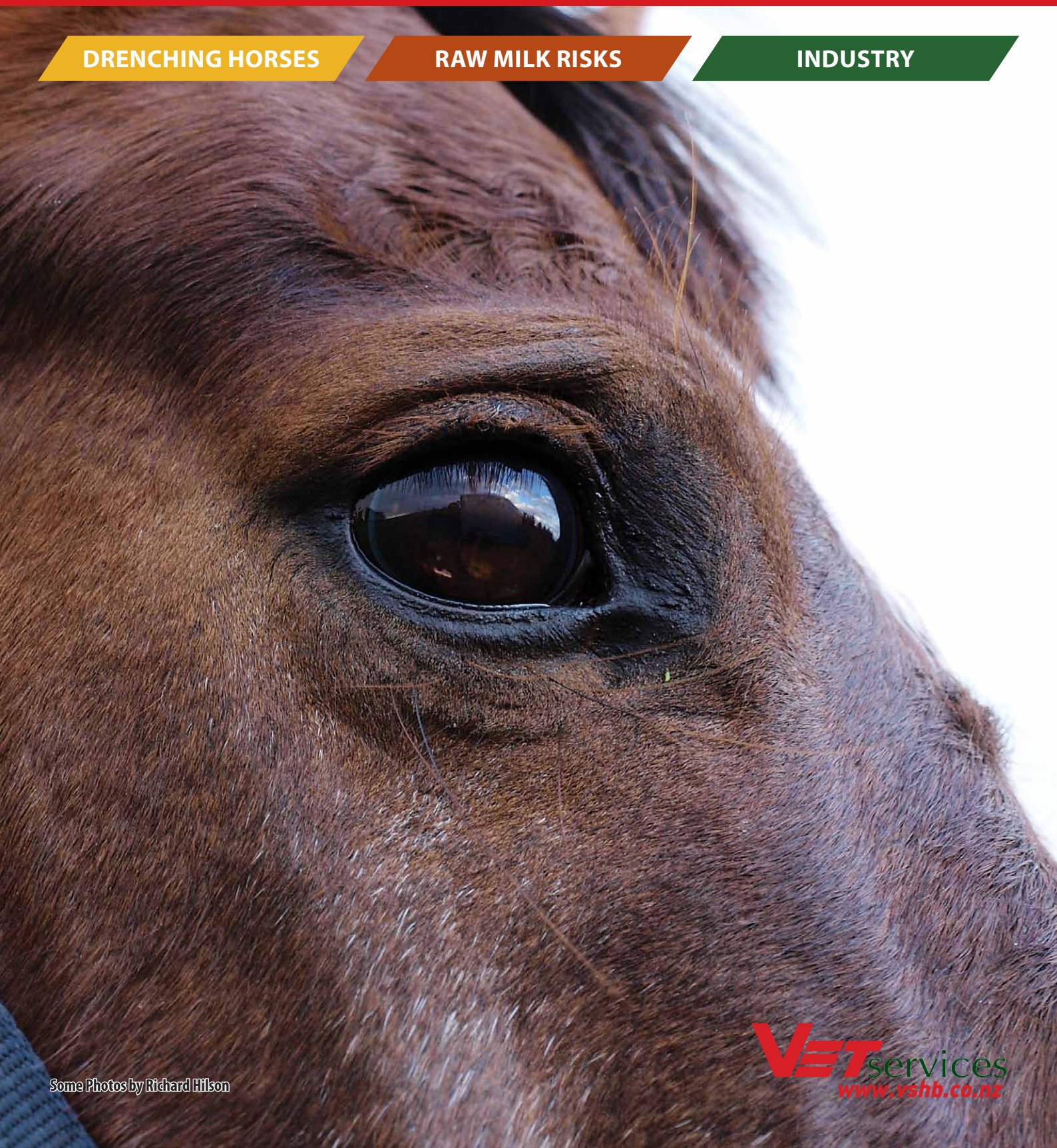
JULY 2017

VET NEWS

DRENCHING HORSES

RAW MILK RISKS

INDUSTRY



Some Photos by Richard Hilson

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RAW MILK – UNDERSTANDING THE RISKS

MIKE CATLEY

Milk straight from the vat has many advantages for some people. It can be much more flavoursome and creamy and as a consumer you can know exactly where your milk is coming from, not just which factory. There are some benefits as well, including higher nutritional value, reduced problems for lactose intolerant people, pasteurisation destroying beneficial microbes and enzymes and it helps to improve the immune system, eczema signs and allergies.

