

Your Monthly Central Region Newsletter From The Alpaca Association New Zealand



Proud mums and their cria - Rachel Norman

As lifestyle block owners, we're all acutely aware of the environment and the impact of deforestation. So over the last two months I have been planting more than 550 trees in an attempt to mitigate my carbon footprint and give a little back to nature. However, following the same logic that the effort of walking to the fridge will burn as many calories as anything I find in there, I realise I may be fooling myself.

What I have noticed though, from some of my earlier tree planting, is the positive impact on the alpaca.

They love the shelter from wind, rain and sun, as well as munching on them when allowed. Paddocks benefit from the wind shelter which causes them to dry out slower and increases the grass yield. It may be minimal, but these steps, however small, all add up to a healthier habitat for birds, insects and our alpaca.

Trees take a long time to establish so we have an article for you this month about building shelters that you and your alpaca will enjoy much sooner. We also talk about yards and the positive impact they can have on alpaca handling and routine care. A little investment in paddock infrastructure can bring many rewards.

In a special article from our resident biologist, Stephen Kellam, we have an article on Nanobodies. A fascinating read about the miniscule world we can't see but may have a profound impact on disease diagnosis and treatment.

We also have a timely article about the AANZ remits for TB testing. All AANZ members will be asked to vote on the remit for TB testing by 14th August, so please take the time to use your vote and help set our future direction. The recording of the recent AANZ AGM should be available on the AANZ website by the time you read this.

For our regular readers you'll also notice that we have increased the size of our newsletter. This is a direct response to the positive feedback and generous sponsorship which makes it all worthwhile. We aspire to bring you an engaging read each month and increase both the readership and content over time. If nothing else, you have some extra sheets of paper to line the budgie cage this month.

John Malsher, AANZ Central Region President
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Contact Your AANZ Central Region Committee - aanzcentralregion@gmail.com

Alpacas and Nanobodies

By Stephen Kellam

Due to the COVID-19 pandemic, most people will be familiar with antibodies – protein molecules that circulate in the bloodstream and form part of our immune system. Antibodies are made by white blood cells as a response to the presence of foreign molecules in the body. Like a key for a lock, the antibody is specific for a particular site on the invader (known as the antigen) whether this is on a virus, a bacterium or any deliberately introduced foreign material, eg. contained in a vaccine.

Mammal antibodies all have a very similar 'Y'-shaped structure. The picture shows the top ends of the 'Y'-shape, each having a region which specifically binds to only one antigen – the others shown do not have the correct shape to fit. A massive number of variations in this region are possible and allow for binding to any antigen structures. All animals will have been exposed to a vast range of different antigens over time and so a large range of different antibodies will be circulating in their blood.

Back to the alpacas. In 1989, a chance discovery by Belgian scientists was that alpacas and other camelid species have about 40% of their antibodies in a different form.

These are miniature 'Y'-shaped molecules which can be extracted and broken up to give the antigen-binding region as a separate molecule, called nanobodies. The stability and small size of these proteins allow them to bind to areas on antigens inaccessible to normal antibodies.

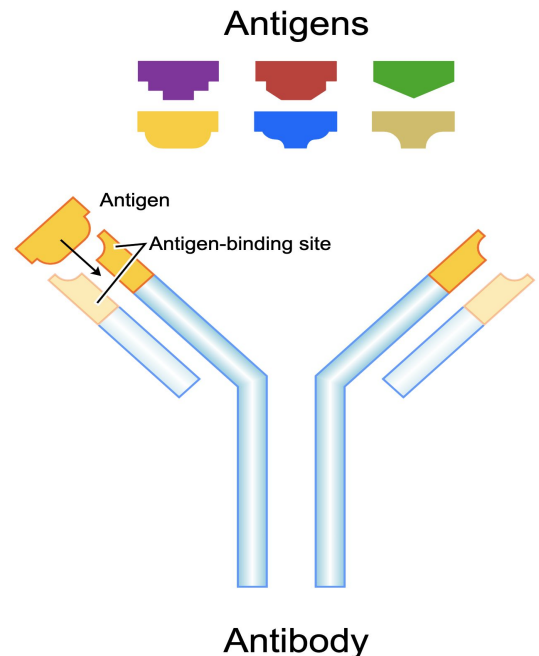
So is there any interest in these research findings? Very much so. The French pharmaceutical giant Sanofi paid \$4.8 billion for Ablynx, the Belgian company set up to commercialise the nanobody discovery so there is clear commercial potential in nanobodies. To date, one nanobody-based drug has been approved by North American and European drug agencies and more are in clinical trials.

