

THE STATE OF THE NATIONAL REGISTERED HERD

by the Registry Working Group

With our registry, the IAR (NZ) being a computer database we are fortunate enough to be able to analyse the entire database from time to time and extract useful information. As with all databases, they hold the answers to many different questions, it is just up to the user to ask the right questions.

Following on from 2008, then 2012, we have now produced a 2015 analysis of the registry. For ease of comparison and for spotting trends we have used the same questions as before. There are a couple of exceptions. In this analysis

we have restricted our data to just those alpacas on the registry. We have not made any attempt to guess the number of unregistered alpacas within New Zealand. The second significant difference is that with the recent enhancements to the registry in the area of Parent Verification, we can now begin to report on those numbers too.

How many registered alpacas are in New Zealand?

The current figures for registered alpacas is 19,461. This is an increase of approximately 2000 since 2012 and 4500 since 2008 when there were 15,000. The trend is still upwards. Unlike some other livestock industries there has not been a sudden rise in numbers where

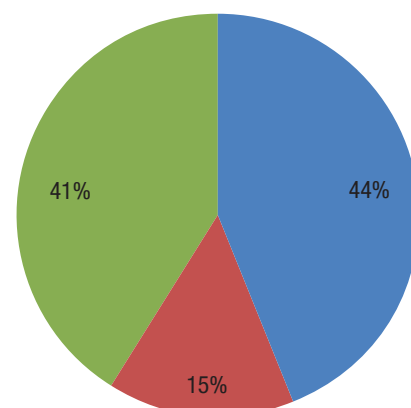
numbers can quickly outstrip the need for alpacas, and hence an industry can fail. Alpacas have a slow and steady rise that is mainly due to them having just one cria per year and to the fact that the majority of males do not go on to be breeding males. Whilst the database shows there are 6740 registered males, it is fair to assume that there are many more living in NZ than reported. Of these males 5,766 are huacaya and 974 are suri. When we analyse the females, there are 10,952 huacaya and 1769 suri females making a combined total of 12,721 females on the registry.

Where are all the alpacas?

Our initial estimate of there being 19,461 alpacas in NZ can be further divided to show their regional locations. Looking at the table you can see that in 2015 59% live in the North Island, 41% live in the South Island. As our database segregates herds into smaller zones around the country the table shows you the distribution of alpacas across the country.

Registered Alpacas in New Zealand – Region

■ Northern Region ■ Central Region ■ Southern Region



	Huacaya	Suri	Total
Registered Females	10,952	1,769	12,721
Registered Males	5,766	974	6,740
Total Registered	16,718	2,743	19,461

Zone	Registered Alpacas
Bay of Plenty	1414
Canterbury-Mid	2880
Canterbury-South	861
Canterbury North	1966
Central Plateau	160
Coromandel	123
East Coast	167
Fiordland	25
Hawkes Bay	699
Manawatu/Wanganui	1630
Nelson/Marlborough	836
North Auckland	2316
Northland	742
Otago	1088
South Auckland	890
Southland	315
Taranaki	266
Waikato	2162
Wairarapa	383
Wellington	539