But, why do we pasteurise? Louis Pasteur made a breakthrough discovery over 150 years ago by heating beer and wine to destroy spoilage and pathogen associated microbes. This prolonged the shelf life of the beer and wine and made it safer to drink. Pasteurisation is simply the heating of food or drink to a designated temperature over time to kill microbes, mainly bacteria. For example, heating milk to 63°C would require 30 minutes at this temperature, whereas ultra-heat treated (UHT) milk at 140°C requires 4 seconds. The main organisms include Salmonella, Listeria, E. coli (STEC) and Campylobacter – all of which can be life threatening.

The Ministry for Primary Industries (MPI) performed an in depth review on the research into raw milk to shed some light on the risks and claims raw milk advocates are marketing.

- Risk – from 2009 to 2015 there were 41 outbreaks where raw milk was a risk factor
  - 90% involved children aged 1 to 16 years old
  - 24 were caused by campylobacter and 4 by STEC
  - Currently, ~3% of the urban NZ population consumes raw milk; how many more outbreaks would be seen if raw milk consumption was common practice?
- Pasteurisation of milk has no impact on the nutritional profile when compared to raw milk
- There is no significant association between lactose tolerance and raw milk consumption
- Pasteurisation does affect levels of microbes in milk, both beneficial and harmful, but those that are beneficial are not in great enough quantities to provide health benefits from raw milk
- This also applies to enzymes and antibodies in milk
- While several studies have shown that early life farm exposure may reduce the risk for developing atopy, allergies or asthma, they do not show any causal effect relationships and the evidence is not strong enough to recommend raw milk as a preventative measure.

An argument against the risks could be that they are associations, not cause and effect but the analysis of outbreaks shows that there is strong or very strong evidence that raw milk was the culprit.

WHO ARE HIGH RISK GROUPS?

- Young children and babies
- Elderly
- Pregnant woman
- Immune-suppressed people
- Those that do not have early life exposure to raw milk

HOW DO WE MAKE RAW MILK SAFER TO DRINK?

- Keep it chilled while transporting it
- Keep the milk in the coldest part of the fridge (ideally below 4°C)
- Throw out the milk if it has been left out for longer than 2 hours
- Boil your milk before drinking it
- Drink it before its use-by-date
- Make sure you let guests know that they are being served raw milk
- Buy only from a registered supplier

RAINFAST BOSS POUR-ON – NOTHING ELSE IS RAIN FAST

ARRON SCOBLE

You have just put pour-on on your cattle and now it has started to rain…

You would be surprised at how often we get calls describing this scenario. The first question we are asked is "will this affect the efficacy of the pour-on I have just applied?" The other question "it has been raining, can I treat the cows while they are wet?"

Fortunately most pour-ons are now either rain-resistant or give reasonable detail on their labels to indicate what conditions under which they can be applied. The big gap in our pour-on armoury is that there has been no rain-resistant combination pour-on available. Thankfully a local company, Alleva Animal Health has a combination pour-on product called BOSS Pour-on. Containing a combination of abamectin and levamisole, BOSS is applied at the rate of 1ml per 20kgs. What distinguishes BOSS is that it also contains a unique blend of materials which prevent run-off and enhance absorption. BOSS can be used on wet animals and rainfall shortly after application has no effect on efficacy. This is the only combination pour-on that can be used under these circumstances.

The rain resistance study has recently been repeated with a higher rate of rain fall (12.5ml in 14 minutes) and achieved the same results as the registration study (12.5ml in 26 minutes) with efficacy levels >98%.

This study demonstrated that rain did not reduce efficacy.

Boss Pour-On is a premier choice for treatment of young cattle. Clinical studies performed in New Zealand demonstrate that the product is highly effective against the common parasite species present on all New Zealand farms. Efficacy levels of 100% against all species were obtained in the total worm count studies undertaken with this product. This product is also effective in the endectocide resistant Cooperia species and species resistant to the benzimidazole drenches. Boss Pour-On is highly effective in the control of biting and sucking lice and lungworm.

For more details contact any of the retail team or discuss with the vets.

