TOTALLY VETS ANIMAL CARE & EXPERTISE

VET notes

YOUR TOTALLY VETS NEWSLETTER ALL ABOUT ANIMALS ON YOUR FARM **DEC 09 / JAN 10**

Holiday hours

		Feilding	PNth
21 Dec	Mon	8 - 5	8 - 5
22 Dec	Tue	8 - 6	8 - 5
23 Dec	Wed	8 - 7	8 - 5
24 Dec	Thu	8 - 5	8 - 5
25 Dec	Fri	Closed	Closed
26 Dec	Sat	9 - 2	Closed
27 Dec	Sun	Closed	Closed
28 Dec	Mon	Closed	Closed
29 Dec	Tue	8 - 5	8 - 5
30 Dec	Wed	8 - 5	8 - 5
31 Dec	Thu	8 - 5	8 - 5
1 Jan	Fri	Closed	Closed
2 Jan	Sat	9 - 2	Closed
3 Jan	Sun	Closed	Closed
4 Jan	Mon	Closed	Closed
5 Jan	Tue	8 - 5	8 - 5
6 Jan	Wed	8 - 5	8 - 5
7 Jan	Thu	8 - 5	8 - 5
8 Jan	Fri	8 - 5	8 - 5
9 Jan	Sat	9 - 2	Closed

Normal hours resume on
Monday 11 January 2010

Please note that a veterinarian will be available at all times for emergencies only. If your animal is in dire need of a veterinarian outside the above hours, please phone 06 323 6161 or 06 356 5011.

Sustainable - together

Paul Wiseman

The 100% clean and green image under which New Zealand trades its major exports with the world appears to be under challenge. Tourists are asking what the green stuff in the rivers is.

Sustainability advocates cry "less nitrogen, less excrement and fewer animals to contaminate our waterways". The world's population continues to grow. The demand for food continues to rise. The available arable and agricultural land continues to decline. The conflict is obvious!

Animals that haven't been domesticated for farming purposes continue to struggle for survival as voracious humans soak up their habitats. For an animal to survive today, is it better if they're farmed by humans?

As Kiwis, I suspect we're all quietly quite proud of our clean and green image. After all, for many of us that is what New Zealand's all about - the great outdoors. I also suspect we all want the lifestyle we have grown accustomed to and all the paraphernalia that goes with it. Sadly we have to earn them both. Bugger!

For a long time, and there seems little likelihood of change in the near future, New Zealand has paid for these privileges from our major exports including dairying, agriculture, horticulture and from tourism. A recent survey indicated urban dwellers have considerable empathy with their rural cousins. On the other hand, those living in rural areas felt their urban cousins did not understand their problems.

Most of us want to enjoy what New Zealand has to offer. Most of us don't mind sharing it with a few tourists. Most of us don't mind working for it. A lot of us are dependent on the industries that are our major export earners.

As rural veterinarians, our role in sustainability is to contribute to the economic increase in the productivity of farming. An holistic approach to the care, wellbeing and survival of the geese that lay the golden eggs may well be the best avenue to achieve this.

Totally Vets current stock health

Testing bulls for their capacity as herd sires is not a common practice on dairy farms.

This season, Barny looked at 26 bulls on three properties and three of those bulls failed a physical examination, semen evaluation and modified serving-capacity test. Extrapolating from this small sample suggests that 10% of bulls run with heifers or used to tail off the herd just won't cut the mustard. Testing bulls well before they're needed may be one of those jobs that needs to be scheduled earlier next year.

Lame cows seem to be the most significant health issue on many dairy farms right now. Lame cows cost you time and money, they are a serious welfare problem and they affect staff morale. Lameness is unlikely to go away and

HA HA

Dear mum

Peter's mother came for dinner. She couldn't help but notice how lovely Peter's flatmate, Joanne, was. She wondered if there was more between Peter and Joanne than met the eye. Peter volunteered, "I know what you must be thinking, but I assure you, Joanne and I are just flatmates."

