

CLEVER VACCINES?

Vaccines have made a difference to human and animal health the world over. An example of a very successful vaccine programme has been the eradication of small pox as a threat to humans.

In our world, that of vets, pets and production animals, vaccines are now a part of nearly everyday life. So much so that we probably take some of what they can do for granted. Witness the devastation of the arrival of distemper in the NZ dog population-whole teams of farm dogs died. Tetanus is a terrible disease but we can now easily prevent your horse being affected. We have access to world-leading sheep vaccines to prevent abortion in ewes and other several contagious diseases of sheep. The list is long...

Sometimes vaccines can be a bit of a nuisance though as we cannot differentiate animals which have been vaccinated from those which have had contact with the disease causing agent itself. Animals will mount an immune response to a vaccine or a virus or bacteria in pretty much the same way- they recognise that the agent is not part of their own body and they mount a response to avoid disease. Part of that process will produce antibodies to fight the virus or bacteria (or components of the vaccine) and these antibodies are what we frequently measure when testing for exposure to infectious agents.

Things get a little complicated sometimes. IBR (infectious bovine rhinotracheitis) isn't a really big deal in NZ but can cause respiratory issues, venereal disease, enteritis and conjunctivitis in cattle. Actually, that may sound like it is a big deal, when you look at that list! However, clinical manifestations are not common or easy to measure- but are way worse in some foreign countries. Where things have got a wee bit complicated is with live animal exports as most export protocols require cattle to be tested for IBR and only animals that test negative may be exported. In

the past this has meant that significant numbers of heifers in particular could not enter an export programme as they had been exposed to IBR virus. The antibody tests used could not differentiate animals that had been naturally exposed to the virus from those that had been had been vaccinated. So we could not vaccinate the heifers as that created a whole mob that tested "positive" (and could not be exported) but not vaccinating meant the whole mob was at risk of infection (and would not be able to be exported if IBR took hold in the group). Truly a catch 22.

Enter "Clever". Biobos IBR Marker Vaccine (Agrihealth) allows cattle to be vaccinated to avoid them catching the disease and also allows us to differentiate infected animals from vaccinated animals. A missing antigen in the vaccine strain means a blood test can be used to tell these animals apart. What it also does is protect animals from disease at the same time (just as other vaccines do), just as we would want it to. And we are now using this vaccine in the field with potential export opportunities in mind.

It is worth noting that there is a similar vaccine available for Foot and Mouth disease (FMD) too. This is really relevant to New Zealand's FMD-free status- when (I would never say "if" with this disease) FMD gets here we will need to set up a "firebreak" of vaccinated animals to prevent NZ-wide spread. There is a store of vaccine available that will allow us to identify these vaccinated and uninfected animals from those that have been infected but have survived. This is important in not only controlling an outbreak but also in the aftermath- saving valuable genetic material and the livelihood of rural NZ as well as quickly proving to our international trading partners that we have eradicated the disease. Perish the thought that FMD will eventually turn up but the very best of science is on our side in that event...

THIS MONTHS WINNERS:

Congratulations to the following people who won a Brent Smith BS4C Farm Bike Trailer

Graham & Sharon Anderson – Waipukurau Paul Sherwood – Hastings Lloyd & Sonia Holloway - Napier Charlie Riddell -Dannevirke Dan Riddiford – Wairarapa



Congratulations to the Wairarapa winner of the Brent Smith bike trailer, Dan Riddiford of Te Awaiti Station. Dan suggested that the trailer would be ideal for transporting the station's stud Perendale rams around the property.



Congratulations to Hamish Giblin (left) and Tom Tennent. Both CHB farmers entered the Zoetis "Surviving to Thriving" draw this spring and won \$1000 credit with Vet Services. This was a nationwide draw with five potential winners — having two local winners was a great result!

DON'T MISS A TRICK – KEEP THOSE BREEDING EWES PROTECTED AND PERFORMING

RICHARD HILSON AND STUART BRUERE

We all know farming goes in cycles – right now we are in the low end of a cycle, which is good reason to think very carefully about our costs/inputs.