DRENCHING HORSES

DAVE KRUGER

Some horse owners continue to drench their animals on a six to eight weekly basis regardless of age or worm burden. This was a traditional approach which is outdated and possibly detrimental in terms of developing resistance to drenches.

The main internal parasites we see in horses in New Zealand include the following:

Large roundworm (Parascaris equorum) is aptly named and can grow up to around forty centimeters in length. This worm is of major concern in young foals and if present in large enough numbers may lead to intestinal obstruction and perforation. Its life cycle includes migration though the liver and lungs and can cause widespread health consequences, with affected foals appearing stunted and listless.

Large strongyles including Strongylus vulgaris are amongst the more dangerous of the equine roundworms. These parasites can cause colic, anaemia, diarrhoea and weight loss. They have a complex life cycle including a larval stage which migrates in the walls of the major abdominal arteries. This can lead to weakening of the vessel wall with resultant aneurisms or blood clots. This may lead to severe and sometimes fatal colic, even later in life. Whilst large strongyles are uncommon nowadays, we still see occasional and sometimes fatal cases.

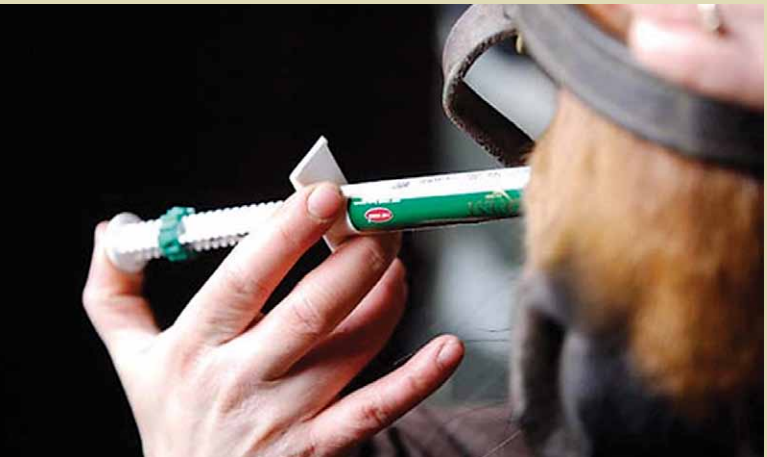
Small strongyles include a number of species, the main ones being the Cyathostome group. These are very small parasites which may be present in large numbers. They live in the large intestine and can cause diarrhoea, weight loss, colic and anorexia. This parasite also has the ability to wall off immature stages in the intestinal lining over winter or if large numbers of adults are already present in the gut. Large numbers of these worms can emerge simultaneously in spring, pre-foaling or if the horse is stressed. This leads to associated health issues as well as potential massive pasture contamination.

Pinworm (Oxyuris equi) is not a serious threat to horses, but can cause severe irritation of the perineal area, resulting in rubbed tails and self-trauma to the dock and rump. This is the white tapered worm horse owners may see in the manure. The adult females lay their eggs on the perianal skin and then die. Although very little trial work has been done on this parasite anecdotal reports and our own observations would suggest that they might have developed resistance to ivermectin and related drenches.

Tapeworm (Anoplocephala) has a complex life cycle involving a stage in pasture mites. The adult tapeworms may lead to intestinal irritation in young horses and have been implicated in colic caused by intussusception (telescoping of the bowel into itself).

Worm control encompasses various strategies including the use of drench to kill worms present in the animal and various methods of controlling larvae on the pasture.

Epidemiological work done at Massey University studying the worm burden in adult horses has revealed some interesting findings. When faecal egg counts were done on a group of mares most of them had very low or zero egg counts, suggesting a good immune response to parasites in these animals. A few however had consistently high counts and consequently contributed the bulk of egg contamination of the pasture. The take-home message is that there is little if any point in treating the zero egg count horses with anthelminthics whilst the high egg producing mares definitely required regular treatment.
In this particular study ninety percent of the eggs were being produced by ten percent of the mares! By only treating the mares that needed it, huge savings can be made, whilst also providing a low level of egg production without adverse effect on these mares. The theory behind allowing a low level of pasture contamination to continue from untreated animals is that any worms surviving the drench in treated mares (resistant worms) would be likely to breed with non-resistant worms, delaying the onset of widespread drug resistance. This is known as "Refugia" and is the favorite catch-word among parasitologists at present.