Later, Joanne came to Peter saying, "Since your mother came to dinner, I can't find the frying pan. You don't suppose she took it, do you?" "I doubt it, but I'll email her just to be sure."

Peter wrote: Dear Mum, I'm not saying you did take the frying pan from my house. I'm not saying that you did not. The fact remains that it has been missing since you came to dinner. Love Peter.

The reply came back: Dear Son, I'm not saying that you do sleep with Joanne, and I'm not saying you do not. The fact remains that if she were sleeping in her own bed she would have found the frying pan by now. Love Mum.

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5-in-1, 6-in-1, 7-in-1 or 10-in-1? What the %*## do I use?

Barny Askin

Deciding upon a vaccination policy against clostridial disease could be likened to choosing an insurance policy for your home.

From 5-in-1 through to 10-in-1, there is an increase in the cover provided and this comes with an increased premium. The decision process when choosing the policy is also similar. It boils down to how risk-averse you are and what your level of exposure is.

Clostridial diseases are ubiquitous and those commonly seen in New Zealand include blackleg, black disease, pulpy kidney, tetanus and malignant oedema. 5-in-1 vaccination protects against these. A very severe clostridial disease causing the aptly named "sudden death syndrome" was first diagnosed in New Zealand a few years ago. To protect against this, 10-in-1 (Covexin 10*) was produced. This vaccine gave protection against *Clostridium perfringens* types A, B and C, *C. sordellii* and *C. haemolyticum* as well as the five covered by 5-in-1 and could be considered as the gold standard.

Then came 6-in-1. This vaccine contains the basic 5-in-1 cover plus *C.sordellii* , considered by many to be the main causative agent of sudden death syndrome. There is disease in New Zealand caused by *C. haemolyticum* (red water) and *C. perfringens* type A (involved in sudden death syndrome and other fatal conditions). These diseases are less frequently diagnosed but this may well be due to the difficulty in isolating them in a laboratory.

Finally, 7-in-1. This basic 5-in-1 also covers two strains of Leptospirosis and is an option when vaccinating young cattle.

So weigh up your risks and make a choice. Young, fast-growing animals that are being pushed nutritionally will be at the greatest risk of succumbing to clostridial diseases, but they can strike at any time. Can you afford not to have some level of protection?

*Licensed under the ACVM Act, A9028 PAR Class 1

there are positive steps you can take to reduce its impact. The Healthy Hoof Programme (HHP) is a simple, stepwise approach to managing lameness on dairy farms caused by physical factors. There is no fee to register with the Healthy Hoof Programme and the resources are provided free. You will have to pay your provider for their time spent providing each stage of the HHP. To register for the HHP go to www.dairynz.co.nz.

Young stock, be they terminal or replacement animals, are your business' future (hackneyed I know, but nonetheless still true). Measuring the progress of these young animals is key to achieving goals. A keen eye is a prerequisite. However, regular weighing and measuring will often detect growth-limiting factors well before the eye does. The contents of this Vetnotes edition stress the multitude of diseases, other than "empty-gut disease" that can influence the growth of young stock. Take advantage of Totally Vets' cattle weighing service, which includes feedback from one of our experienced cattle veterinarians.

What the heck is a FECRT?

Greta Baynes

A faecal egg count reduction test (FECRT) is a way to ensure that you are spending your money wisely. There is no doubt about the production response possible from drenching a parasitised animal with an effective anthelmintic. However, when working out the annual cost of your drench, wouldn't you like to know the money you spent was the most cost-effective way to get the productivity you desire?

We can help you with a FECRT, sometimes referred to as a drench test. Different types of drench (single actives and various combinations) are tested on each farm - the type and number of drenches will be determined after discussion about your historical drench use and evaluating the responses you have had.