A notable result is the development of a coronavirus test for COVID-19 using camelid nanobodies. This test is reportedly almost as accurate as the widely used PCR method and much faster. Given the urgent need for new therapies in this pandemic, nanobodies are also being examined as novel anti-viral agents. Nanobodies have been raised against the COVID-19 spike protein and prevented the virus from infecting cells.

It should be noted that COVID-19 is only one member of the Coronavirus family, others cause a wide range of illnesses in humans ranging from the common cold to Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). In many other species including alpacas they cause diarrhoea, hepatitis, encephalomyelitis and respiratory illnesses. New therapeutics to treat these serious diseases will be very welcome and nanobodies are strong candidates.

It's a new angle to alpacas as therapy animals.

Should anyone want to delve deeper, there are a large number of nanobody review papers freely available on the internet.



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TB Testing - which remit gets your vote?

By Rachel Norman

When alpacas first came to New Zealand there was concern about how they may spread TB (Tuberculosis), so the Alpaca Association of New Zealand (AANZ) entered a voluntary scheme for testing and reporting camelid herd tuberculosis status.

This was to contribute to the national animal disease control of TB, and meant improved acceptance of the alpaca and llama industry by mainstream farming groups. The AANZ TB testing programme has always been voluntary, but all alpaca owners are recommended to take part.

AANZ does not subsidise the TB testing scheme. This testing is still a requirement of camelids entering Royal Agricultural Society (A&P Society) showgrounds, details of which can be found in the RAS Showing Rules and Regulations and animals for export/import.

In 2017 a remit was put forward to the RAS to abolish Rule 99 requiring whole herd TB free status. However this was withdrawn by the AANZ before it went to vote with the RAS members. Now the AANZ are putting forward 4 possible remits for you to vote on.

All 4 of these remits will be sent to AANZ registered members along with voting papers by the end of July 2021.

It is important to note that OSPRI (TBFree NZ) and Ministry of Primary Industries (MPI) have little to no concern about camelids and the spread of TB within New Zealand, only requiring TB testing for camelids on export/import.

In early 2020 AsureQuality, who are contracted by OSPRI to deliver TB Testing, ceased TB testing for camelids, leaving it the responsibility of the owners and in the hands of vets. Vets are able to run the tests if you request it or if they believe there is evidence that an animal may have the disease.

It is important you vote and have your say as these remits have an impact on the future of shows and access to Royal Agricultural Society venues, of which many of these events have the potential to generate trade for members and increase the profile of alpacas in New Zealand - not to mention are loads of fun and a great way to meet other AANZ members!

But wait... what happens next!? Well once the AANZ members have voted their preferred remit it must reach the RAS by 15 March 2022. The RAS encourage to submit the remit via the District process to see it has support in the first instance.

The RAS then collates all the remits and sends them to the Ordinary Members for postal voting, these are then returned to Head Office and counted by an independent scrutineer. The results are then announced at that years Conference and take effect from 1 July of the same year.

Links:

- RAS showing rules and regulations - <https://www.ras.org.nz/wp-content/uploads/2020/09/Showing-Rules-Regulations-2020-21.pdf>
- 2017 remit - <http://www.ras.org.nz/wp-content/uploads/2013/06/RAS-Remit-2017-Sixteen-Alpacas-Llamas-TB.pdf>

Volunteers Needed - National Show BBQ

Can you help ?

On Friday the 24th of September, the AANZ National Show is hosting a BBQ for all exhibitors. We are looking for volunteers to help with the buffet and BBQ that starts at 6pm. This includes sourcing and preparing the salads and desserts, as well as cooking all the meat. This is also a great opportunity to talk to some of the best breeders in the industry. Please email aanzcentralregion@gmail.com if you can help.

Building Alpaca Shelters

By John Malsher

Opinions are great and everyone has one. This is especially true around the topic of shelters. Some people are dubious about their value and rarely observe their alpaca making use of them. Others see shelters as essential for care and welfare of alpaca in any climate. I'm personally of the opinion that a shelter has many uses and will provide years of value beyond its cost. So why not create one in each paddock, even if your alpaca choose not to use it.

Here are a few good reasons to build alpaca shelters.

1. Water. This is an increasingly precious commodity, in a controlled and usable way, which can be effortlessly harvested with a simple shelter using low cost tanks and a single-run gutter.

My own setup of 3m x 3m shelters and dual 200 litre tanks from a mono-pitch roof ensures the trough is full of fresh water all year. There are no pumps as gravity does all the work. Simply mount the tank above the trough line. This is a low cost, simple and maintenance free source of water and keeps algae under control as the trough is sheltered from the sun. Alpaca enjoy access to cool water in summer.