It is important to differentiate between young horses and adults. As described above, most adults have an intrinsic ability to mount an effective immune response to internal parasites, suppressing the number in the gut and the number of eggs these produce. Youngsters have yet to develop this ability and are hence far more susceptible to the adverse effects of worms. In terms of drench interval, each property is unique, but generally young horses should be regularly treated with an effective drench.
Faecal egg counts should be done on ALL adult horses once or twice annually, and only those showing significant egg counts treated. On most properties this will mean a far lower number of treatments than is currently used.

In terms of which anthelminthic to use, in general terms a combination drench containing both an ivermectin family and white drench family is better than using single actives. This may also contain praziquantal for tapeworms. A drench test can be done by performing a faecal egg count prior to drenching and identifying horses with significant egg levels, then repeating ten days later. The post-drench sample should have zero eggs – if any are present this suggests survival of resistant adult worms and a larval culture can be performed to identify the species involved.

Control of the infective worm larva on pasture is an integral part of effective parasite management. This is best achieved by removal of manure on a regular basis. Where this is not practical cross-grazing with sheep or cattle works well. The worm species of concern are all highly host specific so use of ruminants as "vacuum cleaners" is effective. In our climate harrowing only spreads the eggs and infective larvae over a larger area of pasture – probably increasing the chances of ingestion by horses. Harrowing prior to cross grazing is thus recommended.

We now have an equine faecal egg counting service available. Packs can be collected from any of our clinics. The cost per horse is $15. As mentioned in the article above, identifying which horses actually require drenching will not only save on anthelminthics but increase "Refugia" on your property.

NOTE: All drenches, especially the "ML" family, including abamectin, moxidectin and ivermectin are potentially extremely toxic to dogs. The biggest risk of access to these drugs is where dogs chew used or partially used tubes of drench. Please ensure that these are stored and disposed of safely. If using the liquid multi-dose packs ensure no spillage occurs which could be ingested by inquisitive dogs.

Feel free to talk to one of our equine vets if you require more information.

THE INDUSTRY IS AT WORK ON YOUR BEHALF TOO

RICHARD HILSON

This is a slightly different angle on our production animal newsletter articles but one worth telling as it reflects wider animal health industry activity that you may not always be aware of.

There has been an elephant in the room for dairy vets for several years, a big one about combination mastitis treatments for dairy cows and the resulting milk with hold period. Most products that you will use to treat food producing animals will have a withholding period (WHP)- that is the time that it will take for the product to be deemed safe for human consumption again once treatment is finished. These are regulatory requirements and something that we all must adhere to responsibly.

Deriving a WHP is a costly and time consuming process, performed on healthy animals and to a very high global standard. Animals will be treated with a full course of product and then sampled at regular intervals to decide the minimum residual level and the WHP. This data is what we use to specify the WHP for animals under our care.

However, MPI, through an operational code with the innocuous title "NZCP1", have required that "where multiple medicines are prescribed to treat the same condition at the same time, written advice must be obtained from the prescribing veterinarian for the milk withholding time to be observed. In the absence of written advice, a 35 day milk withholding time applies." This is the elephant! The longer five week WHP is potentially very costly to the producer in terms of discarded milk (when "normal" WHP for single products are measured in days rather than weeks or months) yet the prescribing vet did not have the information to be sure that the combination treatment did not adversely affect the product WHP.

To cut a long story short, one of our noted NZ-based animal health companies, AgriHealth, decided to undertake a comprehensive study to create the information that the industry desperately needed. AgriHealth produce a raft of products that are important in our dairy scene and which many dairy farmers will be well aware of- DIB-Vs, Tylofen, Lincocin Forte, Ketomax and Meloxivet to name just a few. Committing $100,000 to the study, they tested twenty likely combinations that we might expect to use in treating cows with mastitis. This is no small undertaking- not only are there a huge range of potential products but there are a plethora of combinations. To their credit, AgriHealth also chose to incorporate many of their competitors products in the study, widening the scope of the results.

The results have only just been released and to the relief of supply companies, vets and farmers everywhere, for the combinations of antibiotics and anti-inflammatory tested there is no apparent effect on the withholding period. Vet Services Hawkes Bay believe that based on this evidence farmers will be safe to use the the longest milk withholding period for products used in combination. Somewhat paradoxically, something as desperately needed as a body of work like this is likely to be consigned to the annals of history quite soon- we will all accept the outcomes and will not need to refer to it again in the medium term.