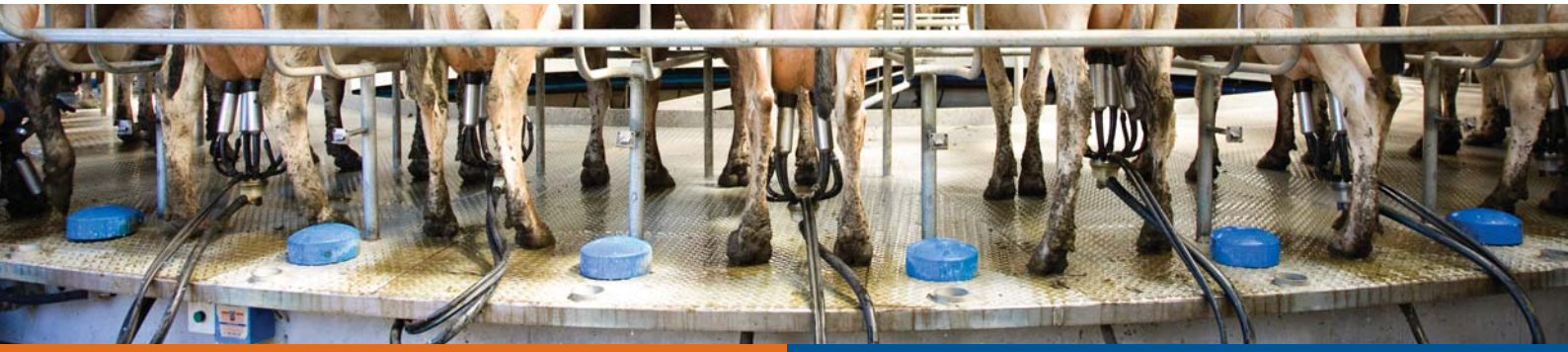
The best time to perform this test is when most worm species are present within the animals, usually summer. A small number of faecal samples are tested initially to ensure the faecal egg count (FEC), which represents the parasite burden within the animal, is significant enough for the test to begin. A small mob of animals (weaned lambs or calves) are divided into groups and allocated to a specific drench. Samples for a FEC are taken at the time of drenching and 7-10 days later to determine how much the parasite burden has decreased.

The pre- and post-drench counts are compared to determine how much the FEC has reduced. That is how effective the drench was at killing the parasites present. The different drenches are compared with each other and a control group. In groups of animals where there was less than a 95% reduction in the parasite burden, the faeces are cultured so the eggs hatch and the resistant worms are identified.

Drench resistance is an increasingly important issue on farms. Primarily the issue arises from cost of drench, labour costs of drenching and the expected production response to offset these costs. Although the susceptible worms will be removed by the drench, worms resistant to the drench will continue to parasitise these animals and limit liveweight gains. The next issue is the shedding of eggs from resistant worms onto the pasture. If there are no susceptible eggs on the pasture (from leaving some of the mob un-drenched), there is no dilution occurring and only resistant parasites will be ingested. If the same drench is used again on these animals, it will have even less effect than before.

Knowing which drenches work effectively on each worm type on your property can be used to tailor a specific drench plan for your property including types of drenches to use, timing of drenching, class of stock to drench and alternative control methods (such as leaving some animals un-drenched). These recommendations are property-specific.

If you would like more information or would like to do a FECRT to ensure effective drench use on your farm, please speak to Greta at our Feilding branch.



The great tape debate!

Ginny Dodunski

I had given up debating the need or otherwise for tapeworm control in lambs. However, I'm obviously in need of a good argument and have decided to wade into this topic again for a bit of fun!

THE WEIGHT-GAIN ARGUMENT

Based on the accumulated results of many trials, we have always told you that there is no good evidence that there is a liveweight response to removing tapeworm in lambs.

A 1986 review of world literature of 20 or more properly conducted studies concluded that there was no evidence of a production benefit from treating with any of the tapeworm-specific drugs that were available at that time.

However, the drug we use nowadays, Praziquantel, is inherently much more effective at removing tape than the older drugs. Perhaps by using Praziquantel we would be more likely to see weight-gain responses?

