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The official publication of the Australian Alpaca Association Inc.

ISSUE 50 • WINTER 2006



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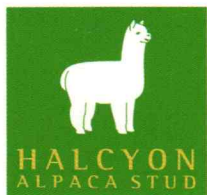
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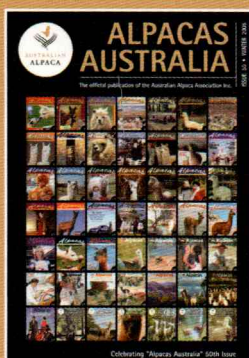


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Ph. 03 5962 1319 Fax. 03 5962 1046



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COVER

Alpacas Australia magazine celebrates its 50th issue

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Unit 2, 613 Whitehorse Road

Mitcham, Victoria 3132 Australia

(PO Box 1076, Mitcham North, Victoria 3132)

Telephone +61 (0)3 9873 7700 Fax +61 (0)3 9873 7711

E-mail alpaca@alpaca.asn.au Internet www.alpaca.asn.au

EDITORIAL AND ADVERTISING

Sandra Wright, Australian Alpaca Association Inc.

Unit 2, 613 Whitehorse Road

Mitcham, Victoria 3132 Australia

(PO Box 1076, Mitcham North, Victoria 3132)

Telephone +61 (0)3 9873 7700 Fax +61 (0)3 9873 7711

E-mail sandra@alpaca.asn.au Internet www.alpaca.asn.au

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A Message from the President

This issue of the magazine has been published just in time for our national conference in Adelaide. Held every two years the conference gives our members in particular, as well as the general public, the opportunity to catch up with latest industry developments.

Since our last conference at Hobart in 2004 there have been many developments, not least in the marketing of our product and the increased awareness of alpaca in the broader populace. In fact our Australian Alpaca Association Inc. (AAA) member numbers have increased dramatically in that time.

Recently Australian Alpaca Fleece Limited (AAFL) have made announcements about the new markets they have developed and the exciting prospect of Australian alpaca fleece being processed into garments etc. in Peru. As well, Australian Alpaca finished product continues to gain export sales to Asia and Europe. Whilst still in small quantities the sales are as a result of good marketing which has been assisted in part by the AAA in conjunction with McGregors International, our marketing team.

With the quality of alpaca breeding being presented for judging at our major shows this past year there is ample opportunity to breed alpacas of good fleece characteristics and commercial acceptability. Even strong fleece is wanted by AAFL for processing into quilts and doonas.

Many alpacas are now being marketed at quite reasonable prices both at auction and privately which offers the opportunity for new owners to use top genetics at prices they can afford. The headline grabbing prices for stock at our elite auctions are paid by serious stud breeders who understand the quality being offered. Such prices should not deter new entrants to the industry from shopping around because there is good quality stock available and plenty of reputable owners to assist new entrants with advice.

A decision to purchase alpacas should be made with as much information as possible and it is readily available at regional events and displays. Prospective alpaca owners are encouraged to do their homework and get the best value for their money.

A highlight of the recent AAA Inc. Ordinary General Meeting was the presentation of Life Membership to a special Association member, Dr Richard Dixon. Congratulations to Richard, a well deserved recognition for a very special person. Details of Richard's veterinary career and his extraordinary contribution to the Australian alpaca industry have been penned by National Committee member, Bob Richardson and appear on page 6. ■

Kerry Dwyer, President



Dr Richard Dixon (right) with Kerry Dwyer, AAA Inc. President

Photo: Dinah Fisher, Grey Leaves Alpacas, NSW

Alpacas Australia celebrates 50 issues

The Australian Alpaca Association Inc. is proud to present the 50th issue of its flagship publication, *Alpacas Australia*. The magazine was first published in 1992 when the Australian alpaca industry was in its formative years and has grown, along with the industry, into the glossy journal of 64 pages that readers now enjoy.

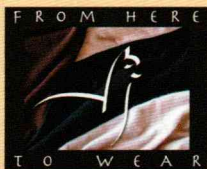
Alpacas Australia would like to take this opportunity to acknowledge and thank all those people who have supported and contributed to the magazine over the years with advertising, articles and photographs, especially those for the very popular Paca Pics feature.

A catalogue of articles that have been published in *Alpacas Australia* since inception is available to view on the Association's web site at: www.alpaca.asn.au The catalogue will be a useful tool for researchers and AAA Inc. members. A visit to the web page may provide some nostalgic moments for long-standing members and hopefully they will still have their early editions to refer to the full articles to take that trip down memory lane. Some back issues are still available to purchase from the AAA Inc. National Office however as some stocks are depleted please contact the office (03 9873 7700) to ascertain availability.

Briefly Speaking

**AAA Inc. National Conference
Adelaide Convention Centre,
18-20 August 2006.**

Proceedings from the Conference will be available to purchase from the AAA Inc. National Office after 28 August 2006.



Alpaca National Conference 2006 Adelaide

www.alpaca.asn.au

A vital source of information on alpaca events, alpacas for sale, latest industry developments and much more! The AAA web site is vibrant and dynamic and is an important communication link for AAA members and non-members alike.

From the Editor

The popular feature, *My Shed...* continues on page 24. Also in this issue we begin a new series for breeders to share their experiences in another important aspect of alpaca management in *My Alpaca Transport Vehicle...* on page 28.

Please send your stories and ideas for other articles ... we'd love to hear from you.

Have you moved?

Please remember to notify the AAA National Office of address changes, including telephone and fax numbers if applicable.

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**AAFL trademarks the
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AAFL has been selling alpaca fleece products through strategic partners in China for many years and has recently been successful in trademarking the AlpacaMark in that country. China was identified by AAFL as a large market that could potentially offer a wide range of opportunities given their high propensity to purchase luxury goods and proximity to Australia. "The AlpacaMark is becoming a highly sought after commodity and needs to be protected," said Michael Talbot, Managing Director, AAFL. "We need to ensure the Australian AlpacaMark is respected worldwide and remains a symbol of the finest alpaca in the world, not only in micron but also in style and character," he said.

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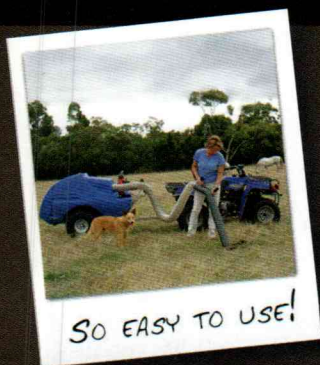


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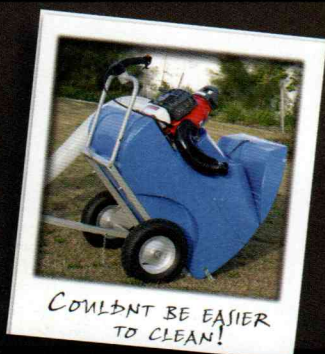


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Dr Richard Dixon: Honorary Life Membership of the AAA

INDUSTRY ARTICLE by **Bob Richardson** > AAA National Committee

Dr Richard Dixon was elected as an Honorary Life Member at the AAA Inc. Ordinary General Meeting on 4 June 2006.

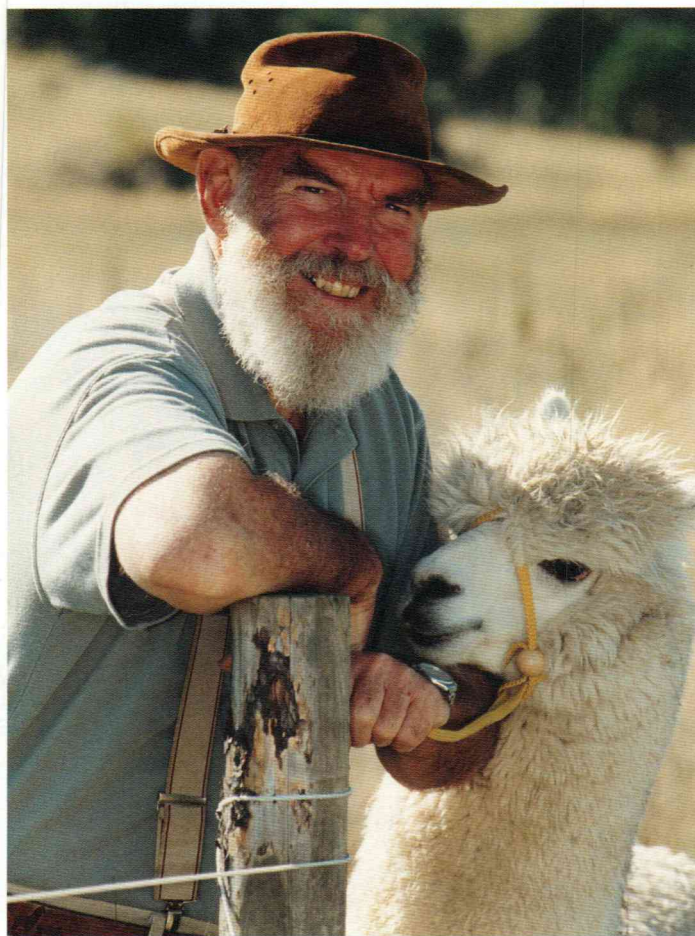


Photo: Animal Health Australia

Richard graduated from the University of Sydney Veterinary Faculty in 1959, and after completing a year as a house surgeon there he was appointed as a Temporary Lecturer in Veterinary Surgery in the Faculty until 1964. He then travelled to Colorado, USA to complete a Masters degree in Radiation and Radiation Biology at Colorado State University. While there the American College of Veterinary Radiologists was formed, and Richard passed the examination to become an inaugural member.

In 1966 Richard was appointed for a two year term as a Senior Lecturer in the University of Melbourne Veterinary Faculty, and following that he returned to Sydney University as a Senior Lecturer in the Faculty of Veterinary Science. He remained there, becoming well known to nearly all current NSW veterinarians and many others who trained

there, until 1975 when he left to start his own private practice. This was firstly in the Sydney suburb of Pymble, then at Concord West, where he practised as a Specialist Veterinary Radiologist until his retirement in 1997.

Richard and Judith were married in 1961, and James and Kirsty, two of their four children, are currently also active supporters of the Australian alpaca industry: James has an active alpaca shearing business in NSW and has recently also been shearing alpacas in the United Kingdom, while Kirsty is working for the Kosciuszko National Park and is currently assisting with the AAA Inc. Q-Alpaca Program administration.

In 1997 Richard and Judith moved to a picturesque semi-retirement property on the outskirts of Berridale, near Cooma, NSW, where they have a small herd of much-loved alpacas.

From the outset of his involvement with alpacas Richard realised the overall small depth of local knowledge about many aspects of alpaca health and nutrition. From the mid 1990s there was much concern among AAA Inc. members about an outbreak of Johnes Disease.

A group of AAA Inc. members led by Geoff Hargreaves was working with the Department of Primary Industries, Victoria on a form of control, and with the help of Richard and other members of the Camelid Veterinary Association, the AAA Inc. negotiated with Animal Health Australia (AHA) to implement the highly acclaimed JD Alpaca Market Assurance Program (AlpacaMAP). Thanks to the rigorous monitoring conducted through this program, the disease outbreak was quickly contained and prevented from becoming a major health problem for the emerging industry.

During this period Richard addressed many Regional and national AAA Inc. meetings, and his regular articles on 'VETOPICS' in his Regional Newsletter were widely reproduced in other AAA periodicals. At the same time Richard gave very freely of his time to respond to many unusual alpaca health questions on an individual basis.

There are quite a few members who are grateful for Richard's advice on apparently intractable health issues, not least for his demonstrated skill at acupuncture on numerous occasions.

Richard's extensive contacts with a wide range of Commonwealth and State veterinary and animal health authorities, and his acquaintance with many individuals from his university days, has been of great benefit to the AAA Inc. in many ways too numerous to mention here. However two recent initiatives need to be highlighted.

Richard realised that with no further established cases of Johnes Disease in Australian alpacas since 1996, the high laboratory testing costs periodically required under the AlpacaMAP were becoming a burden to many studs. So, encouraged by the AAA Inc. National Committee, he developed a health monitoring project to be offered to owners as an alternative to the AlpacaMAP.

The Q-Alpaca Program now in full operation is both easier to conduct and cheaper for many alpaca owners, while also offering other advantages for alpaca health monitoring for several other diseases. This scheme, which required an enormous personal effort by Richard to obtain the necessary approvals Australia-wide through Animal Health Australia, is currently unique because it is the first such scheme in Australia that is wholly administered by a single industry body.

At present, Richard is the Administrator of Q-Alpaca, with support from the AAA Inc. Office.

Accompanying the development of Q-Alpaca, and with strong support from AAA Inc. National Committee members, Richard has energetically pursued full membership by the AAA Inc. of Animal Health Australia. This is the peak body of representatives of Commonwealth and State health authorities, together with all recognised commercial animal breed organisations operating nationally. It has many functions, but perhaps the most important is a key liaison role in the event of an outbreak of a notifiable Emergency Animal Disease. Should this occur, AHA representatives have a critical role in protecting the interests of their respective industries.

Richard was delighted to be advised by the AAA Inc. President that his efforts had been reflected in full AHA membership being formally approved for the AAA Inc. as the 14th Australian industry member on 3 June 2006.

For many years Richard has been strongly supported by his charming wife, Judith and their children. Richard is currently battling some quite serious health problems, and although he is making good progress he still has some hurdles to overcome. However he is buoyed by the strong support of his family and their great many friends throughout the Association, as well as in many other unrelated fields. ■

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Alpaca Emergency Care and First Aid

ANIMAL HEALTH AND WELFARE ARTICLE by **Elizabeth Garner-Paulin** > Tarraganda Lodge Alpaca, NSW
> Chairperson, AAA Inc. Animal Health, Husbandry and Welfare Sub-committee

Rarely is there a more lonely or helpless experience for an alpaca breeder than at the time of an incident, accident or sudden illness of an animal. The notion of helplessness though can be relieved in most instances by the application of first aid prior to the much anticipated return call or arrival of the vet.

Training in first aid is invaluable with many of the principles of first aid as taught by the likes of St John Ambulance and Red Cross being applicable when dealing with trauma or injury of alpaca. The most important initial factor in any of these situations, including sudden illness; is the confidence, composure and preparedness of the care-giver. The ability to convey confidence will assist immeasurably in keeping the alpaca calm, thus avoiding further exacerbation of the problem; and a breeder's confidence will come with the knowledge of basic first aid principles and the effort of practice and preparation.

Preparation in advance of an emergency situation

Prepare your animals as well as yourself for an emergency situation. The ability to catch, halter, tie and lead an alpaca will be crucial in an emergency, which can often arise when there is no assistance available. Alpaca should be trained to enter a small catch pen for capture and this is easily achieved by taking the time to regularly bring your animals into a catch pen or confined area just for food. Alpaca are clued critters that all too quickly learn when catch pens are only used for unsavoury events and they will master the art of avoidance or submit themselves to additional stress at the most inopportune time, such as an emergency.

Whilst tying an alpaca to a fence is not recommended there are obvious instances where this will be required. Alpaca should never be left unattended in these circumstances. Learn to tie the quick-release knot for securing a lead rope to a fence or post (*see below*).

QUICK RELEASE KNOT

To start: Thread the loose end of lead around post in an anticlockwise direction so the standing end (tied to alpaca) is in your left hand and free end in your right.



1. Create a loop of the lead in your right hand with the end section of the lead placed underneath the crossover point.



2. Place loop underneath the standing end of lead and hold with your left hand.



3. With your right hand, gather another loop from the loose end of lead.



4. Thread the loop in your right hand through the loop in your left hand then pull the standing end of lead to tighten knot. To release the knot, pull firmly on the loose end of the lead.

Immunisation should be kept up to date, particularly 5in1 vaccination to provide protection against Tetanus. Basic first aid without vet assistance may be all that is required for a small wound; however, contamination of that wound may leave the alpaca vulnerable to Tetanus if the alpaca is not immunised.

Know your Accepted Averages

Temperature: 37.0°C to 39.0°C.

An exception relates to the ambient temperature where it would be expected that alpaca can be 1°C cooler in the mornings than early evenings.

Respiration: 20 to 30 breaths per minute.

The breathing rate may be observed from a distance by watching the abdomen rise and fall with each breath. On approaching the alpaca, the respiration rate may increase rapidly which could make diagnosis difficult. A second method is looking at the nose for nasal flare. Thirdly, a stethoscope placed on the middle neck area or side of chest will reveal airway sounds.