2. Food storage. If the width of a shelter that has walls is the same as the length of a farm gate, it is easy to make a storage area at the back of the shelter by placing feed and other supplies behind the gate. Keeping food closer to where it is needed, while dry and away from hungry nibbles, means less work and effort for you to carry and distribute. Be sure to use a gate which isn't going to allow the alpaca to climb up or put their head through. Unless you want to use this as a feeder.

3. Protection from the elements for both you and your alpaca. Recent weather events here and overseas are a wakeup that the weather we once knew has changed. Extreme heat to howling winds and unprecedented rain are to become the norm.

Unfortunately these extremes arrive with very little warning. Having a shelter before you need it is essential, as handling sheets of material in anything other than great weather is challenging. Even if your alpaca choose not to use your shelter themselves, having the ability to move them into the shelter when the weather turns nasty, or for ad-hoc handling such as vet visits, will make your alpaca ownership more pleasurable and less stressful.

4. Shearing for the smaller herds. Most large herd breeders will have a solution for shearing. For the smaller breeder, temporary shelters or shearing in the open can work, but rarely work well in all conditions. Having seen most of my first shearing blow away in the wind, I personally know the cost impact of not having a suitable environment.

Your shearer will thank you too, if you can give them shade on a hot summer's day. When building a shelter that you can use for shearing, be sure to allow space and height for a shearing table in each of its positions.



Paddock Infrastructure



New Zealand Resource Management Act has relaxed the sizing constraints on pole based buildings which now allows for shelters to be built larger than 10 square meters without certification. However 10 square meters is a convenient size and if you're not looking to go any larger, there are some very simply steps to build a shelter of this size and keep costs low.



Poles with flat surfaces make for easy alignment and mounting of other timber.

Always cut a section from your poles to hold any cross timbers. This allows the downward force to be carried by the pole. The bolts are now serving the purpose of holding the wood in place, not carrying the full weight.

Use diagonal straps and tensioners to ensure the roof remains true. Don't rely on the iron or other sheet material for this purpose. Straps must be mounted to the poles so that they can take the strain of wind pushing up into the shelter and across it. A strapped roof will ensure forces are distributed evenly throughout the structure.

If you are making any cuts to the sheet metal, or holes for screws, try to do cuts and drilling outside of the paddock where your alpaca will forage. Small metal shards are impossible to clean up and have the potential to be ingested. A cow magnet is often fed to a cow where it remains for the life of the animal collecting stray metal in the stomach before it can cause pain to the cow. I'm not aware of any equivalent for alpaca.



Do you have an alpaca business?

We would love to get this newsletter into the hands of more alpaca owners. If you are a shearer, vet or have a customer base of alpaca owners, would you be willing to help distribute this newsletter if we send you copies?

In return we would like to help promote your business here. Everyone working together to grow the alpaca industry.

Easier Alpaca Handling - Using Yards

By John Malsher

We've looked at shelters, the value they offer both to you and your alpaca, as well as some handy building tips. Next, let's have a look at yards and how they can make life easier when we're working with our alpaca.

My own yards were originally designed for cattle so are a little larger than they need to be. However they have a distinct shape which benefits all kinds of animal handling.

The curved funnel, also known as a french horn layout, makes it easy to move animals from the larger holding area into a single width channel. They can see ahead of them but only so far, removing hesitation and turnaround.



The objective here is not to force alpaca to do something they don't want to. They walk shoulder to shoulder with their friends and it's too late by the time they realise they are in single file and are being moved along by the alpaca behind them. At this point they have passed a narrow swing gate which can be closed. They are isolated from the other alpaca but can see them clearly in all directions. The alpaca typically move through these stages without encouragement, with each one taking turns to be in the isolation room where we can interact with them safely.



Safe handling

This area is wide enough for the alpaca not to feel stressed but a little too tight to easily turn around. It makes for a safe area to work as there is little opportunity for them to kick you. And if they choose to sit, there is room to kneel next to them if needed.

With someone handing you the tools and medication, drenching, injections, nails and body scoring can be done quickly and stress free. As soon as the work is done, the side gate opens and they are reunited with the herd.

Water and food

We always provide a trough with fresh water in the yards once they enter the exit lounge. We have tried offering chaff and their favourite nibbles, but after drenching, this can become messy and unchewed food being sprayed in the air isn't nice. The treats wait until they are back in their paddocks.

This final stage is an essential place to monitor their condition before they return to the paddocks, as any coughing or unusual behaviour can easily be resolved when they are in the yards, rather than having to bring them back in again.