Again, there is little evidence for this. Only one study has been able to demonstrate a weight-gain advantage. In 1996, Ancare found a 36g/day advantage from drenching lambs with a drench with added Praziquantel compared to an ordinary worm drench. No-one has been able to reproduce this result.

Subsequent work in the Wairarapa has found tapeworm that appear to be resistant to Praziquantel. In these cases, Praziquantel was no better than white drench (which has some efficacy against tape) at removing tapeworm; only 62% of the tapeworm heads were removed. This situation could be quite widespread - we don't really know.

THE DAGS AND FLIES ARGUMENT

Conventional wisdom suggests that tapeworm infestations cause scouring, dags and an attractiveness to flies.

However, in most cases it is impossible to separate the effect of tapeworms per se from the effect of a mixed burden of intestinal worms. Where a tape drench miraculously cleaned up a mob of scouring daggy lambs, it is not possible to say whether it was the removal of the tapeworms or the removal of the other worms that had the most effect.

In studies just drenching for tape and leaving the other worms behind, the removal of tapeworms had no effect on the consistency of the faeces or dag formation.

Inside the lamb, a tapeworm attaches to the intestine by its head, but feeds by absorbing nutrients across its 'skin'. All other worms feed by physically 'grazing' on the gut lining or sucking blood. Who do you think is most likely to cause scouring?

PULPY KIDNEY?

Another piece of conventional wisdom says that heavy tapeworm burdens predispose lambs to pulpy kidney deaths. Being an unprotected, fast-growing lamb on high-quality feed is the biggest risk factor for such deaths. This suggests tapeworms aren't knocking growth rates too much! For many other reasons, it is good practice to have a sound 5-in-1 vaccination programme in place, so approach pulpy kidney control from this angle!

What's the goss?

The Totally Vets production animal team wishes you all a very Merry Christmas. 2009 has not been a particularly easy year for many of us and it is with heartfelt sincerity that we all plan for a happy and much more prosperous 2010.

Please drop into either the Feilding or Palmerston North practices on Friday, December 11th anytime from midday until some time later. Totally Vets will feed you, rehydrate you and hopefully amuse you too! We're really looking forward to catching up with you at the Christmas BBQ. Join us for a bit of festive season conviviality!

Corrina's safari to South Africa has come to an end and no doubt she has numerous tales to recount. Why not share her adventure at the BBQ? Especially ask her about her embarrassing experience with "silent" airports where they do not announce flight departures.

The Totally Vets-sponsored 1400 metre race at The Feilding Jockey Club race meeting on Saturday, October 1st was taken out by the locally trained Rumour Has It. The big race of the day, the Stockguard Feilding Gold Cup was won by another locally trained horse, Fazza. Our congratulations to the winners and thanks to Stockguard, a New Zealand-owned veterinary pharmaceutical company. Stockguard's generous support allowed Totally Vets to entertain a number of clients at the races. Winners of prizes provided by Stockguard were Nicola Cudby, Rob Crothers, Chris Russell, Ross Edwards, Shirley Nicol and Lesley Ebbitt.

It must be something to do with increasing family numbers because both Kirk and Tracey and Barny and Alison are moving or about to move into new nests. They say shifting house is next to marriage and divorce on the stress barometer so we'll all just have to be a bit forgiving if the "shifters" seem a bit out of sorts.

Below (L-R) Rachel, Charmaine, Greta, Julie, Paula, Kayla, Nigel, Lucy, Jackie, Jenny, Rebekah and Gaye.

Farm dog nutrition - getting the most out of your right-hand man

Paula O'Reilly

New Zealand farmers are a unique bunch - they are lauded the world over for their ingenuity and lateral thinking skills. They are also envied the world over for an asset that is an invaluable resource, especially on our rugged hill-country - the working dog.