Heartbeat: 80 to 120 bpm (beats per minute)

Unlike humans, the carotid artery in the neck of an alpaca is not accessible. The only superficial artery available for assessing heartbeat in alpaca is on the inside of the hind leg, level with the stifle. Alternatively, listen for the heartbeat by placing your ear or stethoscope over the lower chest wall just above the elbow.

First Aid Kit

Many commercial first aid kits are not only expensive but can often contain items more appropriate for a field hospital. Notwithstanding the expense; in the hands of an untrained health care professional, this can often be detrimental when rendering first aid.



Recommended items for a first-aid kit:

- > Emergency phone numbers (vet, neighbour, nearest & dearest)
- > Thermometer
- > Small pair of pliers
- > Tweezers
- > Pocket knife
- > Surgical scissors
- > Saline – large bag available from Veterinarians and most Pharmacies
- > 20ml syringe for flushing wounds
- > Vetrap bandage
- > Sterile 4x4 inch gauze sponges (for packing wounds after cleansing)
- > Combine Absorbent Roll (aka Combine Dressing)
- > Betadine or Chlorhexidine Liquid (with dilution directions if applicable)
- > Betadine ointment
- > Centrigen Spray (aka “purple spray”). Only for wounds not requiring stitching or further attention by the vet.
- > Latex gloves
- > Small plastic bowl or bucket
- > Small torch with spare batteries
- > Spare halter and lead

Other items may be included depending upon the training and experience of those using the kit. A plastic bucket with snap top lid or tool box can be used for storage. Labelled clearly with red permanent marker, the kit should be left in a conspicuous place and protected from excessive heat, cold and moisture. A regular check of supplies to ensure the kit has not been looted is advisable.

Emergency Situations

There are many situations that will require first-aid, some of which include; lacerations, contusions, abrasions, fractures, blows to the head or spine, entrapment in fences, ditches and streams, hyperthermia and hypothermia and natural disasters such as bushfire and flood.

It goes without saying that an alpaca that is unconscious, not breathing or bleeding severely is an emergency situation.

Cardinal Rules for administering first aid to animals

1. Establish an airway and make certain the victim is breathing.
2. Control haemorrhage.
3. Stabilise fractures and restrict movement to prevent further damage.
4. Protect exposed tissue (lacerations, abrasions and burns).
5. Position an unconscious alpaca on its right side with the head and neck slightly elevated and the muzzle down.

Whilst animals may be affected by shock it is not a common occurrence as it is in humans. Animals will not faint following an injury but may lose consciousness as a result of a blow to the head or excessive haemorrhage.

For wounds that require stitching it is recommended not to apply antiseptic before veterinary treatment; however, if it is absolutely necessary to do so, only use water based antiseptics.

Severe bleeding

Alpaca have a blood volume of 7-8.6% of their body weight; therefore a 70kg alpaca would have a blood volume of approximately 5-6 litres. Approximately 25% or in this case about 1.5 litres of blood may be lost without risking the life of the alpaca.

Given that not even half a litre of blood sprayed around a stall would be reminiscent of a slasher film, it is perfectly understandable that the actual blood loss may be overestimated and the owner reduced to a state of horror. With that said however, bleeding of any volume must be controlled and evaluated using basic first aid procedures.

Whilst free flowing blood is obvious, bleeding may also be internal and not visible. If bleeding into tissue occurs it may cause generalised swelling of the affected area or be in a pocket i.e. haematoma. Blows to the surface of the body may rupture an organ or a blood vessel causing bleeding into the body cavity or muscle.

Hyperthermia – heat stress

Early recognition and action will result in successful resolution of heat stress. Cooling may be accomplished by spraying cold water on the belly and between the fore and hind legs. Parting the fleece down the backbone and allowing water to flow from the part, down the surface of the body is appropriate for an alpaca in cush position. ➤

Shade and breeze by way of a fan will enhance the cooling effect. If water is in short supply, standing the alpaca in buckets of water can still be effective.

In extreme cases of hyperthermia, rapid cooling may be obtained with a cold water enema. The purpose of the cold water enema is to flow cold water into the rectum allowing that water to be warmed by the body and evacuated, then replaced by more cold water. Extreme care must be taken when inserting the tube, which must not be placed more than 3-4 inches into the rectum. Damage to the lining of the rectum, or worse, puncture of the bowel could ensue if the tube is inserted any deeper. Neither should water be forced into the rectum under pressure or held in the rectum against normal evacuation response. Once this process has begun it will no longer be possible to monitor the body temperature via the rectum; with females however the thermometer may be inserted into the vulva.

Hypothermia

In the case of hypothermia an ounce of prevention is far better than the cure. Provision of shelter from wind and rain with abundant lucerne hay can suffice to protect alpaca from hypothermia in severe weather. The importance of lucerne hay in these situations cannot be understated as the digestion process will provide additional body heat. A cria coat and shelter will protect the young.

In bad weather, the most vulnerable time for alpaca is just off shears with Suris particularly prone to hypothermia in severe weather at any time of year. It is wise to always consider Suris as having just been shorn.

With weather being notoriously difficult to predict, there can be occasion where animals may be caught by a freak severe weather event. As most thermometers don't read temperatures lower than 33°C an animal with this reading is in a critical condition.

Move the animal immediately into a warm environment and incubate with warm blankets. Electrolytes and glucose warmed to 35°C-37°C and administered intravenously are most useful, however if IV is unavailable oral administration is the next best option. Other warmed carbohydrate syrups (e.g. honey, maple syrup) are also beneficial both orally or inserted into the rectum as Camelids can absorb glucose from the rectum provided there is adequate blood flow.

Wrapping a cria in bubble wrap may be all that is required in some instances, however in severe situations they may be placed into a large plastic bag with the head sticking out then immersed into a warm bath of approximately 42°C.

In all cases, care must be taken as warming an alpaca that is critically cold too quickly can cause as much harm as the hypothermia. This is due to the altered blood flow and release of potassium and organic acids that have built up during the period of poor circulation and this may cause the heart to stop.

By and large and with good fortune, the extreme emergencies as outlined above may never visit the majority of alpaca studs. There are however other signs that will alert owners to a problem or potential situation.

Know your animals and what constitutes their normal behaviour. Establishing a routine of daily observation will assist owners in detecting an illness before it becomes an emergency.

Key indicators requiring immediate action

1. Body temperature below 36°C or above 39°C.
2. Refusal or inability to eat for more than 24 hours.
3. Rapid, laboured, noisy breathing. Breathing with mouth open (with the exception of immediately after a spitting session).
4. Swollen muzzle. As alpaca normally breathe through the nose, any obstruction of the nasal passages could potentially suffocate the alpaca.
5. Discharge from one or both eyes or reluctance or inability to open the eyelids.
6. Straining at the poo pile without producing a foetus, urine or faeces.
7. Frequent voiding of small amounts of urine or faeces.
8. Failure to void urine or faeces for more than 12 hours.
9. Symptoms of colic; groaning, grinding of teeth, up and down frequently, refusal to rise, kicking at belly, assuming peculiar stance, arching the back, straining, tense abdomen and frenzied behaviour. It should be noted that some of these signs may be transient normal behaviour.
10. Lameness.
11. Incoordination (ataxia).
12. Paralysis.
13. Seizures.
14. Rectal or vaginal prolapse.
15. Extreme weight loss.
16. Severe bleeding.

With the small amount of time and effort required to learn the basic principles of first aid along with simple preparation, alpaca owners can act with confidence when called upon to handle an emergency situation.

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The Alpaca Industry in Mora, New Mexico gets a little help from...

Matthew McAninly > Alpaca fleece classer, formerly with Australian Alpaca Fleece Ltd.

Matthew writes,

"Late in 2005 I was approached by the Alpaca Co-operative of North America (AFCNA) to develop classing guidelines and fibre handling processes for their recently relocated fibre collection centre. This involved travelling to Mora, New Mexico in January 2006 to train AFCNA personnel in classing alpaca fibre.

The AFCNA was established in 1998; currently there are over 1,000 members. The Co-op requires all members to pay a joining fee of \$250.00 US dollars; each year they are required to send part, or the entire clip to be sorted. The fibre is pooled and processed into finished products. Depending on the quality of fibre that each member sends, they are credited a percentage of the finished product, which they then buy back and sell on through their own various outlets. The aim of the AFCNA is to produce 100% alpaca products, from 100% North American alpaca fibre completely processed in North America. This has placed both logistical and financial pressures on AFCNA with considerable debts amounting over past years.

Previously the AFCNA clip was sorted by a private wool and mohair company in Texas. This agreement ended in 2005 and with two years of fleece still to be sorted AFCNA had to find an organisation willing and able to sort their 20-25 tonne of fleece (all in boxes – most weighing only 5-6kg and not in any particular order). They found this organization in the form of Tapetes de lana.

Tapetes de lana (TDL) was established in 1998 by Carla Gomez. It is a non-profit organisation set up to develop skills and employment opportunities through cottage industry in one of the poorest parts of Northern America. Like many rural communities across the world, Mora is suffering from fewer and fewer job opportunities and rising unemployment. The majority of Mora's population comes from Spanish/Mexican ancestry, with Spanish as commonly spoken as English.

Most employees of Tapetes de lana are trained to hand weave on looms; they produce rugs, blankets, scarves and many other products – all from natural fibres hand dyed using natural dyes. The finished products are sold from the shop where the weaving is done and also a retail outlet in Las Vegas (New Mexico).



Part of my role involved training a group of TDL staff in classing alpaca fibre. No-one in the group had any previous fibre classing experience so this meant starting with the basics – explaining microns, different colours, guard hairs, handle, etc. The role was even more challenging with some staff not speaking any English, and most things tending to run on 'Mexican time'.

About two years ago, with the assistance of a National Government rural industry grant, TDL purchased land and buildings on the main street of Mora with the intention to develop a fibre processing plant and with the aim to have fibre going from the raw state to finished products all under the same roof. Currently the project is nearing completion with all construction of buildings and setting up of machinery being done by employees of TDL and local labour. It has since incorporated the Taos Valley Wool Mill.

It is the hope of both AFCNA and TDL that this plant will allow some of the North American alpaca fibre to move from classing to finished product completely in-house, reducing costs and resulting in more competitively priced products. It is also a light at the end of the tunnel for the Mora community with many new jobs being created.

It is an interesting approach to developing a viable long-term fibre industry that AFCNA has taken. North America seems to be a place where many alpaca owners have little interest in developing the fibre side of the industry while the animal prices are so high.

Although a challenging task it was a very rewarding experience personally and extremely pleasing to see the TDL staff members develop skills that only weeks earlier they did not possess. Also, as the colours and grades of fibre I was responsible for setting up came together and appeared as though they would produce good quantities of usable fibre, it was very encouraging. I hope these lines of fibre will assist AFCNA in producing top quality North American alpaca products in the future.

This experience along with my time at AAFL will be extremely valuable in my next role as Manager of Millbrook Alpacas in Buckinghamshire, England."

For those interested the AFCNA web site is www.afcna.com and for more info on Tapetes de lana visit www.tapetesdelana.com ■

13th AAA Inc. National Show and Sale

A CELEBRATION OF THE BEST OF AUSTRALIAN ALPACA

This year's prestigious event on the Australian alpaca industry calendar will be held at Exhibition Park in Canberra on Friday 27 October to Sunday 29 October.

The Show component of the event will incorporate Alpaca and Fleece judging as well as the popular Craft Competition and, following on from its inaugural success last year, the Art and Photography section will again be keenly contested.

Judges for this year will be:

Alpacas: Dianne Condon and Bill Robbins

Fleece: Lyn Dickson

Craft: Laraine Callinen

Art and Photography: Irene Garner

For more information about the event contact the Convenor, Paul Haslin

Tel: 02 4878 9429

e-mail: elysion@bigpond.net.au

To help you prepare your animals and fleeces for the Show Alpaca Australia brings you some tips from this year's Judges.

But first, Julianne Gelber, an experienced and highly successful exhibitor offers some handy hints to help you be well-organised for the journey to the Show where you will arrive safely, looking forward to a fun time!

Show Readiness

by **Julianne Gelber** > Bumble Hill Alpacas, NSW

Showing is a powerful promotional vehicle for every alpaca breeder, large or small. It is great for networking, comparing your animals, sourcing new genetics and information and it can be a lot of fun.

But showing can be a fraught experience if you and your animals are ill-prepared. Remember, your showing objective should be that you and your animals step out of your transport at the show venue looking relaxed and immaculate and that is the way you present throughout the entire show.

How do you do it?

Talk with the larger breeders or smaller breeders whose presentation in and out of the ring you particularly admire; ask them for advice (wheedle some of their 'trade secrets' from them – and then let me know!) and put together your own show readiness strategy.

In the meantime, here is what we do at Bumble Hill. Most times it works and works well for us. I have grown to enjoy showing; presenting my animals for my peers to judge, meeting up with old friends, travelling to venues in towns and cities not hitherto visited. And of course I love winning ribbons!

Planning is of paramount importance

- > Select your animals well in advance of each show you propose to enter. Seriously consider the nature of the animal. Some animals, despite their 'magnificence', do not have a showing disposition.
- > Do not enter more animals than you can comfortably accommodate in your transport. Consider the gender and size of your animals – many a potential show winner has stepped out of the float covered in green, fleece flattened, urine or manure stained etc. Also don't take more animals than you can easily handle at the show, given your stud's manpower resources.
- > Check that the animal has its IAR eartag inserted.
- > Fit each animal with a dedicated halter.
- > Ensure that you have plenty of time to halter-train novices to the ring. We try to commence halter-training at least three weeks before the show date, aiming to have the animals responding well by the end of the second week. This leaves the last week for grooming – nail cutting, fleece clean-out, removing 'dags' and general tidying up, and some easy walks and cuddles.



Remember, most of us live an Arcadian idyll and it is a shock for our beloved alpacas to be thrust into (a) transport, (b) a tense, noisy show environment and (c) a two metre square pen with dry feed, so...

- > Expose your animals to people and noise pre-show. Have the radio at full volume, play rock music, invite friends/ the local school to handle the trainee animals.
- > Do a couple of trial runs loading into and out of the transport and a short trip to a local park. Walk the animals in the park on grass, on bitumen, on cement.
- > Pen your animals with their show pen-mates for a couple of hours at a time in the last week (a makeshift pen will do).
- > Introduce your animals to the feed and pails/waterers they will have in the show pen.

We have a standard day-before-the-show treatment for the show team – Protexin (a probiotic) to help their gut cope with the dry feed and VAM (vitamins and minerals) to counteract the effects of stress.



So, the animals are calm and well prepared.
What about the humans?

- > Pack the day before. Make a list of everything you will need for the show day – dress for the ring, stud promotional material (banner, brochures, sales list, brag book etc.), folding chair, feed, water and feed pails, rake, scoop for manure etc. We always take a container of water and rope, just in case we have a breakdown (don't mean to alarm you, but in the best boy scout tradition...).
- > Try to have a good night's sleep before the show.
- > Always assume that it will take at least an hour longer to load and get to your destination than what your journey will actually take.
- > Once you are on the road, there is nothing you can do to hurry the arrival process. Use the journey as a time to relax and consider the day ahead.
- > Unless we are travelling in excess of six hours (four hours in summer), we find it better not to stop to water or feed the alpacas (or humans). We put biscuits of hay in the four corners of the float, but no water. For long hauls we walk the animals every six hours and offer them water.
- > On arrival at the show, check your entry points and locate your pens before unloading your animals.
- > Don't try to hurry the animals – they will be stiff and disorientated. Settle them with food and water in their pens, and then unload the rest of your kit.
- > Do attend the Exhibitors' meeting – you want to be well informed about the show.
- > Above all, be calm.

In the show ring

It is in the lap of the alpaca gods now. You have done all you can in preparation. Just give yourself plenty of time to get to the marshalling area, listen to what the marshalling stewards are saying, take a deep breath, tell your alpaca that he/she is magnificent and step forward once you have the nod from the judge. Never take your eyes off the ring steward whilst you are parading in the pen but once in line-up, settle yourself and your animal and try to be still and fully aware of your animal only. Good Luck.