Sheep performance vaccines (such as Toxovax and Campylovexin) have been used routinely across the whole sheep industry in New Zealand now since the 1980's. At the time they were introduced they were seen as "revolutionary" as they helped almost eliminate the huge abortion storms we used to see in our ewe flocks. As an example, in our Wairarapa practice area it was common for Stu Bruere to deal with around forty properties with ewe abortion outbreaks every spring. With the introduction and routine use of Toxovax and Campylovexin/Campyvax4, he now only deals with a few issues a year.

The ewe age groups most susceptible to Campylobacter and Toxoplasmosis infections are hoggets and two tooth ewes. The infectious organisms causing these diseases are present either as "carrier ewes" shedding Campy or young wild cats "crapping" Toxo oocysts (eggs) on pasture during the pregnancy period. If the ewes have not been vaccinated, there is a high probability many of the flock will abort. In trial work with Toxovax, the unvaccinated control ewes aborted at rates as high as 80% of the flock, when challenged with high rates of oocysts on pasture. Wild cats are very common on most properties – they will infect unvaccinated pregnant sheep in many cases. It is worth noting that a teaspoon of faeces from a cat that is shedding oocysts contains enough to make 2000 unvaccinated ewes abort!

So how can we help you in the event of a ewe abortion storm? Well truth is, we can make a diagnosis in most cases and we can offer good advice but truthfully we can do precious little to stop the abortions. We all know that farmers find such experiences enormously stressful and remarkably frustrating. You have one chance a year to "get it right" and that is well before tupping time.

The Campy and Toxo vaccination programmes routinely used in New Zealand were developed almost forty years ago based on a call for action from farmers who had regularly experienced ewe abortion storms. The classic presentation was for these diseases to wax and wane in cycles of about 4 – 5 years. During an abortion storm, many/most of the ewes would be exposed to the infectious agents and develop protective antibodies. A common practical idea was to run the aborted ewes with the ewe hoggets (which were not routinely mated then) so the young ewes had an opportunity to get exposed to "vibrio" and hence gain some immunity. Over time this protection would drop away, leaving ewes vulnerable to another abortion storm. Trouble was we could never predict when it would hit so vaccination

programmes became the obvious option. They remain as relevant now as they were then.

On a sheep front, we have seen farmers drop long term campylobacter vaccination programmes on occasion, in an attempt to reduce animal health costs. Flock immunity wanes as each subsequent unvaccinated age group joins the mob, so that eventually the whole flock becomes unprotected. A campylobacter outbreak several years ago saw 700 aborting MA ewes in a flock of 2300- the farmer had ceased vaccinating four years earlier.

In younger age groups we have seen some spectacular outbreaks of both campylobacter and toxoplasmosis, especially through the "modern" era of sheep scanning. We have seen up to 35% of ewe hoggets aborting at scanning and significant numbers (maybe 5-10%) of hoggets aborting due to toxoplasmosis, always in cases where no vaccination had taken place.

Toxo abortion outbreaks can be seen as sudden events, however, in most cases they occur in dribs and drabs. Often they are diagnosed after docking when too many wet dry ewes are found.

If you are reviewing your animal health programme and input costs give us a call as we can look at your whole programme, including these sheep performance vaccines, and make sure you get the best "bang for your buck". It is always better to "front foot" your decisions when the pressure is off, than try to retrieve circumstances when things are turning to custard. It's your call we would be pleased to hear from you.

As a guide, here is what would be considered Best Practice use of these vaccines. If your programme differs from this then we would love to talk to you about the difference, even if the net result is that the current programme remains in place or is simplified further...

Best Practice for Toxovax: ewes of any age to be bred for the first time to receive one shot of Toxovax (at least four weeks before mating) to provide lifetime protection against toxoplasmosis.

Best Practice for Campyvax4 or Campylovexin: ewes of any age to be bred for the first time to receive a sensitiser shot and a booster shot at least four weeks later, before mating. All previously vaccinated ewes to receive an annual booster vaccination before mating in subsequent vears.

