dislocated for over 24 hours.

Downer cows

Just cover the basics (calcium, magnesium and phosphorus) in terms of metabolics. Ring your Vetlife vet rather than waiting for a day or so if the cow is not responding or showing any progress, as a whole lot of other secondary factors like muscle and nerve damage come into play after that, which make the prognosis poorer.

Calf scours

If there is an outbreak of calf scours with the majority of calves in a pen affected, get veterinary assistance as soon as possible. It is important to formulate a plan to prevent the further spread of infection and to effectively treat those already affected. Severely affected calves usually need intravenous fluids to fix dehydration.

Acidosis

This is becoming more common with the increase of fodder beet feeding. Again, get veterinary assistance as soon as you suspect a problem to treat any down cows and to help establish a feeding plan for control and prevention. Any down or wobbly cows you see are the very small tip of a very large iceberg. A plan for the rest of that iceberg is at least as important as dealing with the obviously sick individuals.

Nitrate poisoning

Suspect nitrate poisoning if you find quite a few animals down (or dead!) or see them looking depressed, dopey or drunk with a history of going onto a newly grassed paddock, recent urea application in that paddock or if they have been introduced to kale recently. Prognosis in nitrate poisoning is excellent with early detection and treatment with methylene blue which works as an antidote. Without treatment deaths are extremely likely. Unfortunately exposed animals may abort for several weeks after nitrate poisoning.

Jagdeep Singh
Vetlife Temuka



Achieving eradication targets mean fewer TB tests



The farming industry's investment in TB eradication is proving to be effective as OSPRI lifts stock movement restrictions and reduces testing requirements in many areas.

The reductions to disease control areas affects 5.3 million hectares and nearly 10,000 herds, resulting in 500,000 fewer TB tests. The changes are effective from 1 March.

Farmers in regions where movement control areas have been removed will benefit from the freedom to move stock without any pre-movement tests, or from significantly less TB tests as special testing area requirements are

reduced. In the northern South Island, changes affect 2.6 million hectares and 5500 herds, and mean 128,000 fewer TB tests.

Tasman dairy farmer Phil Riley is used to pre-movement TB testing after 22 years, but will be glad to see the back of it. "A lot of us had got used to it, and it's just another job that you have to do on the farm. But it's great to see the back of it, because it makes it that bit more difficult if you happen to be selling your farm or stock."

Since 2011, OSPRI's TBfree programme has eradicated TB from 1.2 million hectares and

infected herds are down to 35 - a huge decrease from nearly 1700 in 1994.

Riley says, "We've only got to look at the progress OSPRI's TBfree programme has made to see that as we get better at establishing where the risk is, movement control areas will get smaller and smaller."

OSPRI Chief Executive Michelle Edge explains that as OSPRI's work proves successful in each area, disease control areas are reviewed based on detailed scientific analysis and data modelling. Accordingly, where TB eradication targets have been met the testing requirements are reduced.

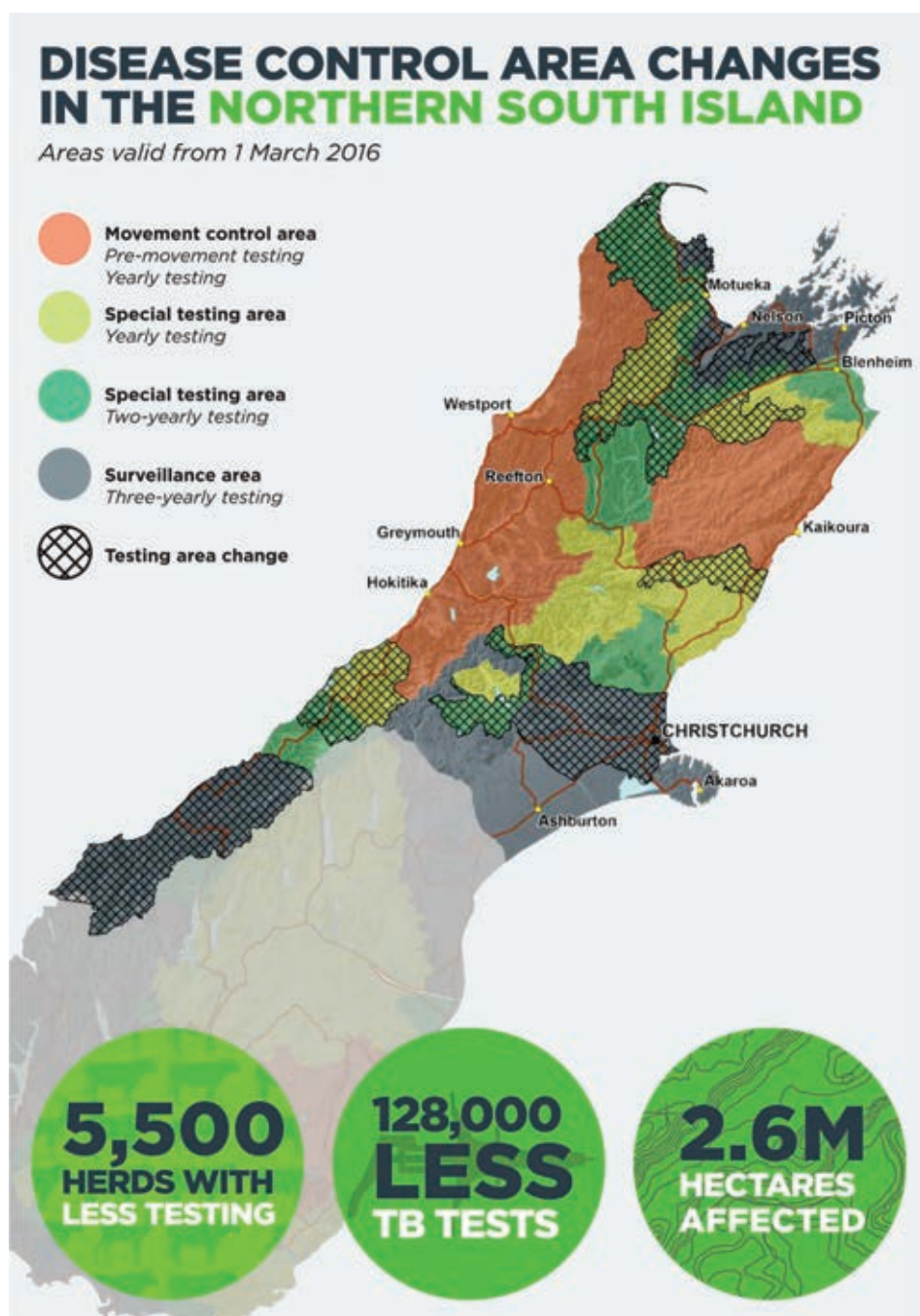
"The progress of OSPRI's TBfree programme is a credit to farmers and the industry and Government organisations that are shareholders and investors in the TBfree programme and is another step towards New Zealand becoming TB-free."

The plan for how OSPRI manages TB is likely to change from 1 July 2016 after a recent review of the National Pest Management Plan. A proposal in response to the review was developed by an independent group comprising key investors and stakeholders of both industry and Government. This process included scientific modelling, a review of operational outcomes and a full public consultation process. The review established that eradication of TB is achievable. The proposal is currently with the Minister for Primary Industries for approval.

OSPRI's TBfree programme currently divides the country into a number of disease control areas, each with different TB testing requirements depending on the risk of TB being transferred from infected wildlife (mainly possums) to cattle and deer. Intense TB testing, movement control and both ground and aerial pest control are used to stop the spread of TB and continue its eradication nationwide.

Further information

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