The key message is that there is often a lot of work going on behind the scenes when these big elephants wander into the room. Even though we can all see them (and someone knows that they put the bloody thing in the room in the first place!), the elephant may not be easy to get out of the room again. For AgriHealth to spend $100,000 getting this elephant out before it caused a stampede was truly noteworthy.

WELFARE –A RAPIDLY CHANGING SPACE ON FARM

CAROLINE ROBERTSON

Whilst there are significant challenges on farm with water quality and nutrient management the less obvious challenge is the changing face of animal welfare.

Society is changing the way they view an animal's place - the "barn to bed" phenomenon. People are increasingly thinking about animal care, whether it is responsible pet ownership, the need to grow and protect native animal biodiversity, or the care of animals on farm. This change is happening rapidly and can be seen in growing lifestyle choice trends such as vegan, vegetarian, organic and a move towards "ethically sourced" food. Note the recent Amazon takeover of the grocery chain "Whole Foods" in America whose point of difference is exactly that.

As a New Zealand farmer our future has to lie in providing high value protein to high end global consumers as cheap protein will be increasingly produced from algae, crickets and 3D printers, note the impossible burger!

These same high end consumers are demanding that animals have a "good life" on farm even when we are going to eat them, and increasingly want to know the provenance story of the food they are eating.

NZ regulations are responding. The new regulations for bobby calves will be fully in place by 1st August, prohibiting killing of calves by blunt force trauma, specifying minimum ages and fitness for transport, minimum feeding requirements, maximum duration of transport, no Cook Strait transits, short time to slaughter from arrival at premises, increased requirements for loading and unloading facilities and the need to provide adequate shelter before and during transport and at points of sale and slaughter.

New regulations are also coming into place requiring the use of local anaesthetic to disbud calves.

Other common farm practices will also come under the spotlight in the future. As farmers we have to look with fresh eyes at what may have been acceptable practices in the past and view them with the eye of an urban consumer who may never have been on a farm e.g. docking, lameness management, lamb mortality, the timely management /treatment of individual sick animals, or the optimum management of animals in intensive farming systems so they also have a " good life".

The provision of shade and shelter is an important step for us all towards future proofing our industry. There is no quick fix and certainly no easy solution re lambing shelter, but there is a saying that although the best time to plant a tree was 20 years ago, the next best time is today.

What is acceptable and where this is heading is a rapidly changing page and it will be determined more by consumer demand and market access requirements than by those of us on farm or in the industry. But at the end of the day I am sure we all agree that painful procedures hurt and we should be able to manage this better in this day and age. It is in all of our best interests to have healthy and happy animals as not only will they be more productive and profitable, it is far more enjoyable and rewarding farming them.

SEASONAL UPDATE

HASTINGS/NAPIER

CLARE RYAN

MUD! MUD! MUD! May has been pretty wet but thankfully not too cold. Hopefully by the time this reaches you, it has dried out a bit.

With all the wet we have seen a few cases of sudden death in trade lambs from Leptospirosis. Lepto is associated with colder weather, water puddles and mixing of stock groups. Remember post mortems are a very valuable tool in fighting disease so any unexplained death get in touch.

The wet has also brought out lots of foot abscesses in horses and the flush spring-like growth has caused a few colics.

All the dairy cows are dry and hopefully putting on body condition to be in top condition for calving. There is a NZ wide shortage of magnesium oxide, so come and see us for other options for prevention of grass staggers.

Sheep scanning has been going well with some really good results in the MA ewes. Ewes are in good condition and we are starting to get a few bearings so be prepared!

With the end of June, we said goodbye to Camille sending her to the dark side (yes, Waipukurau clinic) and welcome our new vet Joao Dib from the Manawatu in time for spring.

WAIPUKURAU

HARRY WHITESIDE

What an autumn it's been with much growth still occurring in the early part of winter. There's still plenty of feed available from coast to foothills but no denying that pastures have taken on that look of being not quite so green and no doubt of diminishing ME. That said, there are some incredible stands of brassicas up and down the district and despite high water tables the mud isn't building up on scanning crates as much as it was in early June. There have been some surprisingly high empty rates amongst the ewes (north of 5%) mainly in 2-tooths but as expected plenty of multiples are being seen with one result of 248% being recorded!!

