

Beyond Ultrafine



Resurrecting the Incan Alpaca

By Julie McClen - Oak Grove Alpacas NSW

To many breeders the term ultrafine may still seem relatively new, and something they are yet to achieve to any great degree in their breeding programs. Ultrafine, generally referring to 18.0 micron and below, is a term that was introduced into the alpaca industry with the very first ultrafine bale produced back in 2006, nearly a decade ago.

Yet to a few select breeders throughout Australia moving beyond ultrafine, to a class of fibre in alpaca unknown since Incan times is not just a dream but already a reality.

Whether this focus seems delusional or visionary, these breeders are showing that either way the existence of alpacas in Australia producing a fleece under 15.0 micron for more than a year can't be denied, and may well be the start of the resurrection of an alpaca with fibre that only the Inca would recognise.

The work of the famous archaeozoologist Dr Jane Wheeler shed light on the alpaca of the ancients, when she studied several mummified alpaca discovered in the Pre Columbian El Yaral site in Peru over two decades ago. These adult alpaca sacrificed to the gods were considered to be the culls of the herd, yet some had ultrafine fleeces.

Considering the alpaca has been shown by DNA analysis to be directly descended from the vicuña*, the finest natural fibre producing animal in the world, with an average of 12.5 to 14 micron fleece, it's no surprise that the Inca had alpacas at the very fine end of the spectrum. In Peru today there is a project planned to create a special herd of alpaca through DNA testing to determine those alpacas whose genetics most closely match the ancient alpaca last seen by the Inca over 500 years ago.

But what is the point of all this pushing of the envelope, when discussing ultrafine and beyond often generates the criticism that there is no market for this finest of alpaca fibre? To answer this you have to look no further than the alpacas diminutive relative to see there is already a market for the ultrafine vicuña. The vicuña only grows fawn fibre cutting a mere 500g per animal with a length of just 50mm biannually, which also needs to be dehaired. Prices for this fibre in the last decade have reached as high as US\$1000 per kg, proving it is definitely a market that exists and one that is well worth pursuing.

Famous Italian garment manufacturer Loro Piana is renowned for it's vicuña garments and secures around six to eight thousand kilos of vicuña each year to produce an exclusive range of products with



Ultrafine Female - 14.6 Micron 2nd fleece

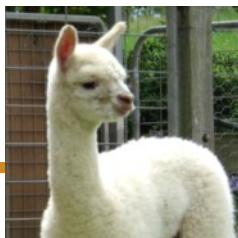


a single vicuña scarf from Loro Piana retailing at about US\$4,000. Another Italian tailoring house Kiton makes only about 100 vicuña pieces a year, with sport coats from around US\$21,000 and made to measure suits starting at US\$40,000.

Having established that a market for the finest of camelid fibres does exist, like all fibre markets you can't expect to have a bite of the cherry unless you can produce a quantity that allows a manufacturer to make enough product to be financially viable. But you don't get that quantity if you don't attempt to create it, it all has to start somewhere, and that somewhere for the finest of camelid fibre can be in the paddocks of Australia, it doesn't have to stay confined to the wild herds of vicuña on the far distant Alta Plano of Peru.

So what if we could breed an alpaca to rival the vicuña ?

A manufacturer processing vicuña has limited options due to colour and length. Imagine being able to offer them an alternative - a white alternative, that would allow them to easily produce any colour garment they desired.



The Italians are famous for paying large sums for single bales of the finest ultrafine merino. What would they pay for a bale of the finest ultrafine alpaca whose handle equates to an average of at least 3 micron finer than merino at the same micron? This could be a sensual sensation in the world of the high end fashion market.

These are the lucrative markets that could be ours if we can organise our industry to focus on something that is actually financially viable to the breeder. Instead of paying as much as \$25 a head to shear a fleece that is worth less than the cost of shearing, you could be seeing that fleece as a money spinner, not a money pit.

As one of the studs in Australia whose focus has always been to breed toward an alpaca whose fine fibre returns to the pinnacle of the alpacas heyday under the Inca, here at Oak Grove Alpacas we have started to see results of sticking to our guns for nearly 15 years. We have ignored the critics and followed our passion with some amazing results.

The results of our tenacity have been even more impressive when you understand where we live. We are located in the Bega Valley on the far south coast of NSW, right smack in the middle of dairy country! So why is that relevant and what does that mean for fibre production? If you have heard the term 'fine wool country' then you would know that fine wool is traditionally grown on pasture that is not lush or high in protein, that lush sort of pasture is better used to produce milk and will usually affect fleece animals by increasing the micron of the fibre.