Herd size

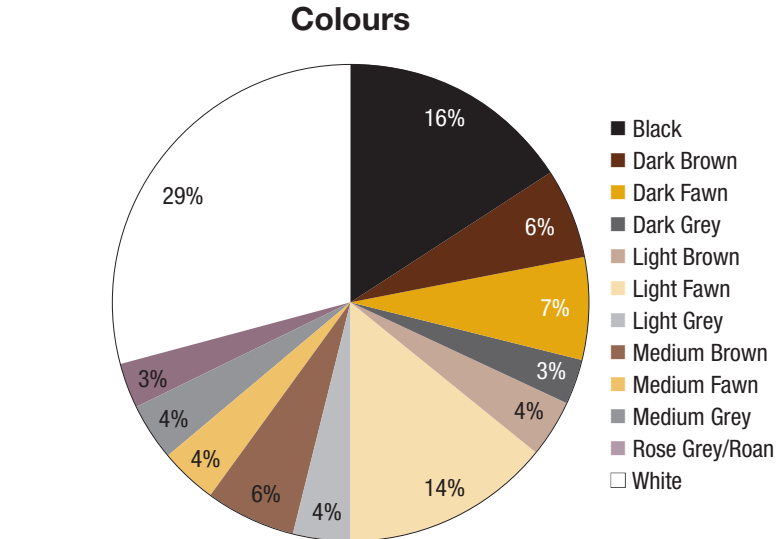
There are two herd codes that have over 400 alpacas in them. There are still a large number of small herds, but they actually contain a small fraction of the total registered alpaca. This fact therefore has little effect upon the whole herd statistics but has a bigger effect on the direction of the industry as a whole in that a large number of member votes are held by the owners of a small fraction of the national herd. 28% of the total number of herd codes in the AANZ have 10 or fewer alpacas in them.

If we look at the herds which contain the largest number of registered alpacas, the top 20% of herds own more than 42% of the total number of alpacas on the registry.

Colour Statistics

When a cria is born in our paddocks we run through a certain number of questions in our heads: Is it alive and OK? What sex is it and what colour is he/she? For this analysis Huacaya and Suri are put together. In practice, if this information is to be used by the AANZ in any forward planning for fleece sales and marketing, the two very different fleece types would need to be reported separately through a different analysis. However, here we are just giving a national overview.

The newest type of analysis we can run is to do with those registered alpacas who have been DNA parent verified (PV).



These alpacas have been proven beyond doubt to come from the parents stated. We have been able to carry out voluntary DNA parent verification for a few years but recently the AANZ enhanced your registry by putting a logo of a strand of DNA beside each alpaca that has been Parent Verified. This logo is un-missable on the computer screen within the search results table, in the 4 generation pedigree and on the individual alpaca listing or pedigree certificate. It is hoped that this obvious acknowledgement of an alpaca's true identity will encourage more breeders to Parent verify their own progeny as they are born. As this is in its infancy we should view the number of PV alpaca on the database in 2015 as being the baseline figure. In analyses that we run in future years we hope there will be a steady increase in the PV numbers.

In 2015 the baseline number fully DNA parent verified alpacas on the IAR (NZ) is 136 (active) and 165 that have been tested but some of them have been sold overseas and are no longer active on the registry.

There are other alpacas that have been DNA matched against their mothers (Dam match) 13 total and their fathers (Sire Match) 19 active, but the DNA sample of either the mother or father is not available for them to be fully verified. They are at least half proven!

How can we make the analysis more accurate?

On the members section of the website you are able to download a form A6 (change of animal status). This form should be used to let the AANZ office know of any alpaca that

has died, been sold to non-members as pets, is to be removed from the registry because it has a disqualifying fault or maybe has been exported and sold abroad. Status changes are free. You can register your cria as soon as you like using the online registration forms which are easy to use and it costs less to do this online than by the old fashioned paper way.

The quality of the results from analyzing any database is only as good as the accuracy of the information held within that database.

Please keep your herd registrations up to date.

ENHANCING YOUR REGISTRY

Historical Perspective

In the normal course of your routine around your farm you may not think very often about the importance of our registry, the IAR NZ. However it is enshrined in our constitution that National Council must insure the rules and regulations surrounding the Registry are enforced. Years ago (and in some cattle breed societies to this day) registries were called stud-books, they were physical ledgers into which all the names, breeding and progeny of the pedigree animals were written. By their very nature (one large paper ledger) access to them was restricted, ability to update them was limited to one or two people, the registrar, and

they were updated maybe once each year. It was hard to know which animal lived where and it was hard to know anything current about each animal.

Stud-books or registries relied upon the owner stating who bred with whom and declaring what was the result of that mating. The accuracy of that information was entirely dependent upon the honesty and accuracy of the records kept by pedigree animal breeders. Then their information had to be accurately transcribed by hand into the registry by the appointed Registrar.