These dogs go where no machinery can, where man and horse are often unable to reach, for hundreds of kilometres over rough ground and then do it all again tomorrow! When you take into account the salary you would pay a human worker for the equivalent hours and effort put in, these dogs should be dining at the Ritz! Jokes aside, it is important to be aware that what you get out of a working dog is often directly related to what goes in.

Dogs, like humans, evolved as omnivores, so they are designed to eat a diet incorporating both animal and plant protein, energy, vitamins and minerals. That said, not all protein and energy sources are created equal. How much to feed depends on the dog's size and activity level and the quality of the food. It is very important to read the label. A product may not claim to be 'complete and balanced' unless it has been tested in feeding trials.

Many of the cheaper dog biscuits are based on cereal by-products. These do not provide dogs with adequate energy as their intestinal system is unable to digest many of these by-products, so a large proportion is excreted as faeces. They are also often based on "meat and bone meal", which can be a very poorly digestible protein and vitamin source.

The maintenance energy requirement for a non-working dog is 60 kilocalories of energy per kilogramme bodyweight per day. For an average 20kg heading type dog, this equates to 1200kcal/day. This can easily be supplied by many foods; for example this would work out to 400g of standard Tux biscuits.

However, a dog in hill-country work needs two to three times this amount, i.e. 120-180kcal/kg, or 3600kcal for our average heading dog. If this dog was still fed standard Tux biscuits, it would need 1.2kg of biscuits per day to meet its energy requirements!

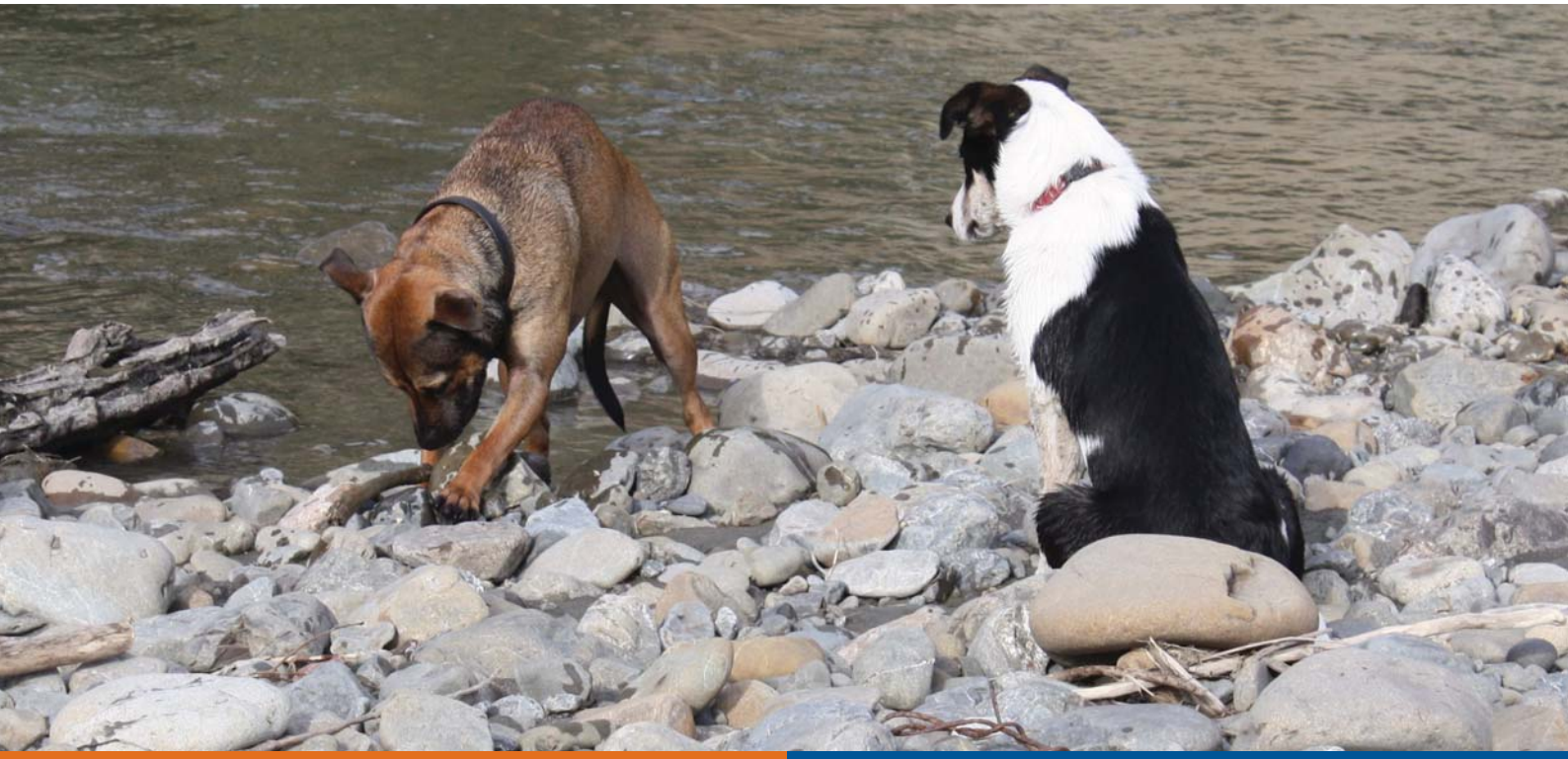
As a rule, adult dogs should be fed twice a day and not directly prior to work, as work on a full belly may predispose some dogs to a twisted stomach (see Vetnotes August 2009). If a dog is only fed once a day, it must be fed a diet of sufficient quality to get all its requirements in one meal - 1.2kg of dry biscuits can be a bit hard to stomach in one sitting!