Out of the show ring

Spend as much time as possible in/near the pens with your animals. This helps protect them from the 'enthusiastic' public and allows you to gauge their overall wellbeing, feed needs and to remove manure and generally keep the pen area tidy. You will also have the opportunity to talk with members of the public who are genuinely interested in alpacas and particularly your animals.

I wish you safe journeys, good times and success. ➤

Preparing show fleeces

by **Lyn Dickson** > Accredited AAA Inc. Judge

Showing your alpaca fleeces can be a lot of fun, as well as a great learning experience. It is easier on the pocket than showing your animals and if you are time poor (and these days who isn't?), it means that your farm can be represented at a show without you actually having to attend in person, perhaps even an interstate show or "The National".

Preparing show fleeces successfully has become something of an art form as the quality of the fleeces entered in the larger fleece shows improves each year. It is a skill that can be learnt by any exhibitor if they are prepared to spend the time and effort to understand the fleece judging score card, and then to carefully apply their eyes and hands to maximise the presentation of the fleece. Sometimes only half a point separates the best prize-winning fleeces.

If you have a fleece that you would like to enter in a show, then afford it every opportunity to do well by presenting it thoughtfully.

Obviously categories on the Score Card like Fineness, Lustre and Density are pre-determined by the individual fleece production traits of the alpaca. However you can enhance the positive exhibition of your fleece using good old-fashioned commonsense and by having a clear idea of the important commercial requirements for alpaca fleece to be visually uniform and clean with good length and style.

This year I have the honour of judging fleece at the AAA Inc. National Show in Canberra and have been invited to make some constructive comments in regard to preparing fleeces for showing. The following list is by no means exhaustive but relates to some of the most common matters that all judges see regularly at fleece shows. These comments apply equally to huacaya and suri fleeces.

Skirting your show fleeces

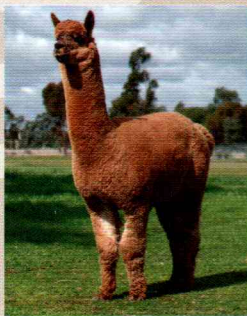
Skirting is the main area where I believe most exhibitors can make a significant difference in their fleece presentation. In my experience, the margins between receiving a prize or no prize, or a Champion and a Reserve Champion award often lie in the skirting. As a judge, I am always disappointed when presented with a quality fleece with good commercial traits that has been poorly skirted, and therefore doesn't score as well as others, when a small amount of extra attention may have found it amongst the prize winners.

Maximising the points available is the name of the game, and obtaining that optimum balance between Clean Fleece Weight and the trade-off points lost for other categories is crucial. Always bear in mind that the two categories bearing the highest marks on the Score Card are Fineness and Handle (20 points) and Clean Fleece Weight (20 points) for both huacaya and suri fleece.

Skirting too lightly – If you try to stack the points too heavily in favour of Weight (by leaving in some coarse edges, poorer quality or shorter fleece), you will inevitably lose points in other areas. So, while skirting too lightly might positively affect the score for Clean Fleece Weight,



Hinterland Cruz
Sire: Glenwood Top Gun
All grey genetics



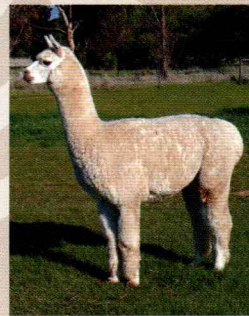
ILR NWA Luminosa
Peruvian Hemingway son



Benleigh Bravo
Sire: Purumbete Brigantine
Dam: Purumbete Sweet Freedom



Twilight Park Poetic Licence
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it will definitely detract points from the categories of Uniformity of Micron and Lack of Medullation, and almost certainly will have a negative effect on Handle, Uniformity of Length and Character and Style (crimp for huacaya fleeces and lock style for suris).

Skirting too heavily – This will negatively affect the points scored for Clean Fleece Weight. Many a beautiful fine fleece, scoring maximum points for fineness and handle has missed out on a prize due to over-zealous skirting and therefore lack of weight.

Impurities

This area only constitutes a total of five points, but believe me, there is nothing more jarring for a judge than to find pellets of faeces and urine stain in a show fleece. Judges understand that a small amount of Vegetable Matter is par for the course in alpaca fleece and will usually only deduct one point for light VM contamination, but faeces or urine stain is inexcusable! You'd be surprised to learn just how often it occurs.

Uniformity of Length

Shake the fleece carefully to eliminate any second cuts (short snippets of fleece that may occur during shearing). When faced with a line up of well-skirted beautiful fine, uniform fleeces, lacking guard hair, that are all going to score well, the judge has to look for ways to separate them. We can almost always find some second cuts if we look carefully. I am constantly amazed that so many exhibitors don't take the time to check their fleece for second-cuts – such an easy thing to eliminate.

ALPACA FLEECE JUDGING – HUACAYA

SHOW

ENTRY NO

EXHIBITOR'S NAME

ADDRESS

	MAX	POINTS
FINENESS AND HANDLE	20	
UNIFORMITY OF : micron	8	
length	7	
colour	5	
CHARACTER & STYLE: crimp	10	
staple type/density	5	
BRIGHTNESS (LUSTRE)	10	
LACK OF MEDULLATION	10	
IMPURITIES/STAIN/TIP DAMAGE	5	
CLEAN FLEECE WEIGHT	20	
TOTAL	100	

Other points to consider

Show fleeces have a limited lifespan for showing. I have often judged fleeces that I can see were once beautiful, but have become tired after too many outings. If you have a very good fleece that you think is capable of winning some prizes, keep it fresh by only showing at two or three shows.

Label and bag your fleeces for transport carefully and follow the instructions on the entry forms. The Fleece Stewards' job is an onerous one, and anything you can do to make the task easier will be very much appreciated.

Showing fleeces can be a very rewarding experience. Don't be disappointed if your entry is not as successful as you had hoped. Try to compare your fleece and its score with the winners and take the opportunity to learn more about your fleece and how you might improve the quality. Most judges are more than happy to discuss your entry with you if you have any questions after the show.

A great way to learn more about fleece showing is to volunteer to help as a steward at a fleece show. There's nothing like having a legitimate reason to get your hands on all those beautiful show fleeces.

If you haven't shown fleeces before and would like to become involved, team up with a more experienced breeder who can help you to get started and remember, showing should be fun. Perhaps I'll even see your fleeces at the National Show, so start planning and preparing now! ➤

ALPACA FLEECE JUDGING – SURI

SHOW

ENTRY NO

EXHIBITOR'S NAME

ADDRESS

	MAX	POINTS
FINENESS AND HANDLE	20	
UNIFORMITY OF : micron	8	
length	7	
colour	5	
CHARACTER & STYLE: lock style	10	
density	5	
LUSTRE	15	
LACK OF MEDULLATION	5	
IMPURITIES/STAIN/TIP DAMAGE	5	
CLEAN FLEECE WEIGHT	20	
TOTAL	100	

Showing Alpacas – A Judge's Perspective

by **Bill Robbins**, in collaboration with **Dianne Condon**
> Accredited AAA Inc. Judges

Presentation

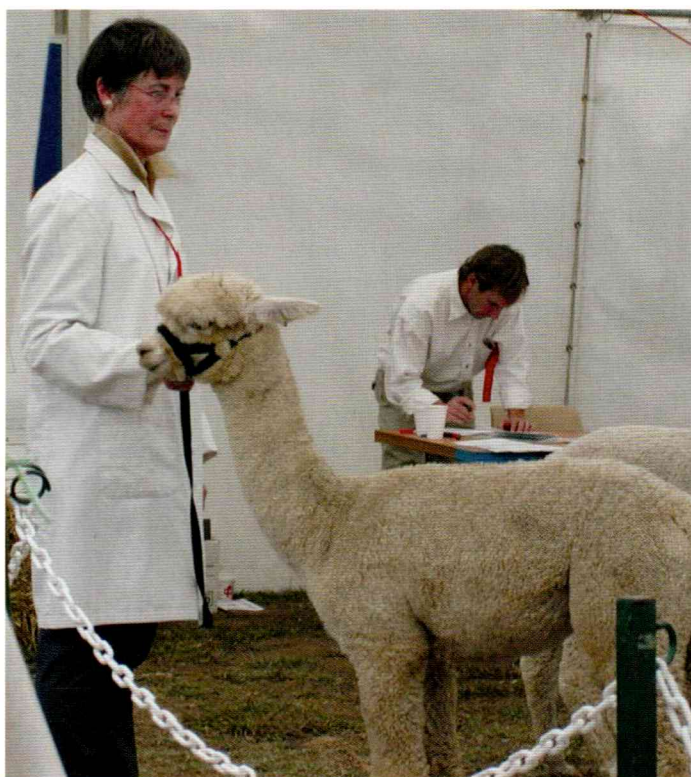
The alpaca, whether suri or huacaya, must first have an appealing appearance or presence; it must hold itself proudly and erect and have correct conformation. In other words, the body must be in proportion i.e. its neck two thirds the length of its body with the head well formed and pleasing to the eye. The fibre coverage must be complete from the tip of the pads to the tip of the nose without fibre growing across the muzzle.

The fleece needs to open to the skin without visible cotting. Huacaya fleece needs to be individually stapled exhibiting consistent crimping for the full length of the staple. The frequency of the crimping also has a bearing, with the fleece exhibiting more crimping per centimetre usually being the finest fleece. Density is also affected by the consistency and evenness of the staple definition. Brightness, soft handle, evenness of colour and lack of medullation also help determine the quality of the fleece. Suri fleece, on the other hand, should not be crimped but should hang in tight individual locks that move freely, independent of the body; the more locks or ringlets over the alpaca's body usually having a bearing on the fineness of the fleece. The locks should exhibit lustre and soft handle, once again with minimal medullation. Evenness of colour and overall fleece coverage are critical.



Paddock versus over-groomed fleece condition

Alpacas need to be well presented but not over-groomed. They should not have their fleeces blown or the crimp and staples destroyed in an effort to clean them up. They should be kept in a clean, dry environment if possible, to avoid dust and contamination, but preferably not continuously in a shed. Thus thought must be given to the paddocks the alpaca will be kept in prior to the show.



Behaviour

The ability of the exhibitor to handle their alpaca can have a bearing on how the alpaca performs. Alpacas should be able to parade and stand without too much agitation. Alpacas that will not stand or parade are not the 'complete' animal and technically could be penalized. I do not have a problem with alpacas that are nervous or agitated because of their surroundings, but I do have a problem with animals that won't stand at all, as they make it impossible to assess them properly.

Physical condition

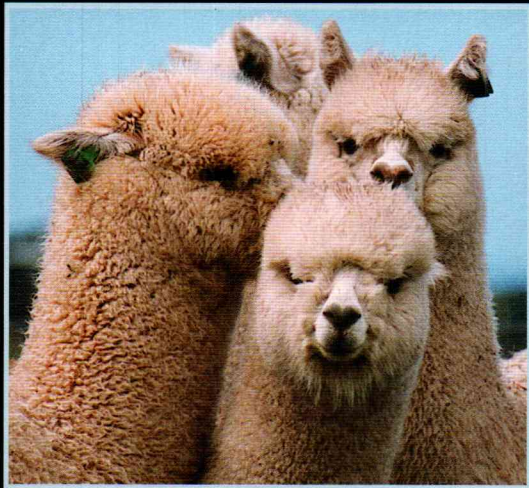
Alpacas that are being shown must be in good physical condition with a body score of approximately 3½ out of 5, because of the stress of showing. (A few years ago I talked to a cattle exhibitor at the Sydney Royal Show and he said that his bulls lost 80 kg over the time of the show). Animals cannot be shown at their best if they are in poor condition, as not only the conformation but the fleece is affected – lustre and handle in particular.

The physical size of an alpaca and its conformation must be appropriate for its age. Thought must be given to trace element deficiencies in the preparation of alpacas for shows as, for example, vitamin D in particular is critical in the skeletal development of the young, and in the maintenance of older alpacas. Alpacas will put available trace elements into their fleece first and their conformation will suffer.

Conclusion

Showing should be an enjoyable and educational experience for both the exhibitor and the alpaca. Expectations should not be too great so as to avoid disappointment. The show is a place where exhibitors can compare animals and owners can advertise their studs. Remember, the results are only one judge's opinion on one particular day. ■

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SURI CROSSES**

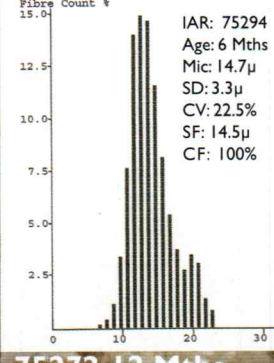
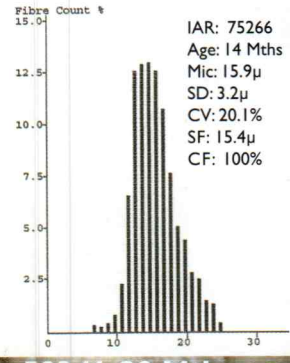
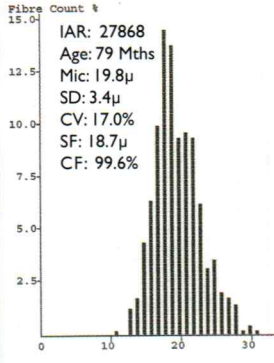
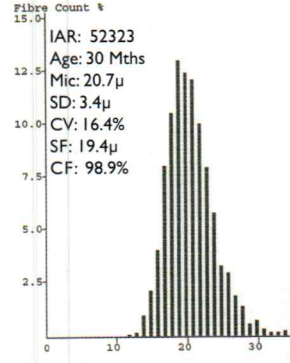
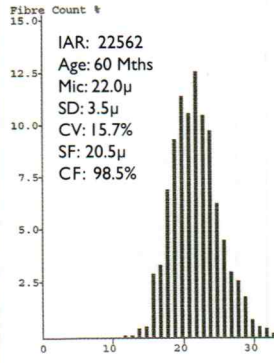
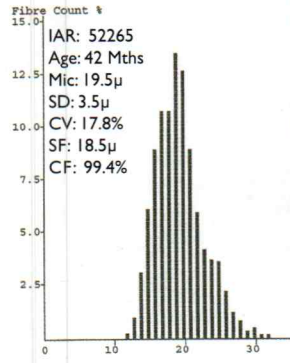
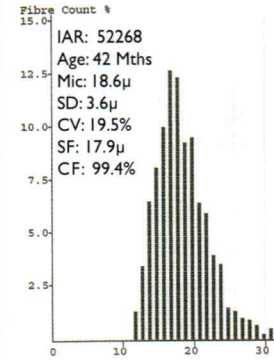
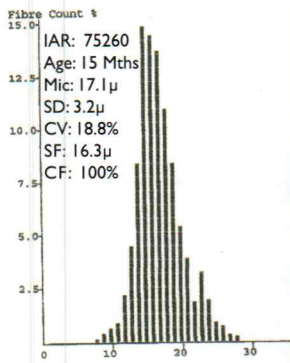
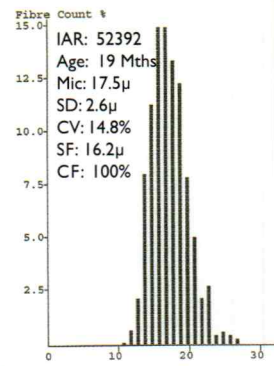
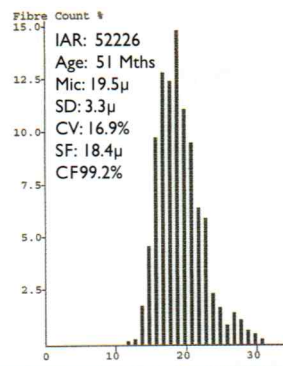
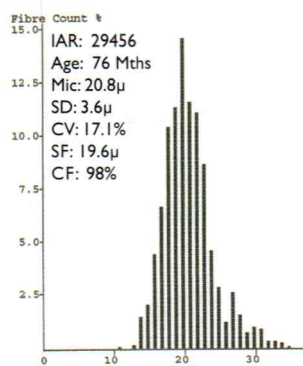
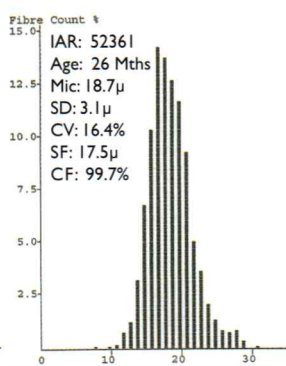
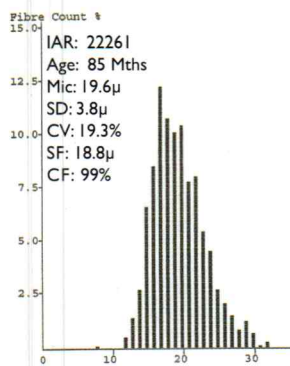
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Where are they now?