Before the advent of modern DNA technology (before they even knew what DNA was in fact) breed societies made efforts to keep the information on their registries accurate by putting rules or restrictions upon the mating/breeding decisions of their member's stock. These are registry regulations. They are the written rules that tell us as members what we can and cannot do when trying to put information upon the registry. An important regulation is regulation R1 7.4(b) ii (i). In plain English it is a regulation that says we must never mate a female to one male, then change and mate her to a different male unless there is a gap of 45 days between the two different matings. Did you all know

that? Do we all do this religiously? This regulation was put in place so that a baby born at full term is easily traced or attributed to the mating with just one male. With a significant gap of 45 days between different males it ought to be possible to know exactly which male fathered the offspring. In that way the information put onto pedigree registries was supposedly accurate and thus the 'integrity of the registry' was protected.

The Registry Now

With the advent of computers and electronic databases things have thankfully moved on, certainly in the alpaca world, as we have an entirely electronic database called the International Alpaca Registry (NZ). We acquired the right to control our own registry and to determine our own future when we separated from the IAR and became the IAR (NZ). This was a major step forwards for the AANZ and it's members. We talked about there being a gradual step-by-step series of improvements and enhancements to the IAR (NZ). Firstly we added our very own style of user-interface. The black white and grey page you see carrying the AANZ logo each time you log in to the registry. We added show catalogue creation software

to help our show convenors create accurate catalogues more easily. We brought in online registrations of our cria. This was coupled with a new monthly invoice based payment system so we no longer needed to send cheques with each registration.

Recently we added a number of new colour classifications within the fancy colour section when registering new cria so their markings can be recorded more accurately.

We can have our records added almost overnight; it allows us to keep current with any apacas details and with their breeding events. We can all become Sherlock Holmes if we wish and enquire about the wider families of any alpaca, find out the colour of its progeny when coupled with different dams etc. However there is still one major flaw in our modern, technologically advanced registry: it is entirely based upon the accuracy or inaccuracy of our members' record keeping. We look at a pedigree certificate and in black and white (well blue and white on our computer screens) it SAYS that Flossie and Jimmy gave birth to Starlight. We seem to be happy to take it on face value, but it is potentially completely inaccurate.

Since the pioneering work of James Watson, Francis Crick and a few other clever scientists DNA was discovered. It is the key to our genetic blueprint. DNA technology now allows us to take a tiny spot of blood from our alpacas, along with blood from their parents and can prove without a shadow of a doubt that the cria is indeed from the parents we say it is from. We call this DNA parent verification or PV. Uncertainty has been replaced by our ability to PROVE accurately who the parents are.

The AANZ National Council is very proud to announce that DNA parent verified alpacas on the IAR (NZ) will be recognized as having their parentage **proven beyond doubt** by being associated clearly with a new Parent Verified Logo.

What Will We See?

Working with ABRI who host and maintain our registry, we have developed the following clear ways by which users can see which alpacas are DNA parent verified. This means their heritage is proven.

Prefix & Animal Name	Sex	IAR	Birth Date	Type	Animal Status	Colour	Parent Verified
THISTLEDOWN JAMIROQUAI	Male	1010278	20/03/2013	Suri	Active	Solid Light Fawn	
THISTLEDOWN NAZIR	Male	116612	09/02/2008	Suri	Active	Solid Dark Fawn	XX
THISTLEDOWN SIROCCO	Male	1010279	19/03/2013	Suri	Active	Medium Fawn	
THISTLEDOWN THIRTEEN	Female	1001341	06/11/2009	Suri	Active	Solid Black	
THISTLEDOWN WHIRLIGIG ET	Female	165344	21/11/2010	Suri	Active	Solid Black	

When you begin your search you start with the AANZ landing page. Here you will see a new search button that allows you to look specifically at Parent Verified alpacas only. The default selection will remain the same, you are searching through all the alpacas, but if you click the search button 'Parent Verified Only', your search will be restricted to only those alpacas with a proven heritage. (These examples have been created at random by technicians at ABRI.)