Deer scanning too has been very good and animals look to be in fantastic condition.

Worms amongst mature animals have not been as big an issue as they were in the autumn but winter worm (trichostrongylus) will be out and about nonetheless!

On the downside, the wet brought with it several outbreaks of leptospirosis in trade lambs and we have also been investigating a number of cattle abortions that are an unfortunate and unwanted feature of late pregnancy.

Keep a sharp eye out for metabolic disorders and bearings these next few weeks and all the very best going into the busy lambing and calving season.

DANNEVIRKE

SIMON MARSHALL

Just recently we have seen some great weather compared to late autumn when all it seemed to do was rain! In general the stock condition we are seeing currently is very good but we have seen some younger stock that have potentially been affected by the late autumn parasite challenge that we anticipate every year but this seemed to be worse than most years. Unfortunately we have uncovered some drench resistance on some properties which has highlighted the need to carry out drench reduction tests and use Wormwise principles when managing parasites on farms.

During the winter ewes will be being scanned, cows will be being fed on crop and horses will be turned out. If there are any issues with any class of stock or any key production indicators over this period please contact us to provide any advice or help that could help your farm business.

The Lions tour is underway and by the time you receive this at least the first test will have been played. Hopefully the All Blacks have been able to achieve the results that the Blues and Highlanders got and that we continue to enjoy great victories by the AB's in all three tests. We look forward to seeing you in the new lambing and calving season which is only just around the corner.