So what were we thinking, trying to produce not only fine fibre in dairy country but push the boundaries of what is possible back into the realms of the past? Well, we didn't know all this when we started out in alpacas, luckily maybe, as we may have never discovered what a bonus these circumstances would prove to be in our quest to go 'back to the future'.

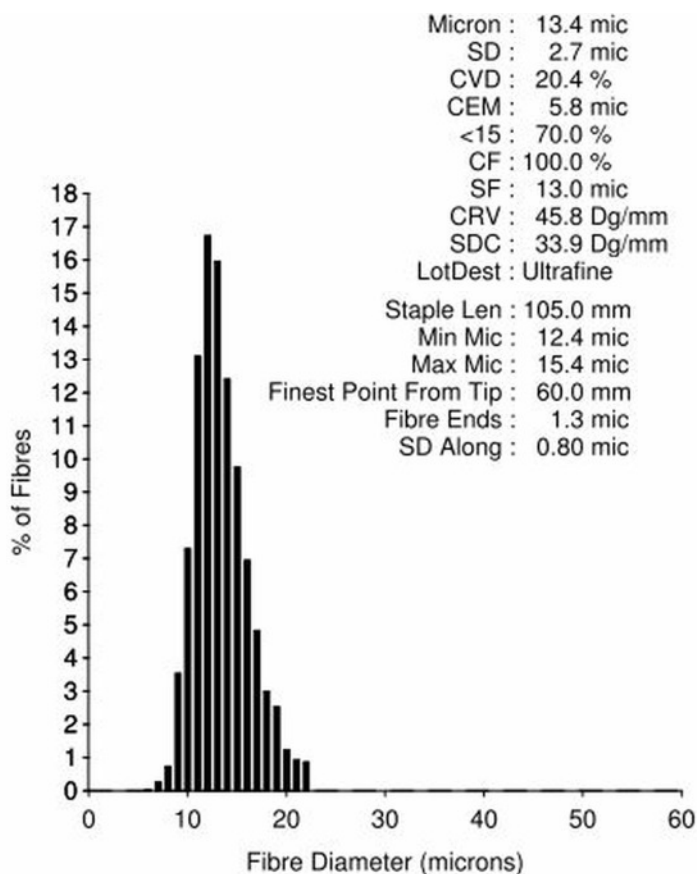
Not only did we blissfully dream of producing the finest of alpaca fibre, but we also decided to hand feed a 16% protein dairy pellet and horse stud mix as supplement to our pregnant mums (at amounts approved by a camelid vet). Having previously bred dogs and seen the excellent results in the pups health and bone structure when the mother was supplemented, we wanted to give the best start to our cria. This had the result we now know of predictably blowing out the micron of many of our alpacas, but we also found that a few, despite our feeding regime plus richer pasture were remaining stubbornly fine.

We had discovered that alpacas with truly fine genetics could not be blown out to the same degree as their relatives, whose previously finer fibre may have been more the result of 'fine wool country' type pasture, or reduced nutrition, than genetics.



Ultrafine Male - 2nd Fleece at 20 months of age

2nd Fleece Histogram shown below

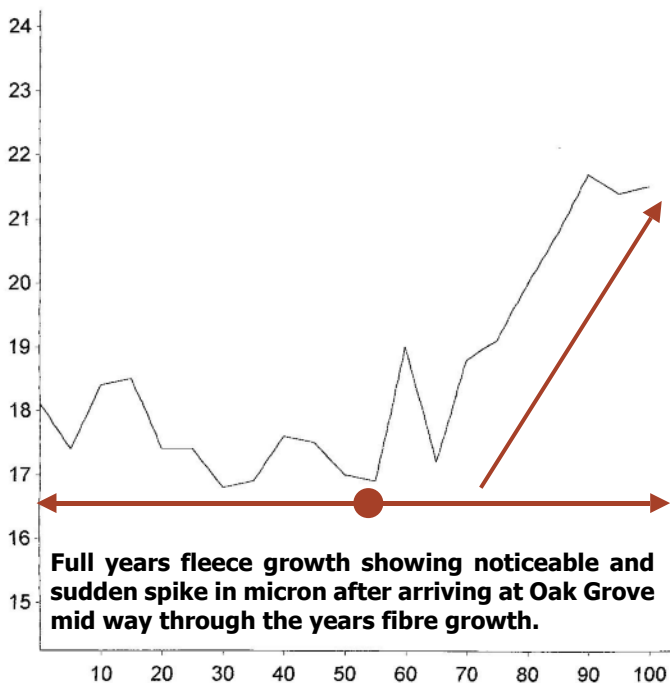


We built on this core group of animals, increased our supplementary feed to all members of the herd on a daily basis, and sold off those whose genes were exposed by this method to not be those able to produce and maintain fine fibre past their second or third fleece.