COBALT DEFICIENCY IN LAMBS- A RECENT SEASONAL UPDATE FROM WAIRARAPA STUART BRUERE

So how many of you are watching your lambs struggle to grow on good feed at the moment thinking "I wish the rain would ease up so the lambs can get some sun on their backs"? The issue is probably not directly related to lack of sunshine but more likely, very poor uptake of cobalt by pasture species. Many pastures are low in clover content too at the moment. The very rapid pasture growth conditions we are seeing right now is leading to poor growth rates in lambs on many properties - we have sampled several mobs of lambs and found their serum B12 levels are low/marginal. Clover concentrates cobalt at levels twice as high as common grass species. Cobalt is a trace element the microorganisms in the rumen use to manufacture vitamin B12. This is very important for achieving high lamb growth rates. So if your

lambs are struggling in good feed circumstances – think cobalt deficiency and give us a call. Our vets can blood test or liver biopsy some lambs to check this.



SUPREME SHEEP OF THE SHOW



Left to right – David Lowe (Merial Ancare Territory Manager Hawke's Bay/East Coast), Vet Services Dannevirke clients, Fiona & Simon Prouting winners of the Supreme Sheep of the Show at the 2016 Royal A & P Show – Hawke's Bay and Mark Matthews (Vet Services Hastings).

PROTECT THEIR NUT!

RICHARD HILSON

We are frequently writing about ram testicles so how about the other end, this time?

Protect your rams over summer and avoid them getting poll strike from fighting wounds.

Cyrazin Spray-on is excellent for this if you have the rams in for some special treatment any time soon, or just dip them with Cyrex when you are running the lambs or ewes through the dip.

Rams are a valuable investment and they are starting to feel their oats now- don't let them get fly struck on the head.





VET SERVICES HAWKE'S BAY HOLIDAY HOURS

For emergencies, please note we have a duty vet available at all times

| | WAIPUKURAU | HASTINGS | NAPIER | DANNEVIRKE | WAIRARAPA |
|-----------------------|------------------|-----------------|------------------|-----------------|------------------|
| Sat 24th | 9.00am – 12 noon | 9.00am-3.00pm | 9.00am – 12 noon | CLOSED | 9.30am – 12 noon |
| Sun 25 th | CLOSED | CLOSED | CLOSED | CLOSED | CLOSED |
| Mon 26 th | CLOSED | CLOSED | CLOSED | CLOSED | CLOSED |
| Tues 27 th | CLOSED | CLOSED | CLOSED | CLOSED | CLOSED |
| Wed 28 th | 8:00am – 5:30pm | 8:00am – 6:00pm | 8:00am – 5:30pm | 8:00am – 5:00pm | 8.30am – 5.30pm |
| Thur 29 th | 8:00am – 5:30pm | 8:00am – 6:00pm | 8:00am – 5:30pm | 8:00am – 5:00pm | 8.30am – 5.30pm |
| Fri 30 th | 8:00am – 5:30pm | 8:00am – 5:30pm | 8:00am – 5:30pm | 8:00am – 5:00pm | 8.30am – 5.30pm |
| Sat 31st | 9.00am – 12 noon | 9.00am-3.00pm | 9.00am – 12 noon | CLOSED | 9.00am- 3.00pm |
| Sun 1st | CLOSED | CLOSED | CLOSED | CLOSED | CLOSED |
| Mon 2 nd | CLOSED | CLOSED | CLOSED | CLOSED | CLOSED |
| Tues 3 rd | CLOSED | CLOSED | CLOSED | CLOSED | CLOSED |
| Wed 4 th | 8:00am – 5:30pm | 8:00am – 6:00pm | 8:00am – 5:30pm | 8:00am – 5:00pm | 8.30am – 5.30pm |
| Thur 5 th | 8:00am – 5:30pm | 8:00am – 6:00pm | 8:00am – 5:30pm | 8:00am – 5:00pm | 8.30am – 5.30pm |

SEASONAL UPDATE

HASTINGS/NAPIER

Spring is changeable to say the least but that does mean some regular rain.