SHOWING AND JUDGING ARTICLE compiled by **Sandra Wright** > Australian Alpaca Association Inc.

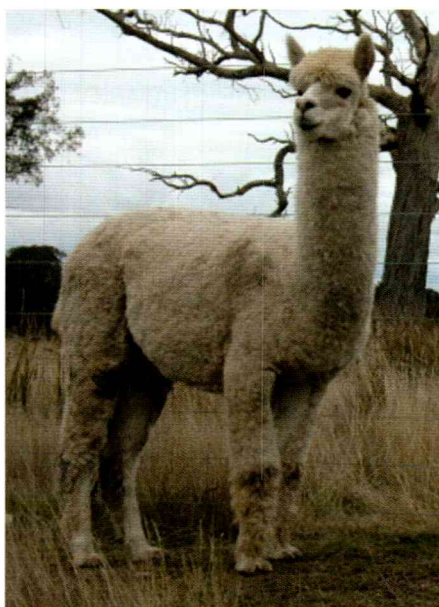
Alpacas Australia contacted the current owners of the AAA Inc. National Show Supreme Champions of 2000 to 2005 inclusive to find out what they're doing now and what they've been up to since their championship days.

Windsong Valley Iceman SUPREME CHAMPION HUACAYA 2000 + 2001

IAR 29429 > Date of birth 10/1/1999 > Owned by Windsong Valley Alpacas, WA

In 2000 *Windsong Valley Iceman* became the first alpaca in Australia to win both National Supreme Huacaya and Supreme Huacaya Fleece awards. He repeated this feat the following year and remains the only alpaca to achieve the titles back to back. He went on to prove that he is passing on his desirable fleece traits, winning the 2004 National Sires Progeny Class.

"*Iceman*" was used exclusively within the Windsong Valley herd during the year following his first Supreme title. For the next year he was then offered at stud in WA and finally stood in Victoria. His progeny are a credit to him, with numerous awards Australia wide.



His first crop of progeny on the East coast is starting to make their mark in the show ring, following their WA relatives with numerous Champion and Supreme awards.

Windsong Valley Iceman has proven himself as a real Champion. He has passed on his excellent style of lustrous, uniform, high amplitude, crimped fleece held in well defined bundles. His progeny exhibit excellent density with desirable fineness and style, just what is needed for a fleece industry.

Windsong Valley Alpacas is extremely proud of the quality genetics that "*Iceman*" has added to the Australian alpaca industry.

Cedar House Lord of the Ring SUPREME CHAMPION SURI 2000

IAR 37657 > Date of birth 12/2/1999 > Owned by Pacofino Pty Ltd, NSW

Cedar House Lord of the Ring's Supreme Suri Champion at the 2000 Nationals was the culmination of his show career and since then he has been residing at Pacofino, at Wingello in the Southern Highlands of NSW. "*Lord*", as we call him for short, was bred by Cedar House Alpaca Stud and is the product of *Peruvian Senator G153* and *Peruvian Summer Haze W900*. These parents came from Peru via the USA and were part of the first Peruvian importation to the USA. Wendy Billington and Peter Sultan of Cedar House Alpaca Stud, NSW were fortunate to have the initial bid when "*Senator*" was being sold in the USA and with Wendy's keen eye for suris they selected "*Senator*" and brought him to Australia. "*Senator*" bloodlines have produced numerous champions in Australia and several of "*Lord's*" full siblings have influenced the Australian and New Zealand suri population.



Current owners, Linda Davies and Paul Cramley of Pacofino, were just getting into alpacas in 1999 and were very impressed with the silky flow of suris. They decided to purchase a half share in "*Lord*" very early in the piece when he was about six months old and had attended the 1999 National Show where he gained the Junior Championship Suri Male. Linda and Paul felt that he displayed the conformation and suri fleece characteristics that were necessary to establish a suri breeding herd.

Pacofino has used "*Lord*" mainly in-house to establish their breeding stock in the initial years. The daughters he has produced have been mated to various other males and those daughters and their daughters, as they get old enough, will be bred back to "*Lord*" so as to out-cross the "*Senator*" bloodline back into the Pacofino suri herd. ➤

ElySION Oliver Twist SUPREME CHAMPION SURI 2001

IAR 34415 > Date of birth 31/3/2000 > Owned by ElySION Alpacas, NSW

ElySION Oliver Twist enjoyed an illustrious show career, winning nine Supreme Championships, including the Canberra, Sydney and Melbourne Royal Shows in 2001. His final win, before being retired from the show ring, was the ultimate accolade of Supreme Champion Suri at the 2001 AAA Inc. National Show.

"*Oliver Twist*" now stands proudly at stud at ElySION Alpacas in the Southern Highlands of NSW with the occasional visit to southern Queensland.



He presently has 27 registered offspring with many of these being exhibited in the show ring and four becoming Supreme Champions in their own right.

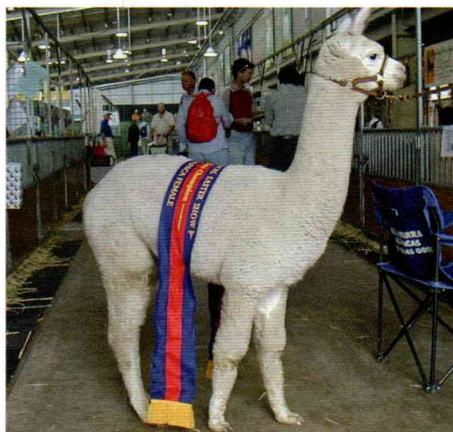
"*Oliver Twist*" is impressive in continuing to produce true to type suri fleece structure at six years of age.

He is viewed by ElySION as an excellent 'finishing' male, imparting his excellent lock structure to his progeny.

Adelyn Omague SUPREME CHAMPION HUACAYA 2002

IAR 59451 > Date of birth 16/12/2001 > Owned by Illawarra Alpacas, NSW

After arriving at Illawarra "*Omague*" pursued a maternal career while also dabbling in a few shows, resulting in 2003 Champion Intermediate Sydney RAS, and two Reserve Champions, Berry and Royal Canberra Shows 2003. This was all like too much hard work, so she deputised her fleece to do the same, which resulted in Reserve Champion awards at 2003 RAS and TOCAL for her first fleece. Her second fleece received a Supreme Fleece at the 2004 Robertson Show.



By chance, although already destined as an ET donor of the future, "*Omague*" took part in our first MOET, and produced, from a natural ovulation, one embryo which was implanted into *Illawarra Trinity*. Eleven months later the embryo was offered in utero, with her recipient mother, for auction at the first Coolawarra Easter Classic auction, one of the few ET embryos ever offered at auction. The bidding went to \$14,000 but we decided the first "*Omague*" cria, by *Prestige Valentino*, was worth more in hand to us, and so

it was passed in. The dam was taken home and one week later "*Trinity*" gave birth to *Plantel Illawarra Aphrodite*, who, at 11 months, received a third ribbon at the 2006 RAS. She has beautiful solid white, soft, even crimped fleece ... watch her progress. The day before "*Aphrodite*" was born, "*Omague*" gave birth to her first natural cria, *Plantel Illawarra Adonis*, by *Illawarra Xcalibur*; a smaller boy like his mother, who is catching up rapidly. Again, another stunning fleece (but maybe we are biased) commented on recently

by Dr Jim Watts as "an advanced animal for density and length"... in the SRS direction.

More recently, "*Omague*" has taken part in several single ET programs, and without 'lifting a finger', she is 'expecting' two cria at the end of June, one by *Prestige Valentino* and one by *Illawarra Xtatic*. She is presently preparing herself for a further foray into a MOET program in October 2006, and her skin test very clearly puts her amongst our elite females.

Pucara Tahiti SUPREME CHAMPION SURI 2002

IAR 51494 > Date of birth 20/7/2001 > Owned by ElySION Alpacas, Pacofino Pty Ltd & Earthwise Alpacas, NSW

Following his victory in the suri section of the 2002 National Show, *Pucara Tahiti* moved to his new home in the Southern Highlands of NSW.

"*Tahiti*" was purchased just prior to the show by ElySION Alpacas and Pacofino Pty Ltd to join their growing stable of top quality suri stud males. A share has since been taken up by Phillip and Kim Pisaruk



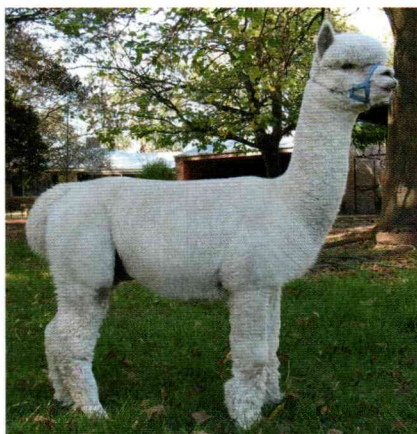
of Earthwise Alpacas and, as Phillip manages Pacofino's property whilst the principals attend to their Sydney business interests, "*Tahiti*" alternates his stud duty time between the two farms. "*Tahiti*" has been only lightly used so far but his time will come as the owners weave his genetic line into the strong background they have each been developing.

Blue Grass Centurion SUPREME CHAMPION HUACAYA 2003

IAR 54110 > Date of birth 31/5/2002 > Owned by Encantador Alpaca Stud, WA

In 2003 National Show Judge, Allan Jinks said he was, "Quite simply the best alpaca I've ever seen" and "*Centurion*" still has it all; a magnificent animal of solid frame carrying an incredible amount of superfine, lustrous crimped fleece, even from head to toe, with minimal guard hair.

Since his National Supreme win in 2003 *Centurion* has excelled on the WA show circuit in both animal and fleece judging, taking out back to back 2003/2004 Supreme Champion Huacaya titles at the Perth Royal Show and Supreme Champion at Albany 2004, then going on to take out the inaugural 2004 WA Alpaca of the Year – Huacaya. In the fleece judging "*Centurion*" took out the Most Valuable Huacaya Fleece at the 2004 Wagin Woolorama and went on to four Champion Huacaya Fleece titles and a Reserve in 2005, and both Champion 30-48 Month Fleece titles so far awarded this year. "*Centurion's*" third fleece was still a super fine 18.9 micron.



2004 saw him return to the National Show in Canberra where he took out Champion Adult Male, Champion 9-18 Months Fleece and 1st Commercial Fleece - Fawn and narrowly missed out on back to back National Supremes in the now famous stoush, "*Jolimont Warrior vs Blue Grass Centurion*" (father and son) where at one stage they were both 'sashed' with the Supreme ribbon.

"*Centurion*" commenced stud duties in WA in 2005 and has been producing very stylish solid whites, fawns,

through to solid dark browns stamping them with his distinctive coverage and fleece style. In the first showing of his cria at Whiteman Park 2006 they picked up both Reserve Champion Junior Male and Female titles and he took out the prestigious Sires Progeny title. Looking forward, from 2006 we have started to use "*Centurion*" in our Embryo Transfer program, and look forward to seeing many more "*Centurion Champions*" on the ground soon.

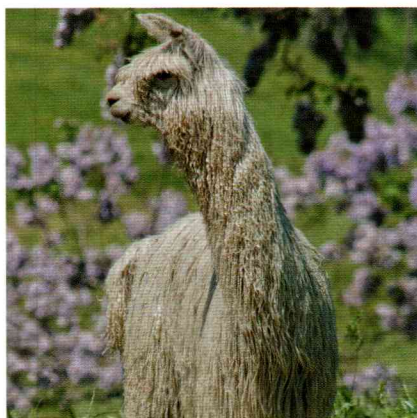
Tahara Illumini SUPREME CHAMPION SURI 2003

IAR 54702 > Date of birth 2/2/2002 > Owned by Traron Alpacas, NSW

Tahara Illumini added to his illustrious showing career by winning the 2005 National Senior Champion Suri Male broad ribbon.

This was his only showing since winning Supreme at the National in 2003.

On his third fleece he has tested 17.7 micron with a standard deviation of 4.0.



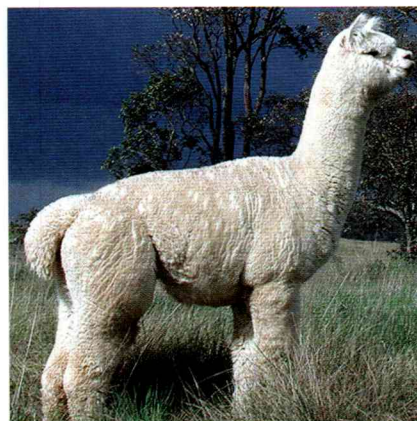
The lock structure has not altered since his first fleece.

His first cria are impressive, retaining his presence and his fleece fineness as well as distinct definition. Some of them are already winning in the show ring.

Jolimont Warrior SUPREME CHAMPION HUACAYA 2004

IAR 33415 > Date of birth 12/8/1999 > Owned by Ambersun Alpacas, SA and Ichiban Alpacas, VIC

A summary of the Supreme Champion Huacaya of the last three National Shows is an abridged version of the *Jolimont Warrior* family tree, with "*Warrior*" winning the coveted award in 2004, and his sons winning the award in 2003 (*Blue Grass Centurion*) and 2005 (*Banksia Park Khan ET*). For many years "*Warrior*" held the record for the highest price paid for an alpaca at public auction, and a new record was established in 2005, with his son *Banksia Park Khan ET* selling for \$170,000.



With his show reputation and that of his high profile progeny, "*Warrior*" has a very active servicing life as a stud male, transported for mobile matings throughout the eastern states and South Australia by his chaperone, Chris Williams.

"*Warrior's*" progeny are gaining an international reputation, and are highly sought after across the world. ►

Photo: Julie Mavros

Surilana Nureyev SUPREME CHAMPION SURI 2004

IAR 54841 > Date of birth 23/3/2003

Owned by Elysion Alpacas, Pacofino Pty Ltd., Birrong Suri Alpacas, NSW & Paltarra Park Alpacas, QLD

Elysion Alpacas turned a lacklustre showing performance into a winning result at the Melbourne Royal Show in 2004 when they succeeded in purchasing *Surilana Nureyev* after the show. The deal was concluded with the proviso that Jill Short of Surilana retained possession until after the National Show of that year, where, to the delight of all involved, "*Nureyev*" was awarded Supreme Champion Suri.

Paul and Fran Haslin of Elysion Alpacas had offered shares in "*Nureyev*" to Pacofino Pty Ltd., Birrong Suri



Alpacas and Paltarra Park Alpacas and there was very little delay in their acceptance after the excellent National Show result.

"*Nureyev*" now splits his time between the NSW Southern Highlands, where three of the partners run their herds, and southern Queensland where Paltarra Park Alpacas is located. "*Nureyev's*" first progeny are expected in the coming spring and his genetics are already in strong demand by suri breeders wishing to access his Accoyo bloodlines.

Banksia Park Khan ET SUPREME CHAMPION HUACAYA 2005

IAR 73688 > Date of birth 1/8/2004

Owned by Banksia Park Alpaca Stud, Swan Valley Alpaca Stud, Hillside Gardens Alpacas and Kallarroo Park Alpacas, WA

Following his success at the 2005 National Show and Sale "*Khan*" came back to Western Australia. He resides primarily with Ron and Rose Reid at Swan Valley Alpaca Stud in paddock 13. This coincidentally happens to be Ron's lucky number and the number of the bidding card that secured him at the Auction.

"*Khan*" was fertile from 18 months of age so his days are spent covering the female alpacas for the "*Share Khan Syndicate*" partners. He has been used in an embryo transfer program for Jim

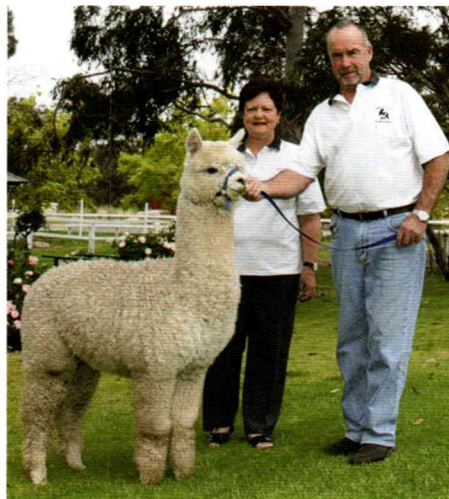


Photo: courtesy Countryman Newspaper

and Jennifer McAuliffe of Hillside Gardens Alpaca Farm. Mahlon and Debra Hotker of Kallarroo Park Alpacas are looking forward to their first "*Khan*" offspring early in 2007.