We have been caught out more than once buying in 'fine' alpacas from other areas to see their fleece profile jump 5-6 micron in 6 months in some instances! (*As shown below*) We had created for ourselves a dilemma when it came to being able to purchase genetically fine stock from other breeders, but we eventually developed a process to determine how to increase the probability that we were purchasing truly genetically fine alpacas.

Although it is still a breath holding moment when reading the fleece statistics of newly purchased alpacas after their first year at Oak Grove.

Staple Len : 105.0 mm
Min Mic : 16.8 mic
Max Mic : 21.7 mic
Finest Point From Tip : 30.0 mm
Fibre Ends : 1.4 mic



To date our attempts at resurrection of the finest of alpaca fibre has resulted in two and three year old alpacas exhibiting microns in the 13 - 14 micron range, and many in our herd are around or under 20 micron by 5th fleece with low standard deviation (SD).

We recognised that having a single first ultrafine fleece is not enough and we aim to keep all our herd as close to 20 micron or under by 5 years old with SD's under 4.0, as staying fine is more important than a fine first fleece that then blows out to 24+ micron by 5 years old. Longevity in staying fine is a critical element in our breeding program and blow out in micron is one of the alpacas traits we don't admire, those that can stay fine for longer are the sort of alpacas our industry needs to cultivate if we are ever to make any decent return on our fibre.

Obstacles To Overcome

As a breeder of the finest of fibre there are difficulties to overcome and one of those can be the very industry we are part of. This is nowhere more evident than in the show system, especially in the fleece classes where the criteria for point scoring is highly biased against stay fine ultrafine alpacas.

As an example if I entered my 32 month old fleece of 14.6 micron into the appropriate fleece class of 30 - 48 mths of age, the minimum micron to achieve the full 15 points for fineness only goes down to 18.0 micron. Add to this the weight point score that does not take into account that the finer the micron the less a fibre weighs, means my 1.3kg of 14.6 micron fleece gets just 4 points for weight. This means that I can't gain more points for fineness than a 18.0 micron fleece, yet that fleece will be heavier and gain more points for weight, all other factors being equal between the two fleeces, the courser fleece will always win. Is this the future for alpaca fibre we want to promote? Surely approaching what is now nearly a decade after the record breaking ultrafine bale project we should be seeing enough advances in finer alpaca fibre for the fleece judging to reflect this progress? The absence of many of these cutting edge fleeces in shows is not a reflection of their non existence, but a reflection of the breeders recognition that showing them would be doing so at a distinct disadvantage.

I have pushed for several years by speaking with judges and those involved with judging about lowering the micron in all classes to allow these cutting edge alpacas to get a fair showing, and this has been slowly improving, but still has a long way to go if the showing side of our industry is going to be a true reflection of the possibilities in alpaca fibre. I have also been promoting the concept of a fleece micron to weight matrix chart for over 5 years that takes into account the differences in fibre weight in relation to micron, to better address the scientifically proven fact that two fibres of different micron have different weights, and the weight difference is extreme when comparing 14 micron to 20 micron!

We also have the issue with many judges not having any great experience of these very very fine fleeces, which can look different and often have less crimp amplitude, but a high crimp frequency, some find it hard to accurately assess the true micron, this is why fleece testing wherever possible should be implemented.

I would like to see in major shows at the very least, a class for ultrafine fleeces, so they can be fairly assessed against other cutting edge fleeces and be given due credit without losing out to a system that inadequately acknowledges their very existence. Micron classes in the wool industry are commonplace, yet we still have basic age classes where a 13 micron fleece could be up against a 23 micron fleece, they are chalk and cheese. We need to do better.

Why is this industry still promoting and paying huge amounts of money for alpacas whose 4th or 5th fleeces are already in the mid 20's with SD's hitting 5.0+, when it is clear they do not have the sort of fleece that can provide a decent return to the breeder in our economy? Peru struggles to produce any quantity of sub 20 micron fleece, but has the mid 20 something micron and over fleece market sewn up, we can never compete with their low wages so why are we breeding more mediocre micron fleeces? This just doesn't make sense. There may be a market for this fibre but it's not a good one for the breeder. Surely a focus on

producing a fibre that could command even half of that paid for vicuna would provide Australian alpaca breeders with a viable income source, and a niche market that the competition would find hard to compete with?