So, taking all of this into account, an ideal dog food is high in protein and energy, balanced in terms of vitamins and minerals, convenient to feed, easily digestible and cheap! This is where the premium diets come into their own. While the price per bag may seem much more than the lower grade brands, their economy becomes apparent when you calculate the amount actually required to feed a dog.

Owing to their dense concentration of highly digestible proteins and fats, the volume required to sustain an adult animal is surprisingly small, and therefore the number of feeds per bag is a lot more than poorer quality brands.

Within the premium brands, there are product differences too, and more energy-rich diets are available for those extra-hard working dogs that run all day and can't seem to keep any weight on.

If you have any questions about the nutrition of your working dog, or would like help ensuring your team is getting a balanced diet, please feel free to contact the staff at the Feilding branch of Totally Vets.



Feeding summer brassica crops to dairy cattle

Anita Renes

Brassica crops are fed to dairy cattle as a supplement to summer pastures. Brassicas are a cost-effective feed source and can be useful as part of a re-grassing policy by helping to break pasture pest and disease cycles.

Turnips, hybrids and forage rape are commonly used to fill the summer feed deficit and maintain milk production. They can also be a valuable feed source for heifer replacements and autumn-calving dry cows.

Poor performance on brassicas is most commonly due to under-estimation of crop yield and/or over-estimation of utilisation. There are a number of diseases that can occur while on crops. Most problems occur within 10-14 days of introduction. Cattle can take up to 28 days to fully adapt to a brassica diet, partly due to time needed for the rumen microbes to adapt and partly for the animals to get used to eating a new feed if they have not had brassicas previously.

Nitrate poisoning, rumenal acidosis, bloat, photosensitisation, red water (SMCO poisoning), choke, polioencephalomalacia (PEM), diarrhoea and copper and selenium deficiency are all potential diseases that can occur in brassica-fed cattle.