Size and construction

There are many plans online and no "on-size-fits-all" design or construction method is best. So here are some top tips that are good to get you started. You'll want to add to these when designing your own yards.

1. Build high enough to discourage any attempts at jumping. In confined spaces, alpaca are surprisingly springy and a regular fence won't be enough to keep them under control. If the sides are high enough, they won't try.
2. Use ply on the sides to prevent legs getting caught between the slats. Not too high to obscure their view, but all the way to the ground to prevent feet going underneath. The pictures here are all before I added ply.
3. Build the best you can afford. Any yards will be better than no yards, but the more you can put in, the more you will get out.
4. Use them regularly. Maybe keep them open for the alpaca to wander through themselves. This should be a non-threatening environment that they are happy entering into. Happy alpacas make for easier handling.

Sponsor Highlight

A special thank you to our sponsors and contributors who make it possible for us to keep producing the AANZ Central Region Newsletter each month and for the amazing feedback that makes it all worth while.



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- » All inputs are New Zealand wild caught fish.

Typical NPK 8-1-2

pH Range: 2-4

Mix application ratio:

100:1

Volume available: 1000 L

Typical Analysis

MACRO ELEMENTS

Nitrogen	4.20%
Phosphorus	0.55%
Potassium	1.10%
Calcium	0.80%
Sulphur	2.00%
Magnesium	0.89%

TRACE ELEMENTS

Iron	<10mg/kg (ppm)
Boron	1.9mg/kg (ppm)
Cobalt	<0.2mg/kg (ppm)
Copper	1.58mg/kg (ppm)
Manganese	0.44mg/kg (ppm)
Molybdenum	0.04mg/kg (ppm)
Selenium	0.7mg/kg (ppm)
Zinc	4.7mg/kg (ppm)

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Industry Spotlight

What do we mean when we say **Alpaca Industry**? For some, it means the sale of alpaca and alpaca by-products, including fleece, woven goods and meat. For others, it is the services and products that breeders and owners consume or purchase, such as shearing, fleece pools, fencing contractors and tools.

There are industry overlaps where one serves the other such as alpaca serving tourism and textile manufacturing.

When we assemble all of the many facets of alpaca ownership, it's an enormous and complex network of related and interdependent moving parts. Many of those parts, notably in New Zealand, are small family businesses.

Some of these parts are solely focused on alpaca, while others see alpaca as one of many uses of their service. Diversity is good. Feed supply stores don't feel the pinch if the demand for alpaca supplements rises or falls due to seasonal shifts in diet as much as a business dedicated solely to serving alpaca owners year round.

Small and highly fragmented markets can become fragile if not nurtured and protected. But they can also benefit from their agility to adapt and focus on niche markets within the industry if opportunities are accessible.

The only certainty is change and we're seeing constant change in the New Zealand alpaca industry.

Some breeders have reported seeing supply and demand issues finding shearers, while most breeders are being hit by a decline in the quality of fleece in the national pool. The average alpaca price has been declining each year as they become recognised less as exotic animals and more as mainstream paddock companions for the lifestyle.

Change brings opportunities. Each month we will focus on different corners of our industry, calling out areas of growth and ideas that we can all benefit from. Together we will drive a positive impact on the alpaca industry.

Upcoming Events

Saturday 14th August 2021 - Wairarapa Cluster Group @ 10:30am

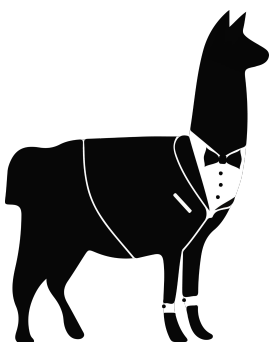
- 189 Kokotau Road, Kokotau, Carterton 5792.
- All the usual fun of a cluster group plus Anthony will have his microscope so bring your poo samples.
- Please bring a plate to share for lunch. But don't mix this up with the sample ;)

24th, 25th and 26th September 2021 - National Show

- Entries Close 20th August. Forms are on the alpaca.org.nz website.
- Lisa Charteris is doing micron testing.
- Breed and fleece judging by Dean Ford.
- Fleeces to be delivered by the 13th September to Bob and Jenny Phillips, 153 Halcombe Rd, R.D.5, Feilding. 4775.

22nd October 2021 - Hawkes Bay Show

- Entries Close 10th October, entry forms are on the alpaca website and it is a breed and fleece show.
- Fleeces to be delivered by the 15th of October to Cheryl Hunter, 7/11 Symon St, Parkvale, Hastings.
- Judge for Breed and Fleece - Lisa Charteris.



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