If you were visit to paddock 13 at Swan Valley Alpaca Stud as the sun is going down you will most certainly find Ron leaning on the fence sharing a beer with his mate "*Khan*".

Summerhill Silk Sensation SUPREME CHAMPION SURI 2005

IAR 72984 > Date of birth 28/3/2004 > Owned by Summerhill Alpacas, VIC

Summerhill Silk Sensation was shorn after the 2005 National Show and hasn't been shown since. She gave birth to a beautiful male cria early this year and he will be appearing in the show ring soon. She is still looking sensational, has been re-mated and is enjoying a peaceful life as a mum. ■



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Exciting National Supreme Champion Males
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CEDAR HOUSE LORD OF THE RING

National Supreme Champion Suri ★2000★



owned by Pacofino

ELYSION OLIVER TWIST

National Supreme Champion Suri ★2001★



owned by Elyson

PUCARA TAHITI

National Supreme Champion Suri ★2002★



owned by Earthwise, Elyson and Pacofino

SURILANA NUREYEV

National Supreme Champion Suri ★2004★



owned by Birrong, Elyson, Pacofino and Paltarra

For service bookings or further information please contact the owners:

SOUTHERN NEW SOUTH WALES

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02 4878 9310

alpacas@birrong.biz

ELYSION ALPACAS

02 4878 9429

elysion@bigpond.net.au

EARTHWISE ALPACAS

02 4884 1236

earthwisealpacos@hn.ozemail.com.au

PACOFINO

02 4884 1238

pacofino@bigpond.com

QUEENSLAND

PALTARRA PARK ALPACA STUD

07 3425 3405

ppalpacos@bigpond.com

My Shed ... the Glenavon Shed

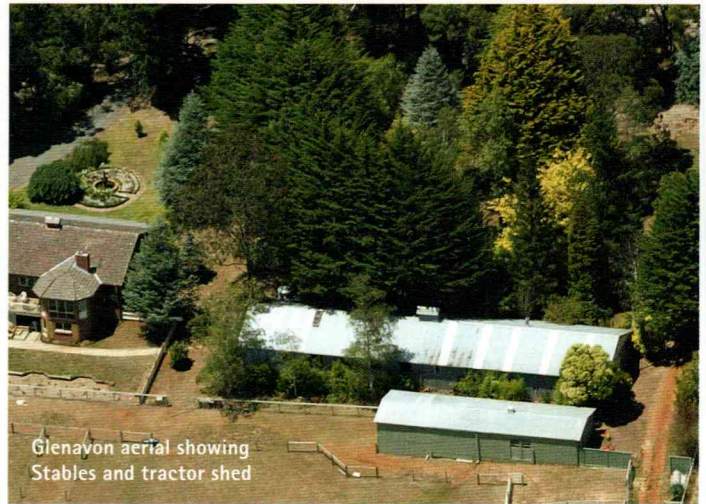
INDUSTRY ARTICLE by **Gayle Herring** > Glenavon Alpacas, VIC

It was back in 1999 when we were looking for a new property to house our expanding alpaca herd that we first set foot on Glenavon Park, Macclesfield, in the Victorian Dandenong Ranges, about one hour east of Melbourne. The property had once been a thriving Arabian Horse Stud, but had been neglected for the past 15 years, with the fences in disrepair and scrub growing up through the paddocks.

The estate agent had just finished showing us the house and had started on the outbuildings. As we moved through the disused stable complex, we thought how amazing this building would be for our alpacas. Whilst there was a considerable amount of work to be undertaken, we could only see the potential that the property had to offer. Trying not to show our enthusiasm to the agent we knew this was the property for us. After a tense couple of weeks and a public auction, Glenavon Park was finally ours.

Originally known as Beringya Downs, our alpaca herd was founded back in 1993 and in 2000 we changed the name to Glenavon Alpacas, in keeping with the new property name.

We moved into our new property during Easter 2000 and have since spent the last six years restoring Glenavon Park to its former glory. This has included completely re-fencing the property, cleaning up and rejuvenating the paddocks, and renovating the various buildings including the stable complex.



Glenavon Park was originally established as a very successful Arabian Horse Stud, which at its peak stood at stud a choice of four stallions. We are led to believe these stallions lived entirely in the stables and were allowed into the arena area for exercise.

The stable complex is certainly very impressive, measuring 40 metres long by 10 metres wide, and is located only 10 metres away from the house. Internally the complex is divided into three main areas. These comprise: -

- > **An administration area with office** as well as a small bathroom off to the side. We use the office to store our veterinary supplies for the alpacas, as it also includes a small fridge, sink, cupboards, work benches and phone.
- > **An indoor arena** which measures 17 metres by 10 metres, with lighting provided by windows, skylights and fluorescent lights. This enables us to work in here at any time of the day. The arena is fully lined, with plumbed in water, and wide gates at either end. The floor is dirt, and the ceiling is high enough that you could ride a horse in the arena without hitting your head on the roofing truss.
- > **The stables themselves** which are 20 metres long and 10 metres wide. This area is divided into a mix of open bays and enclosed stables on each side of a central 2.4 metre wide corridor. Each bay or stable is 4 metres by 3.8 metres. In total there are seven fully enclosed stables and three open bays.

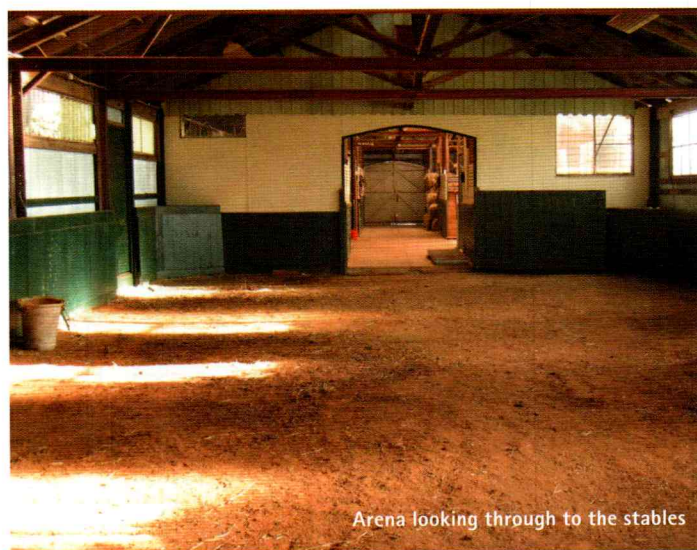
The stable complex has obviously been hand built, we believe about 30 years ago. The frame is sturdily constructed from timber, with a steel exterior. The stables and bays are timber lined. The original owner obviously had access to a wide range of building materials; the stable doors appear to have been sourced from a prison or psychiatric hospital complete with their metal bars.

Each stable has a horizontal rail, at waist height, which has been covered with the rubber handrail from an old escalator, to help prevent injury to the original horse occupants.

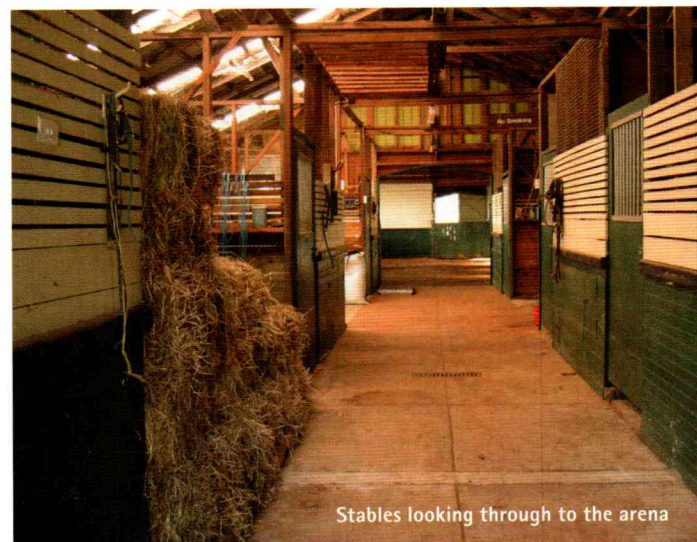
Apart from removing the rubbish left in the stables from the previous owners, there wasn't much we had to do before the alpacas could move in. Some of the stables and the open bays had a dirt floor so we have put in drains and concreted the floors for easy cleaning. The wet concrete was then swept lightly with a broom so as not to be slippery. We also replaced the skylights and gave the whole building a coat of paint.

The stables are used regularly. Most of the cria I have bred are locked up in the stables on straw on their first night for observation to ensure they are healthy and drinking properly. Their Mums also seem quite relaxed to be there. I have never had a Mum who has stressed while being locked up and away from the herd. We also use the stables to lock up the alpacas the night before a show to keep them dry and clean. It makes them handy to catch for the early morning start on show day.

The open bays are used for feed storage and are also where the shearing takes place. The alpacas are herded into the arena and then about ten at a time are herded into a stable adjacent to the shearer where they can be easily retrieved for shearing.



Arena looking through to the stables



Stables looking through to the arena

But it is the arena that really makes this building special. This area has proved to be invaluable as it is large enough to keep the alpacas undercover for quite a period of time without the problems associated with them being locked in relatively small pens.

An example of the benefit of this was when one of our stud males cut the pad of his foot one winter. It wasn't possible to stitch it and the vet advised it had to be dressed, bandaged and kept dry. At first we tried the plastic bag technique and left him in the paddock, where we thought he would be happier. We soon realized that wasn't going to work when we would come out in the morning and were presented with a wet soggy bandage with the plastic wrap somewhere else in the paddock. We finally moved him and a mate into the arena, and it started to improve. It still took weeks to heal but the alpacas didn't seem to mind being undercover and not only maintained their condition, but put on weight in the process.

Another great use of the arena is that our open days are now under cover. We erect portable pens along one wall to display the alpacas and there is still plenty of space for our other activities.

However the most important use for the arena is for protecting premature or weak cria, who aren't quite ready to be out in the paddock. Again there is plenty of room for them to move about and they are protected from the elements. When catching them in the arena starts to prove difficult, I know they are ready to be outside.

Six years on our vision of the stable complex has proven to be correct. However, the flexibility that this marvellous facility offers to enable many different uses still amazes us. ■



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The next Alpaca Workshop Weekend, for new breeders is on September 23 & 24. These "Introduction to Alpacas" workshops continue to attract participants from all over Australia and New Zealand.

What Participants Say.



Ian Wastle and his partner Cherie of Rockville Alpacas in NSW got their start at one of these workshops. They say, "We have gone from newcomers, attending the New Breeders Workshop, to actually showing our own alpacas. Now, with six show ribbons from shows including the Melbourne Royal and the National Alpaca Shows, we are really participating. An important part of this has been the help received from Flowerdale Estate Alpacas that has given us confidence. We have enjoyed our involvement immensely."

The Program.

Includes classroom learning and hands-on sessions in the barn working with the alpacas. Participants learn the basics: halter training, chuckering, weighing, body-condition-scoring, nutrition, mating, spit-offs, birthing, cria care, weaning, shearing, fibre classing, vaccinations, drenching, toenail trimming and record keeping.

There are also sessions on goal setting, farm

planning, paddock and pasture improvement, herd development strategies, business plans and marketing your alpacas.

The Venue.

Flowerdale Estate is an award-winning, residential, corporate retreat for up to 60 people. Stay in luxury accommodation and let the chefs tempt you with their award-winning menus. These workshops have also provided a wonderful opportunity for alpaca breeders to network and socialize. Many lasting friendships have started at these special weekend events.

The Weekend Package.

Why not make it a special weekend? Relax in the heated pool. Play some tennis. Workout in the gym. Enjoy a sauna or challenge someone to a game of pool. At the end of the day, relax with a pre-dinner drink and a savoury or two. The individual price is \$425 (\$625 couple).



WORKSHOPS FOR NEW BREEDERS.



The package includes en-suite accommodation for Saturday night, Saturday and Sunday lunch, morning teas, Saturday night dinner; use of recreational facilities, workshop tuition and all course materials.

Bookings.

Complete details and booking forms are on the website at www.flowerdalealpacas.net.

Or phone Kim on 03 9728 7000.

Fleece Workshop

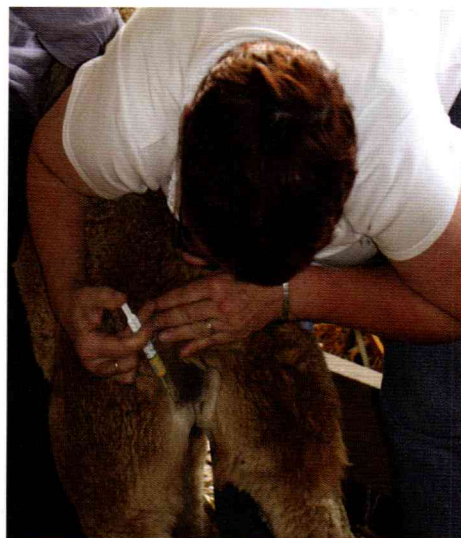
Don't miss the annual fleece workshop on October 14 & 15.

Learn how to establish a breeding program that will improve the quality of your fleeces. Understand the value of record keeping - fleece sampling, weighing, length measurements.

Learn about preparation of shorn fibre for optimizing returns through effective skirting, sorting and grading.

Details are on the website at

www.flowerdalealpacas.net



FLOWERDALE ESTATE ALPACAS



What's on at Creswick Woollen Mills

INDUSTRY ARTICLE by **Boaz Herszfeld** > Executive Director, Creswick Woollen Mills

Creswick Woollen Mills is keeping its customers in Australia and overseas cosy and warm this winter with a luxurious range of products made locally in Creswick using Alpaca, Merino Wool and Cotton. In addition Creswick Woollen Mills spends significant resources developing Innovative Alpaca Craft Products.

David Jones and Alpaca

Creswick Woollen Mills has become a major supplier to David Jones Australia wide, on most weeks their number one supplier of blankets nationally. This status is increasing its promotion of alpaca products in-store through Point of Sale Material, educational store visits and nationwide public relations.

It is always worth noting that Creswick Woollen Mills is one of the few woollen mills in the world that spins 100% alpaca fibre, weaving the yarn into luxurious blankets and throws designed by Mill staff.

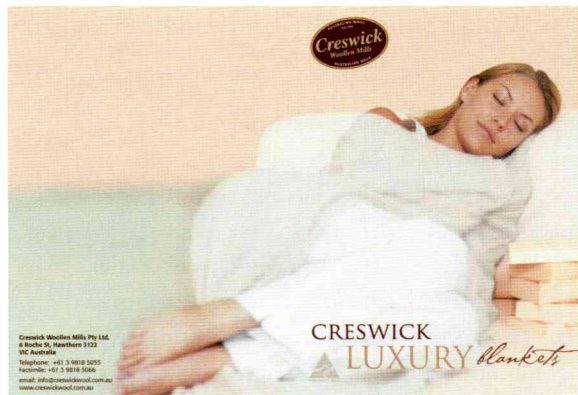
The Mill takes up every available kg of fibre deemed suitable for its blankets and throws from Australia Alpaca Fleece Ltd. (AAFL). With the demand growing each year we thank AAFL for its efforts and urge all growers to increase the quantity of fleece supplied to ensure quality retailers receive their required orders, effectively raising the profile of the industry overall.

Creswick Crafts

Over many years Creswick Woollen Mills has supplied quality Merino Craft products to major Australian craft retailers and in 2005 commenced development of the Creswick Craft Alpaca Range which includes:

- > Alpaca carded fibre suitable for needle felting in its natural state.
- > Alpaca craft fabric strips suitable for decorative projects and creation of unique scarves.
- > Alpaca craft fabric pieces suitable for baby blankets and handmade garments.