The following brassica feeding management tips reduce the risk of disease:

1. Double-fence breaks and maintain adequate voltage on fences to prevent breakouts.
2. Introduce animals to crops gradually.
3. Offer cattle hay, silage or pasture before they are given their new crop break. There may be slightly more crop wastage but the risk of disease will be reduced as toxins such as nitrate and SMCO are diluted out.
4. Milking cows are often put onto brassicas after the morning milking. Cows should be allowed onto the crop simultaneously, preventing dominant cows from reaching the crop first and gorging.
5. Test crop nitrate levels prior to feeding.
6. Accurately assess the dry matter yield of the crop before it is fed. Overfeeding increases the risk of acidosis, bloat, PEM and red water as leaf is selected over stem by dominant cattle. Underfeeding causes condition loss and reduced milk production and increases the likelihood of breakouts.
7. Graze the crop at the optimal stage of maturity for the species/cultivar. The risk of SMCO and nitrate poisoning increases in over-mature crops. SMCO levels in kale are approximately double that of other brassica crops. Feeding immature rape can cause photosensitisation ('rape scald'). Most cases of photosensitisation in New Zealand are seen on summer turnips, especially if they are under drought stress.
8. Take extra care with crops that have had high levels of nitrogen and/or sulphur fertiliser applied. This can increase the risk of PEM, nitrate or SMCO poisoning.
9. Milk taint can occur on brassicas. Limiting the brassica intake to a third of the diet on a dry matter basis and allowing access to the crop after the morning milking are standard practices to help prevent taint.

BVD has many faces

Paul Wiseman

A call to a mob of calves that were failing to thrive was instigated when 7.5% of weaned calves had died, having been weaned in reasonable condition.

The calves were treated for worms shortly after weaning at the first signs of ill-thrift. Milk was re-introduced and meal added to the ration. Calves continued to fade and to die daily.

A post-mortem on a calf near to death revealed a severe gastro-enteritis. Laboratory tests identified Yersinia as the cause of the gastro-enteritis. Before the lab tests were processed, the calves were treated again for worms. However, lab results showed a low worm burden.

This herd was identified in the Bovine Virus Diarrhoea (BVD) survey conducted by Totally Vets last year as being a BVD-infected herd. There was also a history of difficulties growing weaners in previous years.

BVD virus has the effect of lowering the immunity of infected animals and increasing their risk of acquiring other diseases. Superinfection with Yersinia is a common outcome in calves with immune suppression due to BVD infection. Yersinia is frequently isolated from normal healthy calves.

Weaner dairy heifer health

Anita Renes

Your calves have survived to weaning. Surely nothing can get them now? Wrong! The following diseases are all relatively common in weaners and at the very least will affect their growth and development. As with all diseases, the earlier they are detected, the less damage is done.

COCCIDIOSIS

Coccidia are protozoan parasites that damage the lining of the gut, causing straining and scours. Immunity develops with age. Many calf meals contain a coccidiostat that controls coccidia numbers, allowing immunity to develop without disease. The stress of weaning can precipitate an outbreak. Faecal samples can be tested to confirm the diagnosis. Treatments are available. Calf feed containing a coccidiostat should be fed for at least a month after weaning.

INTERNAL PARASITES

Gastrointestinal worms are the most common cause of slow weight gain and ill-thrift in young stock. The optimal parasite management plan will vary between farms. Most calves will need regular drenching from weaning until approximately 15 months of age with a combination oral or pour-on drench. Regular faecal egg counts can determine the need for drenching and reduce overall drench use.

The same paddocks on dairy farms are often grazed by calves year after year allowing worm numbers to accumulate. Grazing these paddocks with other stock classes will help reduce the worm burden. Drench resistance is present on many dairy properties. Carrying out a faecal egg count reduction test is a good way of assessing what drench families will be most effective on your farm. (See Greta's article on page three).

CLOSTRIDIAL DISEASE

Clostridial diseases such as tetanus and blackleg are often fatal. Effective vaccines are available for these diseases (see Barny's article on page two). Routine vaccination of all calves from three months of age is recommended.