WAIRARAPA

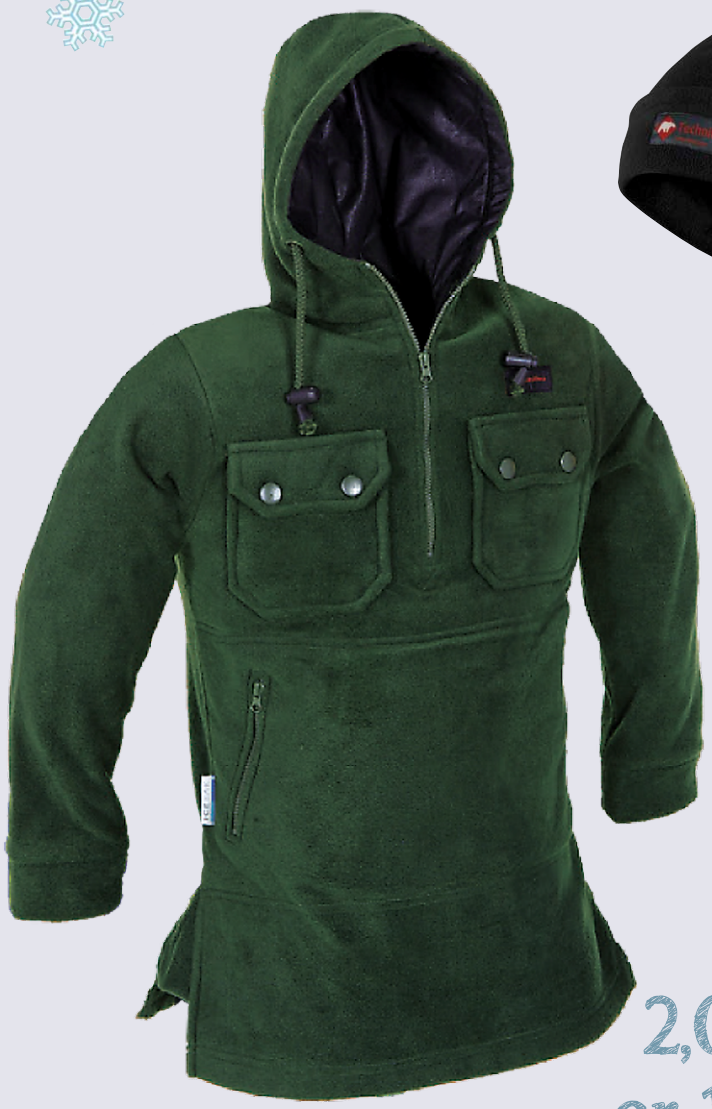
STUART BRUERE

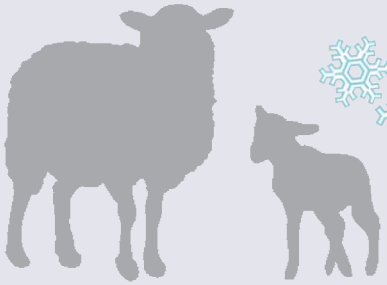
Ewe scanning is done, the Islands look good for a mid-winter holiday and we hope the winter storms from Antarctica are not too severe close to and over lambing. Mid-winter is a good time of the year to tidy up the docking gear, repair broken gate latches and get machinery maintenance done. "Thinking time" in your business and personal life is also important. Key questions to address are 1. Are you happy with your farm performance? 2. Are you clear about your business objectives or in the modern vernacular are you meeting your KPI's 3. You have a plan A but if things don't go to this plan have you got a plan B? 4. If your budget is looking a bit out of kilter, have you spoken to your bank manager? Bank managers don't like surprises! 5. How's your health - Physical and mental? 6. Have you been to the doctor for a routine medical check recently? 7. How's your "significant other"? 8. Have you planned a holiday with your "significant other"? 9. Are you keeping up with what your family are up to? You will notice the list of questions is biased towards your personal and family wellbeing - it's very easy in any business to get overly engrossed in the day to day business challenges and forget about your own health and the lives of those nearest to you. I've yet to hear a person with a terminal illness say "I wish I had worked harder in my business", but I sure have heard them say "I wish I had spent more time with my wife and kids". The end of winter can be tough, but just remember to keep life in perspective.

OUR VET TEAM

Napier & Hastings:	**Clare Ryan, Dave Kruger, Dave Warburton, Helen Crawford, Helen Taylor, Ian Leadbetter, Joao Dib, Mark Matthews, Neil Stuttle, Rachel Griffiths, Richard McKenzie, Roger McKinley, Sharné Crous, Stuart Badger, Veronika Pipe and Vicki Gilchrist.**
Waipukurau:	**Annelise Enslin, Anyika Scotland, Camille Flack, Caroline Robertson, Geert Gelling, Harry Whiteside, Kathryn Sigvertsen, Lucy Dowsett, Mike Fitzgerald and Richard Hilson.**
Dannevirke:	**Corinna Minko, Ingrid Meijer, Johnny Atkins, Kate Matthews, Simon Marshall and Tim Hogan.**
Masterton:	**Elke Blommers, Jacques Van Zyl, Louisa Broughton, Nicola Haglund, Sandy Redden, Sara Sutherland, Sarah Wolland and Stuart Bruere.**

ULTRAVAC & COVEXIN WINTER WARMER





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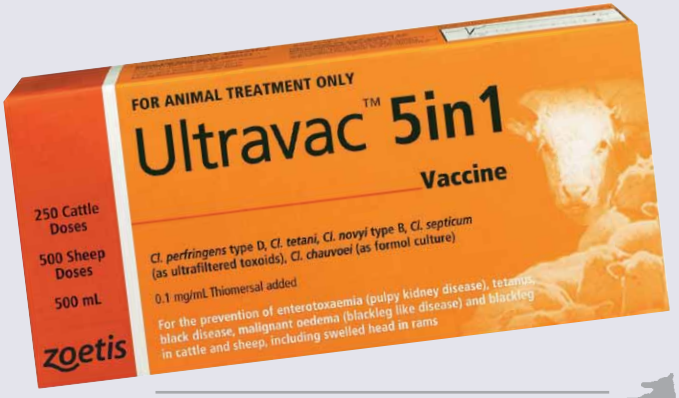

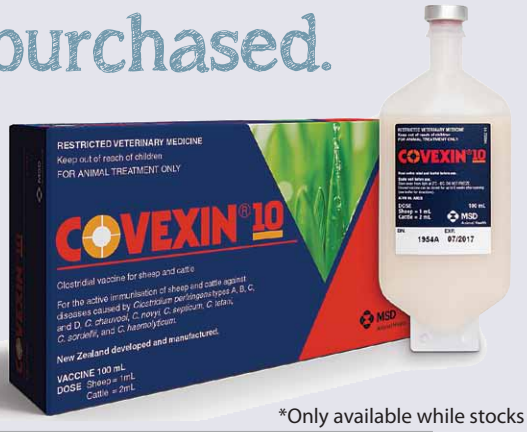

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