Everyone is enjoying the grass abundance...at last; its been slow to get there and its still not warm enough for clover. Soil moisture seems to be back to normal levels, so I have been enjoying an unseasonable crop of field mushrooms with my steak dinners. The lambs need some more sunshine, and of course there are plenty of worms and dirty bums that come with the green grass. Sheep are getting woolly and mowers and balers are primed and ready to go until the next shower of rain. A late southerly blast with snow on the hills seemed to make all of the horses have their foals, with many retaining the foetal membranes, all on my weekend on call. Retained membranes are life threatening for horses, so don't apply cow logic if your mare is due to foal. Call us for advice.

We have seen clinical Theileria in beef cows in a number of herds in the region and suspect that this reflects a good year for ticks – there are definitely plenty of them around – on velvet, on dogs,

WAIPUKURAU

The feed seems to be growing with constant little top ups of rain. However the lambs are about 2-3 weeks behind, suffering from not enough sunshine hours. Many farmers have drenched a few lambs and quite a few ewes earlier this year due to the high pasture contamination and frosts over winter to kill the larvae. The cattle seem to be powering on with some very high growth

DANNEVIRKE

Its been a very wet spring for inland areas around Dannevirke. Coastal areas have received good rainfall as well and have greened up although total rainfall is still well behind in those areas.

Ongoing wet days and changeable weather have made it a difficult spring. This has made it challenging for a lot of tasks to be completed on farm but has at least meant grass growth has been good in most places and will continue into December. It's not just the Irish turning everything green!

A lot of stock around the district look like some sustained

WAIRARAPA

Well how the year has turned around! The rain and pasture growth we have experienced over the whole of the Wairarapa has been nothing short of phenomenal. Our farm vets have now finally finished velvetting the last of the stags – first cut. Worm egg counts in adult sheep have been all over the place so if you have any uncertainty about the effect worms may be having on the condition of your ewes, collect 10 samples into an egg box and bring them right on into the clinic so we can check them out for you. If your ewes are stacking on the weight, remember the Wairarapa is "party central" for Salmonellosis in ewes in New Zealand. This disease kills ewes in good condition – the most common observations are big fat ewes, with a scour around the rectum that have died of no other obvious cause. I have seen

HELEN TAYLOR

on wildlife. A warm winter, regular moisture and long grass make it really easy for ticks to survive they climb up the grass sward to jump onto a passing cow. The timing of the tick bite is probably why we are seeing more Theileria in beefies this year, as its been around in Hawke's Bay for at least 3 seasons, but was usually just an issue for dairy herds. Heavily pregnant cows or those that had a rough time in the snow and are behind in body condition are under more stress than usual which makes them more susceptible to the anaemia caused by Theileria. If your beef cows are slow and lethargic, or breathing with their mouths open then consider this a possibility and we can diagnose the disease with a blood test. Hopefully we are through the most stressful time of feed shortage and calving so maybe store this thought away for late winter next year.

Remember that the ticks were infecting the cows 4-6 weeks ago as it takes a long time for the effects of the disease to show, so rushing out and treating your stock for ticks might not be the magic answer. I would be using some preventative tick treatment on the dogs though, today.

ANYIKA SCOTLAND

rates being achieved. The hinds are all set stocked ready to fawn and look in good condition. Velveting is in full swing with some good velvet weights this year. The dairy cows seem to be behind in the cycling this year and a few CIDRs needed to get the ball rolling.

TIM HOGAN

sunshine would be appreciated. Plenty of reports of lambs not really 'doing' and dairy production seems to be back somewhere around 10% or more from last year. Lambing percentages were reflective of how tough the autumn got in different areas and the ability to dodge a couple of nasty spring storms, with results at either end of the spectrum.

Internal parasites have been the main challenge and coupled with soft grass, it looks like the dagging gear is going to get a work out this year. Watch out for early cases of fly if this sounds familiar.