One of the well known faces of Creswick Woollen Mills is local Hepburn Shire resident and craft specialist, Tonia Todman. Tonia is a great supporter of the Mill's locally made products and in conjunction with Mill staff has developed a range of Creswick Craft products. The big creative trend soon to impact in Australia is 'yarn craft';



embellishing fashion garments and furnishings with yarn and texture. It is safe to say the handmade look is with us. Needle felting with the Creswick Craft needle felting tool is opening up many creative opportunities for craft enthusiasts. Creswick Craft *How To Sheets*, designed by Tonia Todman show you how to create your own Creswick Craft Creation. These free *How To Sheets* and the necessary Needle Tools and Felting Brushes are available at:

- > Creswick Mill Open Days – 9am to 4pm first weekend of the month (Thursday to Sunday) at Railway Parade, Creswick, Victoria 3363 (120km NW of Melbourne).
- > Creswick Factory Outlet – 9am to 5pm Monday to Saturday at 6 Roche St., Hawthorn, Victoria 3122
- > Stitches & Craft Fairs – Rosehill Racecourse, Sydney & Caulfield Racecourse, Melbourne

Open Days

Decorative signs in the towns make it easy to find the Mill and over 10,000 visitors have attended the first eight open weekends. Visitors are greeted by one of the friendly alpacas on site, which are brought by volunteer breeders from the AAA Inc. Victorian Central Region. After a chat with the breeder visitors are then able to see textile machinery at work. Following this educational phase of the visit it is time for shopping with a vast range of Creswick Woollen Mills products available for sale, including the Creswick Craft Collection and samples and seconds of the Creswick Alpaca Collection. In line with loyalty to our alpaca retailers current season stock is only available at recommended retail prices.

Web site

Creswick Woollen Mills, which was established in 1947, has finally entered the 21st Century by enabling customers worldwide to buy on-line. Visit www.creswickwool.com.au to view new products and upcoming event details, download craft competition details, learn about natural fibre products and read customer testimonials about our products. ■

My Alpaca Transport Vehicle ...

... multi-purpose is the way to go!

by **Wendy Summerell** > Starwood Alpaca Farm, QLD

During the past decade we have transported alpacas in several forms of vehicles. Each had its unique pros and cons, and the desired criteria for the next vehicle evolved with circumstances and experiences. One important aspect is that every vehicle must serve a dual purpose. Unless your farm has a superior cash flow, it is not economical to account for capital purchase/running costs of a single use vehicle. The main purpose of the vehicle at the time, the number of animals/when/where to be transported all influenced the choice.

The duration of our journeys may be a short 20 minute dash to the vet, or weeks interstate when attending the National Alpaca Show etc. For short trips a removable mat (carpet or rubber) is placed in the vehicle however, for extended journeys, a deep bed of straw is provided for both comfort and sanitary conditions. Unless carrying very young crias where rest stops may need to be increased (to allow time for the dam to get to her feet and the cria to feed) the required rest stops for the driver, every two to three hours, also prove adequate for the alpacas.

As all animals have different constitutions and temperaments some handle transportation with ease, for others it may be quite stressful. A spare halter and lead, bucket and quantity of water are kept permanently in the vehicle for emergency situations. In addition the first aid kit also includes glucose along with the usual items. This can be mixed with water and provides a handy 'pick-me-up' should an alpaca shows signs of not coping with the longer trips.

Prior to purchasing alpacas we were already transporting our show horses with a Ford Maverick diesel 4WD utility coupled to a two-horse dual axle trailer with an extended front. With no capital outlay this provided us with immediate alpaca transport. The extended front of the trailer was fitted with cupboards; these provided a clean safe area for storage of alpaca/human gear. The internal division could be removed to provide one large area capable of carrying up to eight alpacas. On multiple day journeys with overnight stops, the number was reduced to six alpacas. The trailer was fully enclosed and the access door could be locked making it both comfortable and safe for the animals to remain in the vehicle overnight. Sliding windows on both sides and roof ventilators provided fresh air. However, as with any vehicle, special care was taken to ensure the vehicle was never left parked in direct sunlight with the animals inside.



Unfortunately the size and weight of the combined rig were also its drawbacks – high running costs (fuel) and difficulty in parking.

When our alpaca farm commenced a retail outlet at a popular tourist site on the Gold Coast we included a display pen of alpacas each Sunday. Parking a rig of this size in the car park was not an option so an alternative was devised. An aluminium crate was manufactured to fit the tray of the utility that could carry four or five alpacas. Requiring just one parking space that problem was eliminated, and by deleting the trailer fuel consumption, economy was much improved. The lightweight aluminium construction allowed the crate to be easily removed/re-fitted so the vehicle was still available for other uses. Access was provided by a removable aluminium ramp, which could be carried between the crate and the rear tailgate when mobile. Unfortunately this restricted the length of the ramp to the width of the utility tray and the ramp was steeper than we would have liked. A canvas cover offered protection from the elements although not to the same extent as the enclosed trailer that was still used for longer journeys.

Rising fuel costs prompted the purchase of the next vehicle. In 2002 a new Ford Transit van fitted with a 2.4 litre turbo charged diesel engine was acquired. The power steering, comfortable seating and remarkable fuel economy made the vehicle a pleasure to drive either to the local shops or for long distance driving. It fitted the dual-purpose objective well. For the alpacas, the mid wheelbase / mid roof model gave them plenty of room in air-conditioned comfort. With a split rear door plus sliding doors on both sides (optional extra) access to the alpacas was available from three directions. Sliding windows on both side doors were added providing excellent ventilation.

As well as the front cargo barrier a second removable barrier was fixed half way to make two compartments. A parcel tray above the cab provided the safe storage space for gear. The only flaw to this model was the relatively high cargo area from the ground. This was no problem with alpacas that learned to jump, however it was difficult when loading reluctant travellers.

Educated by experience we had a list of criteria for our next purchase – a fuel efficient van of mid size.

- > Safety and comfort features standard.
- > Suitable for daily use in addition to transporting alpacas.
- > Fixed storage area.
- > Split rear doors. (Opposed to a single lift-up door, that is difficult to close when you are also busy restraining alpacas from jumping out.)
- > No SOLID partition between cab and cargo area – a MESH partition allows airflow and visual observation of alpacas. (If spitting is a problem, a removable shade cloth curtain can be hung and will not interfere with vision/air ventilation.)

Our current vehicle is a Renault Trafic Integral, long wheelbase, high roof van that was purchased in February 2006. It has a 1.9 turbo diesel engine. This model satisfied all of our requirements, PLUS it has a low step-up height into the cargo area. Since purchased it has been fitted with side windows, solar ventilation in cargo area, mesh cargo barrier with walk-through door from cab, a second removable divider and removable rubber mat in the cargo area. The Trafic Integral model is fitted standard with ABS, air conditioning, driver and passenger air bags, power windows and power mirrors with a six speed manual gear box. External extras such as nudge bar and signage have also been added. The Integral model was chosen for its safety features and it drives just like a passenger vehicle. This model is suitable for transporting up to six alpacas and still fits our criteria of multi purpose.

The purchase of the new Renault was justified when on a trip from Queensland to the Sydney Royal Easter Show it completed the journey on one tank of fuel, returning an amazing average of 7.25 litres per 100 kms. Our particular Renault Trafic has been featured in the June 2006 edition of Owner Driver Magazine, which is a commercial transport industry magazine.

... a transport of delight

by **Ian Davison** > Illawarra Alpacas, NSW



Mercedes Sprinter Turbo Diesel 313 van towing an alpaca trailer

Having entered the alpaca industry in 1992 with just four alpacas, the transport requirements of Illawarra Alpacas have seen dramatic changes over the past 14 years, as our herd has grown to its present size of about 450 alpacas.

In 1994, we took our one male down to the Royal Melbourne Show, towed in a single axle trailer behind a Hilux ute. In 2006, we transported a total of 19 alpacas to the Sydney Royal Show in a purpose-designed van towing a purpose-designed alpaca float.

As alpaca enterprises grow, alpaca breeders discover two fundamental needs: a need for more space, and a need for bigger transports.

Transporting alpacas is a basic requirement to the alpaca breeder, whether it be to shows, for mobile matings, for shearing, to public displays, to the vet, or to deliver alpacas to clients. The same vehicle is also called into play for transporting fleece or feed, and may have to serve a variety of purposes unrelated to alpaca breeding.

Our own evolution has been from towing a box trailer, to a horse float, to a purpose-designed alpaca float, and finally to a dedicated alpaca transport van. Our graduation to a Mercedes Sprinter Turbo Diesel 313 van was made last year, and is an indulgence that has justified itself time and time again in the twelve months since we took delivery. ➤

We first spotted a similar vehicle over a year ago, when it overtook us on the highway as we returned from a show in the Toyota Land Cruiser, pulling a float of eight alpacas behind us. It overtook us effortlessly and pulled away up the hill ahead of us, and we wistfully mused how it might have made a useful alpaca transport vehicle.

Three months later we took the plunge, having located a heavily discounted long wheel base, high roofline Sprinter that had been ordered and fitted out for another buyer who had then reneged on the deal. The van was already configured with a tow bar, a single window on the kerb side panel, a wire cargo panel separating the cabin from the load compartment, and a sliding door between the two. A rubber mat had been cut to the size of the load compartment, and air conditioning fitted.

Our own customised fit-out included a fibreglass/rubber coating that was continuous along the side walls and floor of the vehicle (to facilitate hosing out the cargo compartment), additional air vents and ceiling lights in the cargo compartment, a system of modular meshed dividers to create separate pens within the cargo compartment, and a removable seat to accommodate two extra people immediately behind the passenger compartment.

We had thought that a custom ramp might be necessary for loading and unloading alpacas, but educated alpacas quickly learn to jump into and out of the side door during loading and unloading.

The air conditioning is powerful, and quickly cools the cabin. The meshed cargo barrier is lined with clear plastic to prevent alpacas sharing their rumen with their human minders, and so prevents easy circulation through the cargo compartment, but the sliding door may be opened between the two, even on the move, if the alpacas seem settled and unthreatening. Perhaps an auxiliary fan might improve circulation of cool air. The ceiling vents ensure that warm air is expelled automatically when on the move. Ceiling lights can be operated from the dash board of the cabin whilst in motion, or independently from within the cargo compartment.

The vehicle is driven by a five-speed manual turbo diesel, and drives like a sedan, with amazing acceleration and pulling power. The ride is comfortable and engine noise is moderate. Fuel economy is amazing, at around 7 litres of

diesel per 100kms unladen, giving a range of up to 1,000 kms on a full 75 litre tank. (Fully laden, or pulling a trailer, range will naturally be lower). Standard seating in the cabin is for two people, but there is sufficient room to install a double passenger seat in place of the single seat.

The vehicle travels effortlessly with a full load, towing an alpaca trailer behind, with a combined cargo of 19 show alpacas. Without dividers, the van alone could accommodate up to 10 adults or 15 weaned yearlings. We have a rubber mat on the floor, which ensures good traction for the alpacas, and helps to protect the fibreglassed floor. We spread hay on top for comfort and cleanliness, and all are easily removed for cleaning the van, which can be hosed out (towards the rear doors!).

With the modular dividers, we can pen off individual spaces for grown male alpacas, just wide enough for them to stand, but not to turn around. They seem to travel very comfortably and quietly in this manner, without challenging each other for space. Alternatively, we can pack a lot of animals in together, or choose a mixture of both modalities.

We have transported eight pressed bales of fleece in the van, and could have accommodated more with judicious packing. The van has completed four return trips to Melbourne, and countless local journeys to shows, as well as taken four-wheel drive motor-bikes and ride-on mowers to motor hospital. The kids have their eyes on it for moving house, and their parents whimsically contemplate the day when the alpacas get pushed aside, and it becomes a mobile motor home.

Total cost was \$50,000 for the van, and a further \$12,000 for the custom fit-out and signage. Wherever it goes, it advertises Illawarra Alpacas: at \$100 a day for advertising, I reckon it will take about two years to pay itself off.

How does it rate against our previous transporters? Streets ahead in comfort, capacity, versatility, reliability, and even fuel economy. Disadvantages? Up front costs are a definite consideration, and the Cruiser has a separate life apart from transporting cargo.

Was it a good decision? You bet! From here, any increase in transport capacity would require a dedicated livestock transporter of the type used to transport sheep: reckon we'll wait till we're running an alpaca station before we head along that road. ■



Interior with two gates fastened to inner rails, and fibreglass lining



Four layers of flooring: fibreglass coating, rubber webbing, rubber mat, straw



Cargo interior showing fibreglass coating, wall and ceiling lights, vents



Modular dividers in place, with storage space inside back doors



Passenger cabin, showing cargo barrier and centre door

Sydney Royal Easter Show 2006

SHOWING AND JUDGING ARTICLE by **Jan Crosby** > Hawkesbury / Blue Mountains NSW Region

Most of the gallery at the 2006 Sydney Royal had clear opinions as to the Supreme Huacaya, until the mature male class (48+ months). Senior AAA and international Judge, Lyn Dickson was so impressed by the champion Mature Male, *Cedar House Tijera Hugo*, that she awarded him **Supreme Champion Huacaya**. Recently imported by Wendy Billington and Peter Sultan of Cedar House Alpaca Stud, NSW, "*Hugo*" is 9 years old. Lyn remarked that she was delighted to see such quality of frame, fleece and presence in an alpaca of this age.



Supreme Champion Huacaya Cedar House Tijera Hugo



Supreme Champion Suri Surilana Piccolo

Supreme Champion Suri was *Surilana Piccolo*, a stunning light fawn male owned by Jill Short of Surilana Alpacas, Victoria. Although only 14 months old "*Piccolo*" last year also won the Junior Male section at the Royal Melbourne Show.

In the fleece competition a total of 108 fleeces were judged. **Champion Suri Fleece** was *Bumble Hill Magnolia* (white 6-12 month class). **Champion Huacaya Fleece** was *Illawarra Yucatan* (white 18-30 month class). Judge, Lyn Dickson commented on the extremely high standard of fleeces from older alpacas, with 18-30 month classes equalling the best seen in the country. Congratulations to Frank and Julianne Gelber and Harriet and Ian Davison and Celia Cook.

Thanks to our Judge, Lyn Dickson who judged with great consideration and thoroughness. Lyn was pleased to see such large and impressive classes of Huacaya Intermediate and Senior males and noted how important it is for animals to be exercised well when penned as they sometimes do not walk easily in the ring. She also spoke of the need to have animals shorn rather than clipped.



Thank you to all exhibitors for presenting some exceptional animals and fleeces.

Jeanne Brown (Shed Captain) is to be commended for her calm, supportive leadership. Jeanne and her team worked steadily to bring about a show that came together well despite the many challenges.

Bedding of sand and sawdust rather than straw for the alpacas was an early challenge but by show's end it was acknowledged that animals and pens were in good condition and the bedding was given the 'thumbs up'.



The **Alpaca Fashion Parade** received a fantastic public response. Magnificent garments were supplied by a variety of alpaca wear outlets and designers. All manner of styles of daywear/playwear, business, evening and bridal wear were alluringly presented by the magnificent models and attracted significant television news coverage. An indication of the very positive public response was orders for garments within twenty minutes of the parades. Well done to Robin Fullarton, her models and organising team for the very professional and stylish parades. Congratulations on promoting the superior quality of alpaca garments. ■



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JOLIMONT WARRIOR

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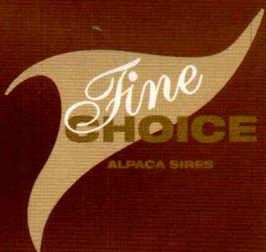


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Getting Hooked on Suris

SOME BREEDERS SHARE THEIR STORIES

SURI ARTICLE compiled by **Jill Short** > Chairperson, AAA Inc. Suri sub-committee

Whether white or coloured, more and more people are getting hooked on suris. As suri numbers increase, quality stock is finally becoming available for people captivated by the 'other' alpaca. Suri breeders are passionate about both the animal and its fibre, believing that Australia has the opportunity to breed better quality suris than anywhere else in the world.

Internationally suris are rare. In Peru they make up less than 14% of the national alpaca herd. In the rest of the world it is less as Peru only ever allows small numbers to be exported (20% of any shipment, only 5% of which can be coloured).

Quality suri fibre, especially in the low micron ranges, is also extremely rare. It is luxurious and scarce – the ingredients of exclusivity, the ingredients for continuing raw fibre demand.

In this article we ask a few breeders to reminisce about what led to their choice to breed suris and where they are headed.