There are many other ways of seeing information or searching for information from the IAR. When you ask the IAR to select a list of alpacas from your own, or any other herds you see a familiar table. Now you will see a small logo displayed clearly beside every alpaca that has been DNA parent verified.

If you select or click upon the alpaca with the DNA logo displayed in the final column you will see this. The logo has the words Parent Verified clearly displayed alongside the image of the DNA logo.

When you view the pedigree of any alpaca, those alpacas in earlier generations that are DNA parent verified will show up with the simple DNA logo against each PV alpaca in the pedigree.

How Can I Get Involved?

The blood collection method is easy, the cost very affordable and the scheme voluntary, but inclusive to all members. Contact Toni Soppet in the office for some blood collection papers and you will be provided with instructions on how to collect your samples.

Looking To The Future

In time we can expect pedigree certificates to show three or four, then more generations that have all be DNA Parent Verified. It is our aim to applaud and clearly recognize every alpaca on our registry that is proven to be from the parents stated. The AANZ wishes to help members create a registry that stands alongside the very best in the world.

The registry of the future will be using these very alpacas as building blocks for excellence and accuracy. We are striving to offer our members ways by which they can enhance their own herds, create new business opportunities and be proud to be breeding alpacas in New Zealand.



Ident No: TDN D0014
Sex: Male
IAR: 116612
Birth Date: 09/02/2008
Status: Active
Breeder: [STEPHANIE, PHILLIPA & MOLLY GARI](#)
Current Owner: [LAURELL MACDONALD](#)
Current Owner Region: Waikato
Type: Suri
Colour: Solid Dark Fawn
Certified?: Yes 28/08/2009
DNA No.: 782258
 Parent Verified
Progeny: [\[19 - View\]](#) [\[View by Herd\]](#)

— [PPERUVIAN URIBE G4559](#)

— **Sire:** [ILR NGG FERRARI \(Imp. U.S.A\) Solid White](#)

— [PPERUVIAN ERIKA B4021](#)

Animal: [THISTLEDOWN NAZIR Solid Dark Fawn](#)



— [KAIHERE ACCOYO BRILLIANTE Unreg. Imported \(Imp. P](#)

New Zealand Alpaca Animal Details EL DOS CADENA TITAN

[Administration](#) [Information](#) [Animal Enquiry](#) [Member Enquiry](#) [Download Files](#) [Online Transactions](#) [Show S](#)

Ident No: EDC K0045
Sex: Male
IAR: 1014780
Birth Date: 28/01/2014
Status: Active
Breeder: [RITCHIE & MAREE CHURCHILL](#)
Current Owner: [RITCHIE & MAREE CHURCHILL](#)
Current Owner Region: Canterbury North
Type: Sun
Colour: Solid Dark Brown
Progeny: None

· [PERUVIAN SIRE](#)

— [EP CAMBRIDGE PERU ACCOYO ARMADEUS Unreg. Imported \(Imp. Peru\) Solid White](#)

— [PERUVIAN DAM](#)

· **Sire:** [VALLEY OF PEACE LEVIATHAN Solid Dark Fawn](#)

· [VALLEY OF PEACE SABASTIAN ELITE Unreg. Imported \(Imp. Peru\) Solid White](#)

— [VALLEY OF PEACE AMBER ROSE ELITE Dark Fawn](#)

— [VALLEY OF PEACE DIVA ELITE Unreg. Imported \(Imp. Peru\) Solid Light Fawn](#)

Animal: [EL DOS CADENA TITAN Solid Dark Brown](#)

· [ILR NGG FERRARI \(Imp. U.S.A\) Solid White](#)

— [THISTLEDOWN NAZIR Solid Dark Fawn](#)



— [AL BRIONI AMBROSIA Solid Light Brown](#)

— **Dam:** [EL DOS CADENA GAIA Solid Dark Fawn](#)

· [HADSTOCK N.Z. IMPERIAL Solid Medium Fawn](#)

— [EL DOS CADENA AQUILA AMOUR Medium Fawn](#)