STUART BRUERE

this condition often enough now, over more years than I care to remember, to suggest to farmers that vaccination is just the smartest way to deal to this problem. Other options such as spreading out your ewes and "praying" will work for a short time, but eventually when the ewes are mobbed up for rotations you will see deaths starting again. Take the stress out of your life and be prepared to be proactive and vaccinate if your ewes appear to be at high risk. The other condition we often see in these "growthy" seasons is cobalt deficiency. If your lambs are just not responding to drench or great feed conditions, think about cobalt deficiency as a cause of this problem and give us a call. Have a very Merry Christmas from all the crew in Masterton.

OUR VET TEAM

Napier & Dave Kruger, Vicki Gilchrist, Veronika Pipe, Mark Matthews, Roger McKinley, Stuart Badger, Hastings: Richard McKenzie, Clare Ryan, Neil Stuttle, Helen Crawford, Helen Taylor, Camille Flack, Rack

Richard McKenzie, Clare Ryan, Neil Stuttle, Helen Crawford, Helen Taylor, Camille Flack, Rachel Griffiths

Waipukurau: Caroline Roberts

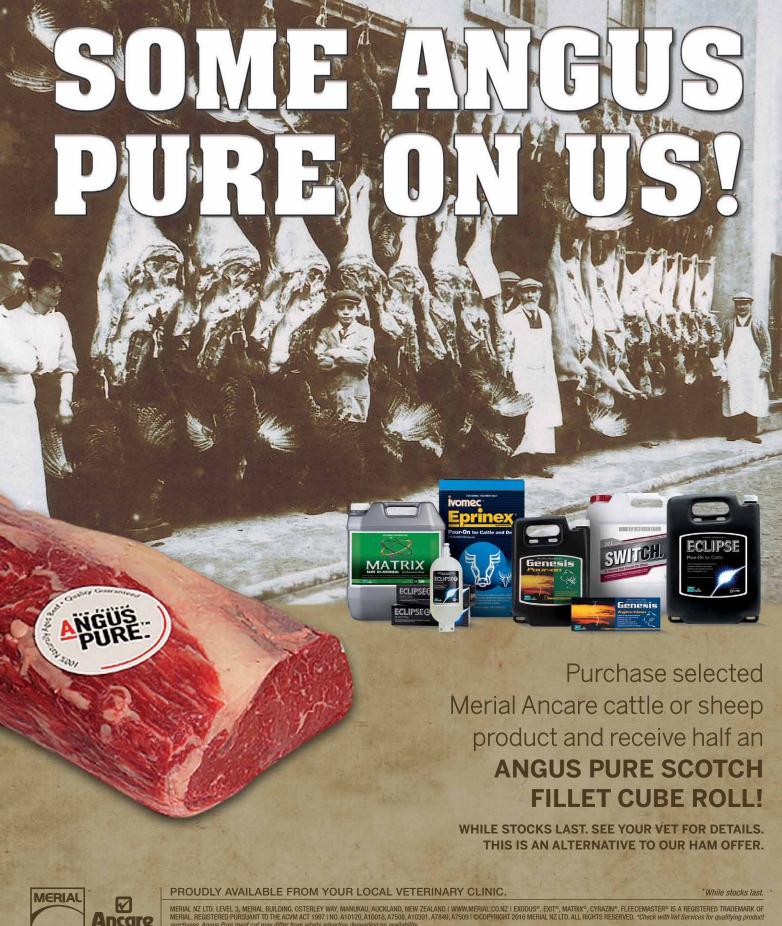
Caroline Robertson, Richard Hilson, Harry Whiteside, Geert Gelling, Anyika Scotland, Kathryn

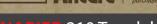
Sigvertsen, Annelise Enslin, Mike Catley, Sam Burrows, Lucy Dowsett and Mike Fitzgerald.

Dannevirke: Simon Marshall, Tim Hogan, Kate Matthews, Johnny Atkins, Ingrid Meijer and Corinna Minko.

Masterton: Stuart Bruere, Sandy Redden, Louisa Broughton, Jacques VanZyl, Nicola Haglund, Sarah Wolland, Elke

Blommers and Sara Sutherland.





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