Jill Short of Surilana Alpacas, Victoria has been breeding suris for as long as anyone in Australia and remembers clearly what led to her choice to breed suris.

"We had been breeding huacayas for a number of years when I heard of Don Julio Barreda's impassioned plea to help save the suri. The year was 1994 and Don Julio had been invited to Charlevoix in Michigan as guest of honour at the first sale of Accoyo animals in the US. In his speech Don Julio announced his special mission – to save the suri from extinction.

He spoke of the effect of the arrival of the Spanish conquerors some 400 years ago, and how since then it has only been the inherent genetic strength of the suri that has enabled it to survive when left to freely breed with the huacaya in higher altitudes than those to which it was suited.

He spoke of the 1930s and 40s when there were many renowned farms dedicated to the suri but how in recent times, particularly during the 1968 reforms (Reforma Agraria), these had all but disappeared.

In closing Don Julio called for international help to save the suri saying, "Together, we can protect this small treasure bestowed on all of us by Mother Nature." From that night suris took off in the US and Australia and it became my dream to breed Accoyo suris.

In the decade that has passed since the first handful of white suris arrived in Australia the quality has improved immensely. Whilst the initial animals were fine boned, slender animals with light fleeces, later imports and good selective breeding have seen the Australian suri mature into a more heavily boned animal with much greater fleece density. No longer does the ideal suri merely display 'curtains of silk'.

Today we are seeing animals carrying heavy, compact fleeces with high lustre and great density displaying the characteristics Don Julio described when asked in an interview with Mike Safley of Northwest Alpacas, USA to describe his ideal suri alpaca.

"First the suri must exhibit lustre in its fleece. Next, it should be dense with well-covered legs, and its head should be well formed with fleece growing down from its chin. Finally, the lock formation should be uniform over its body, beginning below its ears and extending to its toes".

I was privileged on several occasions to visit Don Julio at his farm above Macusani and it was there I formed my picture of the perfect white suri. I may never see one on my farm in my lifetime but it is this picture that drives my passion, my breeding decisions and my stock selection."

Ian and Angela Preuss of Pinjarra Alpacas, Victoria were also quick to identify what they saw as the potential of the suri when they entered the alpaca industry over 10 years ago.

"After seeing suris for the first time, we were well and truly hooked. There were only a handful of coloured suris in Australia then. The rarity of the coloured suri made it very enticing and this was the direction we decided to take. However, like most people, breeding suris quickly changed from a 'lifestyle / investment opportunity' into an obsession!

Breeding coloured suris gives us a point of difference. Over the years our direction has evolved to specialise in golden suris, the colour we adore and most aspire to breed. As well as loving the golden colour, we believe it is a traditional, high fashion shade that will always be in strong demand. We dream of a future where models parade down catwalks wearing exquisite coats, suits and capes, made from natural coloured, Australian, golden suri fleece.

It is rare in the Australian alpaca industry to find breeders focussing equally on breeding suri and huacaya. Whilst there are many breeders with both types, usually their prime focus is one or the other. Exceptions to this are Robert Gane and Peter Kennedy of Canchones Alpacas, Victoria. Here they share their story and Peter gives some impressions of his recent experience judging suri at a major US show.

Peter: "Recently, as part of my AOBA judging apprenticeship I completed a show in Denver, Colorado judging suri. Over two days, over two hundred suri were judged in the ring, not including the large number of entries in the group classes such as sires progeny.

In the USA, the suri is a very large and important section of any show. Though representing some 10% of the national herd, suri numbers often equate to 25% of alpacas exhibited at shows. The suri breeders have an active and vibrant network designed to promote the suri. This they do very effectively.

The quality of suri in the United States is equivalent to that seen in Australia today. There is of course a wide variation in the quality of suri shown but that is the same situation here in Australia. The pleasing aspect of suri showing is the support that local suri breeders give to their shows with the numbers of entries. This indicates the realisation by breeders that, for the suri to be seen as a viable alternative to the huacaya for those entering the industry, they must be seen in numbers at the shows.

The show system is recognised in the USA as an essential part of marketing, not only for the individual breeder but also the industry as a whole. This is one aspect that the USA industry has over the Australian industry. The lack of recognition of the show system's importance to the marketing of the industry and recruitment of new entries into the industry is an ongoing issue for the Australian industry."

For Canchones, the decision to introduce black suris into their breeding program was a simple one – their clients were asking for them.

We also breed whites and the elusive grey suri, the rarest and most difficult colour to breed. The real challenge in breeding coloured suris is to increase their number, while continually improving the fleece traits, which are already well developed in the higher quality whites. We believe that today's coloured suris have realised only a small percentage of their genetic potential. We feel very privileged to have some fawn, white and grey Peruvian suri males, which are having a big impact in our coloured suri breeding program.

Coloured suri breeding in Australia is still in its infancy and there are tremendous opportunities for people who are passionate about breeding coloured suris to really make their mark in the Australian alpaca industry. It is a slow process and there is still a long way to go. However, this is part of the anticipation, excitement and reward of breeding them."

"As a recognized breeder of black huacayas, clients had started to ask us if we had any black suri for sale. At the time we hadn't entered the suri market as the genetics for black suri were very limited and we therefore thought that the possibility of improvement was limited. At about this time we heard of a number of black suri males being imported into Australia from Peru. We therefore thought that this would be the ideal time to add suri to our herd and we jumped right in. We bought numerous females, mainly first and second cross females that were showing quality suri characteristics for coloured suri and bred them to these new imported males.

We also supplemented the Australian females we had available with a couple of full Peruvian females that were available from these shipments. Later we added to the number of Peruvian females by purchasing another group of females when they became available from another importation. Finally, in 2004-2005 we imported a male and four females from Peru ourselves.

With the addition of these new genetics, we have noted a significant improvement in the quality of the black suri we are breeding.

With the focus of dedicated coloured breeders, the quality of coloured suri has improved markedly in the four years we have been breeding suri. As we see more coloured suris in the shows, we have seen an increase in the acceptance and interest of new and current huacaya breeders in the breeding of suri. This has mirrored our experience with black huacaya. It is essential that we increase the numbers of quality suri being shown to generate the ongoing interest in the suri as a viable alternative." ►

For Chris Stewardson and Angela Hass of Tolendal Alpaca Stud, Victoria the pathway to breeding suris was an upward progression of refining their long term goals.

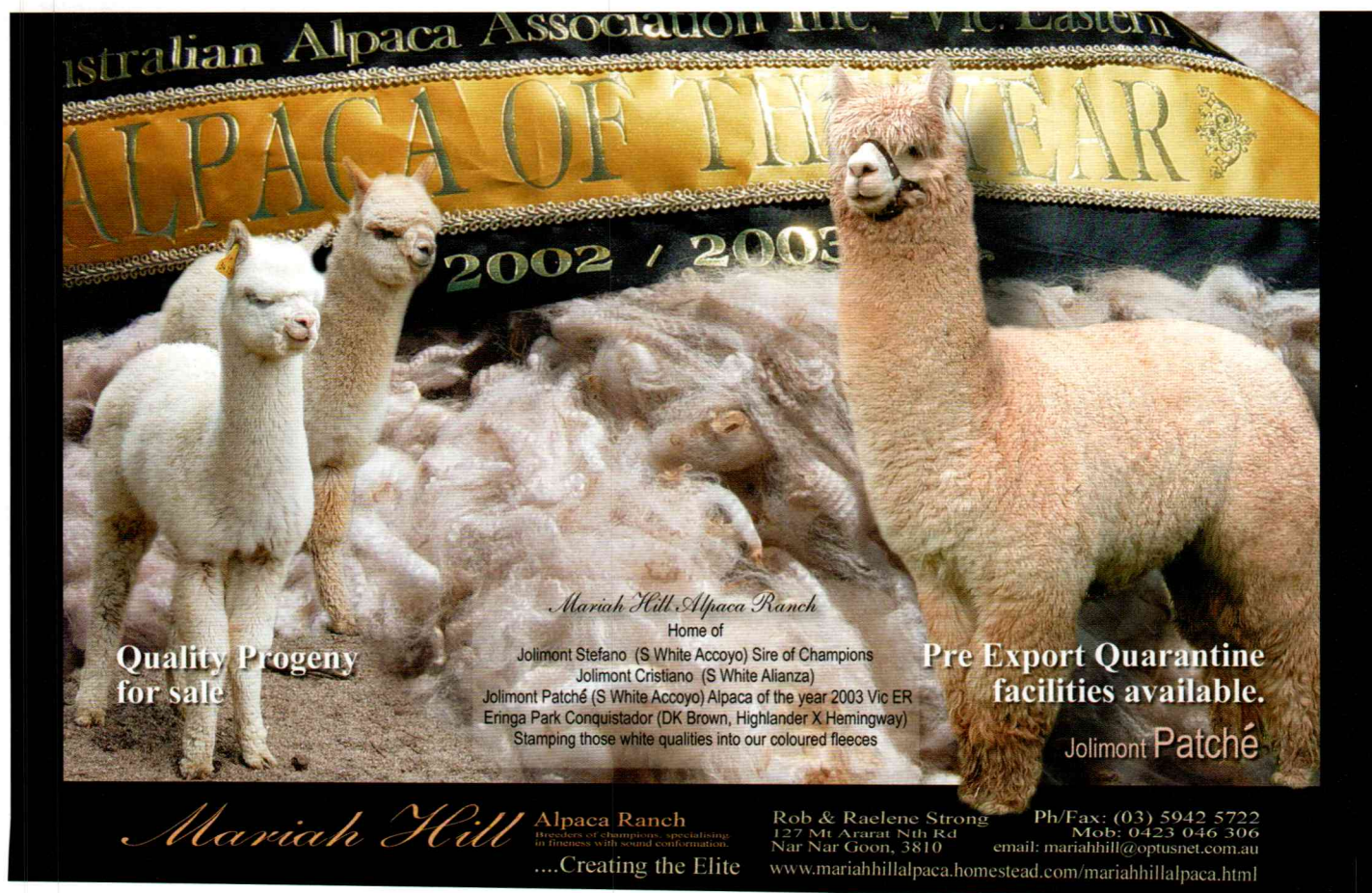
"It started six years ago when we acquired a farm, becoming what the real estate people call 'lifestylers'. We had almost no farming background, but we did not want to be dissociated from our land by continuing with the arrangements for agistment of cattle, which were in place on our fifty acres. We quickly homed in on running alpacas as a manageable, attractive and fulfilling activity for us to pursue in conjunction with our full-time jobs. Once we were at ease with our beginners' herd of very decent quality huacayas, we started looking for ways to move forward, so that Tolendal Alpaca Stud would gain a distinctive character that we could feel proud of. It did not take many visits to shows to realise that we were way out of our league when it came to the ever-growing contingent of top-quality huacayas and that bridging this gap was a daunting, near impossible task.

Suris, however, offered a different prospect and they still do. Among the comparatively small number of suri breeders, outstanding quality of breeding is just as evident as it is with huacayas, but there is scope to join in. As newcomers, we could set ourselves ambitious goals and feel supported by the advice and generous spirit of experienced suri breeders. We bought our first young suri early in 2002 (described to us as "a potential show quality girl"), won our first broad ribbon with her in our first big show later that year, and have been hooked ever since!

In an industry in which huacayas dominate numerically, it is rather nice to own alpacas with a dominant gene! Suris may only be a small percentage of the worldwide herd,

but they are a larger proportion of the Australian national herd than anywhere else. This standing and the recent growth in suri numbers, makes us as suri breeders feel very much a part of something which is shaping the future. Australia is positioned to be the world leader in suri genetic improvement. The quality is here, even if at this stage the depth of field is not, when compared to Peru. Embryo transfer is moving us rapidly forward, however, and the financial aspects of such programs are more attractive and viable than they are with huacayas. On a personal basis, ET allows us to put our own distinctive breeding stamp on our herd in an even shorter time frame than we could have dared to hope. A bonus is that we can happily use our foundation huacayas as valued recipients. As we both work at university, we are keen to see research undertaken and do our best to infiltrate the message of the untapped field of alpaca genetics. Scientific analysis, we hope, is now just around the corner to help us underpin the dramatic advances that leading suri breeders are making on an empirical basis.

One further aspect of our enjoyment is that suri breeders are a close-knit, supportive group, who delight in being the tail that sometimes wags the dog. We feel that we are very much a part of that grand plan of the AAA Inc. that aims for a million alpacas in Australia by the year 2020. By the same token, breeding suris is somehow a more intimate and personal activity. As alpaca breeders – suri or huacaya – we like to talk of ourselves as an emerging industry; but with suris, you still have that rewarding sense of being a pioneer."



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www.mariahhillalpaca.homestead.com/mariahhillalpaca.html

One suri breeder who knows lots about fleece in general is Julianne Gelber of Bumble Hill Alpacas, NSW. Julianne has spent much time investigating markets domestically and internationally for suri fleece. It is her passion. When asked what makes suri fleece so special she had this to say.

"I guess it is the potential for luxury that attracts me. Luxurious textiles created from rare fibres have always been characterised by lustre, softness, lightness e.g. silk, cashmere, vicuna, chantouche. Quality suri combines all of these attributes with the additional benefit of strength. There is something enormously sensuous about the handle of luxury items made from rare yarns; the caress on the skin, the drape, the passage of light down the surface of the fabric. And suri promises to be more enduring because of its physical structure, a fibre befitting heirlooms and gifts of significance.

I am also fascinated by the folklore surrounding the suri. The fact that the Incas bestowed on it the title "Fibre of the Gods" and only the Incan hierarchy could wear garments woven from suri imbues it with an almost mystical allure. Lengths of suri cloth of extraordinary fineness found in near perfect condition in Nasca and Incan tombs attests to the tenacity of the fibre.

But I am frustrated that in the 21st century we have pathetic mills that say that even with all their sophisticated technology they are unable to easily process this glorious fibre.

Deborah Patti and Jack Swan of Esterlina Alpacas, Victoria, who have yet to buy their first alpaca have gone to extraordinary lengths in their investigation, visiting numerous shows and working free of charge for a number of studs, with Deborah now working for a number of alpaca breeders on a part time basis.

"Prior to commencing our research on the alpaca industry, just over 12 months ago, we did not know suris existed. Based on the ratio of suris to huacayas this is probably not surprising for a newcomer to the industry. Armed with considerable information provided by the AAA Inc. our first step was to focus on our purpose and decide what direction we wanted to take to achieve that purpose. This initially was a difficult task as the alpaca breed allows for so many choices. Like many others, we were looking for a lifestyle change (hence our decision to become part of the alpaca industry) but needed to ensure that our venture had a real capacity to become a successful business and provide real investment opportunities. From our previous business experience we understand the importance of producing a marketable product that is not only a quality product but a unique product.

We see the Australian suri breed providing these two essential qualities now and into the future with still considerable room for development and growth. These are important considerations for any new alpaca breeder (and even a seasoned alpaca breeder). Don't get us wrong, over the past 12 months we have met many very dedicated, hardworking huacaya breeders who have spent considerable time (years), capital and resources developing their bloodlines and genetics to produce quality animals and fleeces. However, as newcomers getting started and looking for a product that has the potential to provide a reasonable return on investment we believe our future is with the suri." ■



We must be able to make the most glorious products from suri, yet a low technology civilization was surpassing our current efforts over 600 years ago.

Despite the lack of local quality processing expertise, Bumble Hill is pursuing its goal of producing suri fibre of such quality and performance that the European mills will be seduced into experimentation and will finally produce yarn and products befitting suri fibre."