BOVINE VIRAL DIARRHOEA VIRUS

Bovine Viral Diarrhoea Virus (BVDv) causes scours and ill-thrift similar to parasites. BVD calves may also have ulcers in the lips and mouth. BVD virus suppresses the immune system, making calves more susceptible to other diseases such as pneumonia and yersiniosis. Testing last year by Totally Vets showed a high incidence of BVD in our region. Outbreaks of BVD in weaners can be a recurrent problem on some properties with devastating effects. Very good tests and vaccines are now available.

POLIOENCEPHALOMALACIA

Polioencephalomalacia (PEM), also known as vitamin B1 or thiamine deficiency, most commonly occurs in weaners and presents with signs of blindness, incoordination and if untreated, seizures and death. Vitamin B1 is produced by bacteria in the rumen and in PEM, the process is disrupted. PEM has been linked to sudden changes in diet and high sulphur levels in the feed, but most of the time the cause is not known. Most cases occur over the late spring/early summer period. Call Totally Vets immediately if you suspect a calf has PEM. Most animals will recover if they are treated early.

RYEGRASS STAGGERS

Ryegrass staggers occur over the summer period and are caused by a fungal toxin (Iolitrem B) present in ryegrass seed heads. The condition can look similar to PEM with cattle showing tremors and a staggery gait, especially when disturbed. However, at rest the calves are completely normal other than perhaps a slight head tremor. Often a large proportion of the mob will be affected.

FACIAL ECZEMA

Facial eczema (FE) can have devastating effects on mobs of calves. Don't forget this group in your FE prevention plan.

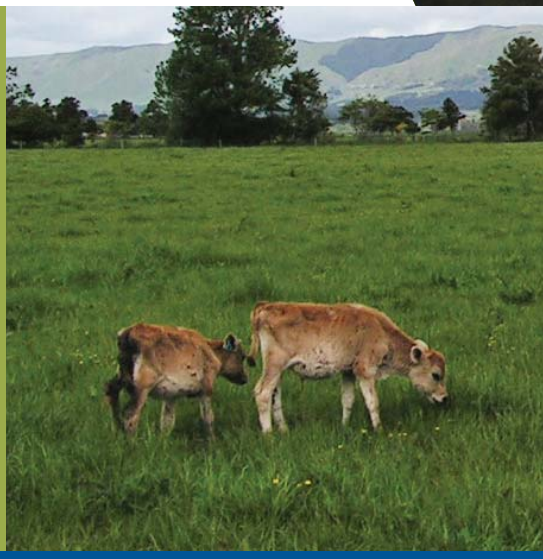
Other conditions that can affect weaners include pinkeye, footrot, pneumonia, yersiniosis, Salmonella, bloat, lice and IBR (catarrh).

Most of the diseases that occur in weaned cattle will be prevented by feeding for rumen development pre-weaning, achieving optimal weaning weights, reducing stress at weaning time, good post-weaning nutrition to achieve target weights and the timely input of vaccinations and drenches.

Treatment for yersiniosis saw a rapid turn-around in these calves. Over a six to eight week period, the calves will overcome the BVD virus as they develop their own immunity. In the meantime, the weaners have taken a huge check in growth. This effect will carry right through to their introduction to the milking herd in two years' time.

BVD can be a complex issue and the ability to mitigate risk is governed by individual farm practices. Logistically and economically it is going to be a major task to rid this herd of BVD. But it is not impossible.

The moral of this story is that worms are not the only cause of ill-thrift. BVD virus can be a primary cause of ill-thrift, as well as predisposing animals to superinfections with other pathogens, seen as diarrhoea or pneumonia.



Right BVD virus carrier on left is 4 months older than calf on right!

TOTALLY VETS
ANIMAL CARE & EXPERTISE

Advance notice of deer farmer seminar

Totally Vets will be hosting a seminar

WHERE
Dave Blenkiron's property
28 Hanlon Rd, Ashhurst

WHEN
Wednesday 24th February, 2010 (afternoon)

Further details on topics and times will come to you in the February Vetnotes