Alpacas live for 20 years or more. Why are we producing alpacas with fibre that in many instances by five years old is only making a pittance per kilo, when we should be looking to breed alpacas whose fibre has a longevity of high value for at the very least half it's natural life span?

Maybe you feel the same way?

The Beyond Ultrafine Project

So to this end I have started a project to bring together all breeders of quality cutting edge ultrafine and beyond fibre to unite to produce the quantity needed to make an impact.

I invite anyone with fibre that has mid side tested at 16.0 micron and under with an SD under 4.0, length between 75 - 115mm produced on healthy well fed alpacas to contact me with the skirted weight of fibre they have. I will keep a database of who has what, and when we reach a critical mass of 100kg we will proceed with the next step of collecting and grid testing the fibre to ensure it meets the criteria.

Fibre testing is the only way to ensure we get the sort of high quality bale the top end of the market demands, hand classing is not anywhere near accurate enough.

Leading up to this time I will actively seek via already established contacts in the ultrafine merino industry to get the word out, that the Incan alpaca has returned, but it's resurrection has occurred not in the 'new world' of South America, but in the last of the great habitable continents to be discovered, the newest world of all, the Great Southern Land of Australia.

This is not a fibre revolution, but a fibre resurrection!

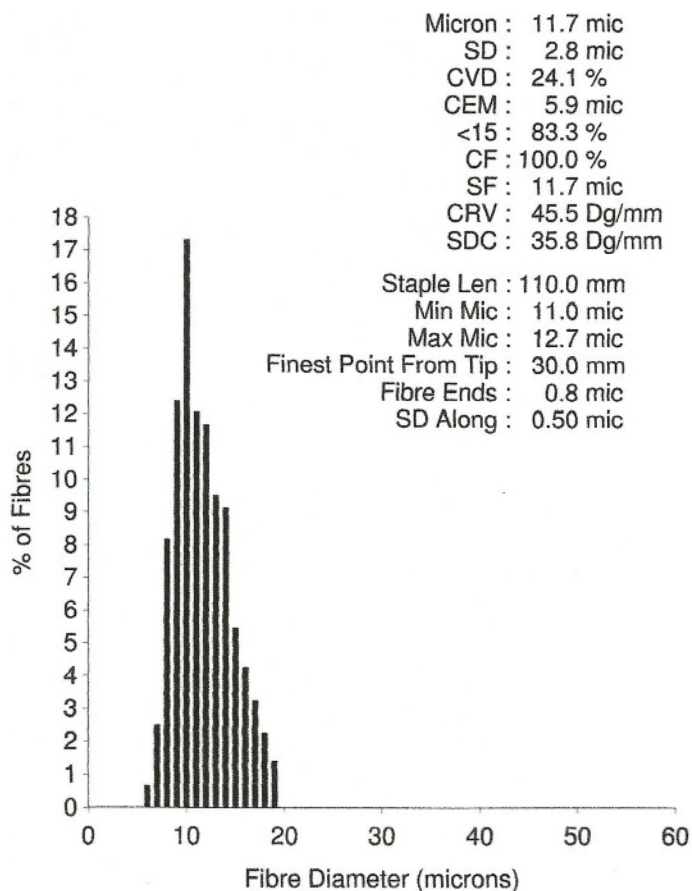
If you are interested in the Beyond Ultrafine Project or want to know more about breeding the finest of alpaca fibre, you can contact Julie McClen via the Oak Grove Alpacas website www.oakgrove.com.au or email info@oakgrove.com.au

* DNA studies, published in 2001 by Kadwell, M., M. Fernandez, HF Stanley, R. Baldi, J. C. Wheeler, and M.W. R. Rosadio Bruford.



Champion Fleece - 4yr old breeding female 19.1 Micron

Is a histogram like this in your studs future?



Editors Note:

The above comments are those of the author and not necessarily those of the publisher. Letters to the editor are welcomed on this topic.

AAA Showing and Judging Panel would like to make the following comment : "At a Showing and Judging Reference Panel meeting at the end of 2014, there was substantial discussion surrounding a review of the current Fleece Showing Scorecards, particularly in the areas of scoring for micron and fleece weight, for both suri and huacaya. To further the discussion and to take account of submissions already received on this subject, a Working Party has been formed to investigate, analyse actual weights and fleece test results from our major shows and make recommendations for the future. It was also agreed at the meeting to proceed with a trial series of additional huacaya fleece prizes for the 2015 National Show; to be awarded by commercial micron groupings..