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Don Julio Barreda 1919-2006

INDUSTRY ARTICLE by **Mike Safley** > USA

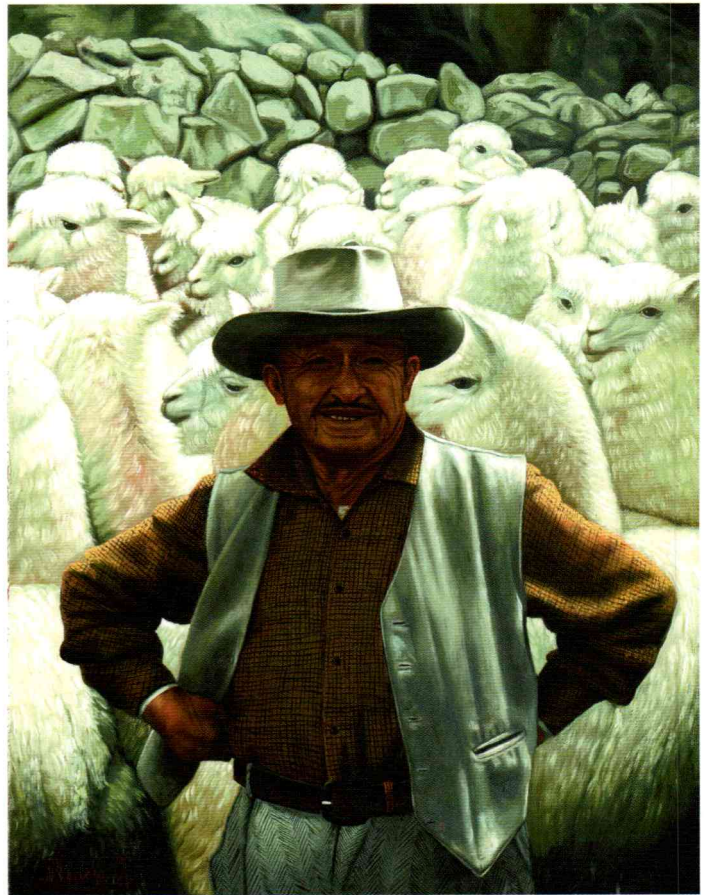
Julio Barreda – an artist who extracted pigment from the invisible DNA curling in the plasma of an ancient species – painted his vision of perfection with balance and harmony across the genotype of a herd sixty years in the making. His extraordinary accomplishment, a gift from God, touched each of us.

Don Julio stood all of five foot six, hair combed straight back – black until the day he died, nut brown skin, burnished and creased by an Incan sun and the cruel, cold wind that comes to rest in the marrow of a man born of Macusani's high plains. Don Julio was a giant in the alpaca world – the Godfather. He was born of a Quechua woman and an accountant father from Arequipa, who died, leaving little Julio to be raised by his mother and grandfather on a vast hacienda in the province of Carabaya. His relationship with alpacas began almost before he could talk.

Don Julio walked in two worlds. The first was the Quechua's tradition-bound land, where the ocarina's plaintive melody betrays the loneliness of the vast sierra, and where the very lives of the shepherds are dependent on the sustenance of their alpacas. Julio Barreda's second world was filled with the books of Gregor Mendel and studies in world politics and classical music. Portraits of good and evil – Mao Dze Dong, Fidel Castro, Winston Churchill, and Abraham Lincoln – lined the walls of Accoyo's dining room.



l to r: Mike Safley, Don Julio Barreda and his daughter, Elena



Julio Barreda understood political tyranny first hand, spending years negotiating to save Estancia Accoyo from the Peruvian government's confiscatory land reform schemes. His bullet-pocked Studebaker reminds Accoyo's visitors of the Sendero Luminoso's reign of fear. But Don Julio, always the optimist, told me in 2004 at the age of 84 that he wouldn't be selling alpacas for a while because he needed to build his herd for the future. His passion for alpacas came from an ageless heart.

I have never known a more gracious human being – always willing to share his knowledge and wish a man well. When he visited my ranch in 1991, he spent his first day touring and inspecting the animals. Don Julio was always polite. I tried, as hard as I knew how, to encourage his assessment of my herd. He declined, and in retrospect, I suspect that he was following a principal taught by my mother early in life – if you can't say something nice, don't say anything at all.

That night, as dinner arrived at the table, I naively informed Don Julio, "One day I will breed better alpacas than you do at Accoyo." (I was only half kidding). He paused, fork in mid-air, and said, "Thank you for telling me that." After carefully chewing his steak, Don Julio finished his reply, "A man always walks a little faster when he knows someone is behind him."

As the evening wore on and dessert arrived, I pressed Don Julio to tell me how long he thought it would take my herd to catch up to his – even after he walked a little faster. After many attempts to avoid my question, he said, “Forty years.” That set me back. I was forty-five, and I couldn’t imagine forty more years playing catch-up. I finished my pie in silence. Finally I asked Don Julio, “How long would it take if I had Accoyo males as herd sires?” He immediately responded, “Four generations!”

I didn’t fully understand the implications of his answer way back then, and not long after Don Julio’s visit, I began to research the science of animal breeding, Mendel’s laws of inheritance, and the concept of heritability. I was intent on catching my mentor. I am, of course, not even close to catching the man I so much admired – more like a charging turtle than a hasty hare. But Don Julio’s gift was a vision that will continue to guide my days as an alpaca breeder.

I remember admiring a particular macho in the Canchones above Don Julio’s home, and after I pointed him out, Don Julio replied without hesitation, “He’s a Shere Kahn son.” “How can you tell?” “By the two wrinkles behind his nostril”, he replied. I looked, and sure enough, there they were, the shape of a clipping from my thumbnail. My eye sharpened, I began seeing a number of similar males in the herd, all with two wrinkles behind each nostril. I went back to the Tejada house, my residence while in Macusani, thinking about what I had learned. The next morning Don Julio arrived early at 6am, anxious to talk with me, saying, “You know what I told you about Shere Kahn’s wrinkles yesterday?” “Yes.” Then, almost in a whisper, he asked, “Please, don’t tell anyone.” Every animal breeder has his secrets, and now I wonder how many Don Julio took to his grave. Will his magnificent bloodlines live on?

Someone once said to me, “You made Barreda famous, writing all those books and articles about him.” I felt a flush of embarrassment at the thought that someone might give me credit for Don Julio’s fame. Don Julio had a passion for alpacas before most of us were born. He was famous long before I bought my first alpaca in 1984. Rigoberto Calle Escobar in his 1984 book, *Animal Breeding and Production of American Camelids*, said that Mr. Julio E. Barreda is one of the most prestigious alpaca breeders in Peru. Machos from Accoyo are servicing hembras on Estancias throughout the Peruvian Altiplano with positive effect on the breed. Don Julio’s fame and his magnificent legacy will continue to grow with every cria conceived from Accoyo’s loins.

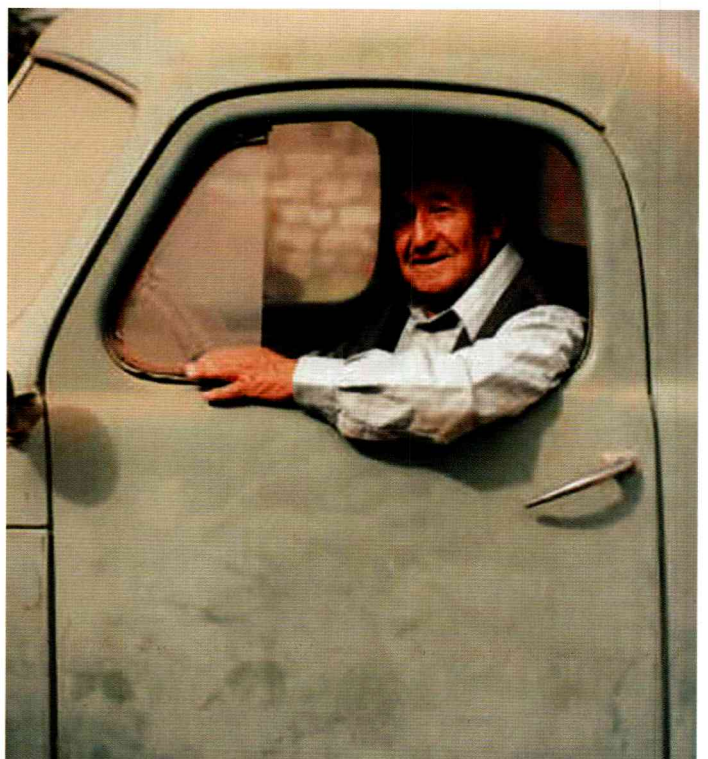
I remember the first males he sent to Australia: *Ledgers Dream*, *Highlander*, *Inti*, and *El Dorado*, as well as the ones he sent to the United States in 1994: *Caligula*, *Felix*, *Camillo*, *Drazno*, *Torbio*, and *Ramilo*. All were personally selected by Don Julio from Accoyo’s Majada de Plantel. Each was magnificently, powerfully potent, and they

transformed international alpaca breeders’ perception of excellence. I have always believed that, in many ways, these were the finest machos ever to come from Accoyo. I asked Don Julio why he sent his best males. “They were my business cards,” he said. “I wanted Australia and the United States to remember Accoyo.” We will, Don Julio, we will.

Accoyo quickly became the alpaca world’s Mecca. Every breeder dreamed of making the pilgrimage and having a picture taken between the suri and huacaya logos, drawn with precision on the white stucco facing the doorstep to the casa. Don Julio is the alpaca community’s rock star, and everyone wanted his autograph, a handshake, and an opportunity to pay respects. He was always polite, patient, and willing to pose with a new friend for a photo.

Julio Barreda was the mayor of Macusani three times, and he could hold a crowd in his palm, bringing tears to a room with his eloquence. He was a compassionate champion of the Quechua people, making heartfelt appeals for the little children with no shoes, noses crusted with infection and eyes dulled by hunger. Julio Barreda quoted the bible, reminding us that Jesus calls us all to comfort the orphans and the aged. He touched our hearts.

I last saw Julio in November of 2005 at Accoyo, his beloved daughter Elena by his side. He was vigorous, his mind clear, barking orders to the cowboys, showing us his finest stock. I know that God has welcomed Julio. He is there with *Shangri-la*, *Aribal*, *Lord*, and *Shere Kahn*, in the vast valleys of ichu grass, made green by water distilled from Lake Titicaca. Here on earth, Don Julio walked God’s path with unsurpassed grace, and I know today that Julio is at peace – a shepherd surrounded by his cria. We will miss you, Don Julio. ■



Highlights from Sydney University Alpaca Research

RESEARCH AND DEVELOPMENT ARTICLE by **Dr. Katherine Morton** > *Post-doctoral Research Fellow*
Centre for Advanced Technology in Animal Genetics and Reproduction (ReproGen), Faculty of Veterinary Science,
The University of Sydney, 2006.

Artificial insemination research update. Post-doctoral fellow Dr. Katherine Morton is undertaking research, with PhD student Kirstie Bailey and Honours students Zamira Gibb and Sarah Wilson, in alpaca artificial insemination. The main funding source for this research is RIRDC, with some contribution being made by the AAA Inc. The following article is an update of their progress. In addition, Katherine also provides a description of her attendance at the First International Society of Camelids Research and Development (ISOCARD) conference during which she presented a paper on alpaca sperm sexing. **Iona McKinnon, Chairperson** > AAA Inc. Research & Development Sub-committee



Australian Government
Rural Industries Research and
Development Corporation



Our recent research has focused on a number of areas. We are continuing to develop the semen collection procedure and establishing semen handling and liquid-storage protocols. We have found that it is relatively easy to train male alpacas for semen collection as the semen collection procedure is fairly straightforward. What is difficult is to collect consistently good semen. Previous researchers have also noted this, and we are observing large variation in the quality of alpaca semen between males and between ejaculates from the same male. The collection of good quality semen is important as semen quality dictates its uses: poor quality semen will not survive chilling and/or freezing, whilst good quality semen will most likely survive both processes. Previous studies have found that sperm motility was improved by the presence of females during semen collection. From our experience we have found that females are an integral part of the training process. However, the results from our study have indicated that the presence of females during semen collection does not increase semen quality.

My work freezing epididymal alpaca sperm continued with 27 pairs of testes donated from a castration day held in Victoria. The testes were transported to Sydney, refrigerated overnight and the sperm harvested the following day. Of the 27 pairs of testes collected, ten were from males aged two years and over. The sperm harvested was highly motile, around 60-80%, which is extremely good considering it was harvested 24 hours after castration! The sperm was then diluted in a lactose extender and frozen. All 27 pairs of testes have been fixed in formalin and are currently being processed at our histology lab. The data will be used in another of our experiments which aims to determine the relationship between age, testicular size and development, and semen quality.

So far we have about 40 pairs of testes which have been sent to us. We're hoping to receive more to increase our sample size.

The group's Honours students, Sarah and Zamira, are progressing very well. They have been spending two days a week in the laboratory learning to collect and assess alpaca semen. As part of their honours projects they have a number of assessments throughout the year. Their first assessment was to write a two page proposal for their research, similar to those researchers write to granting bodies. Their second assessment was a 10 minute PowerPoint presentation on their work. Both Sarah and Zamira received high distinctions for their first assessment and gave outstanding presentations. They answered questions on their topics with confidence. Sarah received a distinction and Zamira a high distinction for their presentations. Their third assessment is a review of the literature in their research area. Essentially they have to write a 20 page essay summarising all the previous research.

In early June Zamira began her experiment, which involves the addition of enzymes to alpaca semen to reduce the viscosity – the major hindrance to handling and dilution of alpaca sperm. Zamira's experiment is quite large and involved, dividing each ejaculate into 13 groups (12 treatment groups and a control group). Zamira has three enzymes at four different concentrations per enzyme to add to the semen and then assess the motility and integrity of alpaca sperm immediately after enzyme addition and at subsequent time intervals. Zamira's results so far are very encouraging; all the enzymes remove the viscosity within a few minutes of addition. As part of Zamira's experiment she has to manually assess the integrity of 95,000 sperm! Hopefully it won't dampen her enthusiasm.

Sarah is in the planning stages of her experiment. Sarah's experiment aims to identify the best diluent for the liquid storage of alpaca sperm. Sarah has been furiously researching the components of diluents and their roles in the maintenance of sperm metabolism and integrity. She has identified a number of diluents that she plans to use and is in the process of drafting an experimental plan. We have been conducting a number of pilot studies (mini-experiments) investigating a number of different diluents (extenders), dilution rates and storage temperatures for chilling semen.

In April I travelled to the United Arab Emirates to attend the First International Society of Camelids Research and Development (ISOCARD) conference.

My work entitled "Preliminary development of sperm sexing technology in alpacas" was selected by the conference committee for an oral presentation. The conference was held in Al-Ain, home of the United Arab Emirates University. The conference was opened by HH Sheikh Nahayan Mubarak Al Nahayan, Minister for Higher Education and Scientific Research, and Chancellor of the UAE University (*Figure 1*).



Figure 1: His Highness Sheikh Nahayan Mubarak Al Nahayan opening the conference.

Over 300 delegates from 30 countries attended the ISOCARD conference. The idea for the society originated with Dr. Bernard Faye (a French camel scientist) and the society was founded at the conference. Elections were held for the executive committee and the results of the election were as follows:

Chairman > Dr. Bernard Faye (France)

Vice-Chairman > Dr. Abdelhai Guerouali (Syria)

Secretary > Dr. Ghaleb Alhadrami (UAE)

Treasurer > Dr. Claire Whitehead (USA)

Public Relations Officer > Dr. Katherine Morton (Australia)

Scientific Affairs Officer > Professor Mohammed Bengoumi (Morocco)

The International Society of Camelids Research and Development is a non-political, non-religious and non-profit organization of camelids scientists. ISOCARD aims to provide an opportunity to scientists working on camelids to exchange information, establish a perennial organization of the camelid scientists in the world (through the foundation of ISOCARD) and promote the research on camel and small camelids besides funding agencies.

The objectives for ISOCARD are to:

- > Provide international scientific status for camelids sciences
- > Promote scientific publications in camelid fields
- > Promote the contributions of scientists to the development of camelids farming
- > Organise International camelids conference every three years
- > Encourage the exchange of information on camelids between members and different networks and involved organisations
- > Establish and maintain relations with other organisations whose interests are related to the objectives of the society

ISOCARD membership is available to camelid scientists, veterinarians and breeders. For more information about joining ISOCARD please contact me.

The conference was a fantastic opportunity to meet other camelid scientists and to discuss various aspects of research and production of camels and camelids. The conference sessions were divided into a number of sections: physiology, reproduction, diseases, medicine and surgery, pharmacology, genetics, nutrition and production, biology and anatomy and dairying.

All the presentations were very interesting but one that I found particularly interesting was Dr. Skidmore's presentation on the timing of insemination of female camels. Dr. Skidmore's research had shown that the most appropriate timing of insemination is 24 hours after GnRH injection (to induce ovulation) and a minimum of 150 million motile sperm are required for insemination. Using these parameters Dr. Skidmore is able to achieve pregnancy rates of 53% after the insemination of diluted fresh sperm which is similar to pregnancy rates in camels after natural mating. My speech was in the same session as Dr. Skidmore's presentation; it focused on my work developing sperm separation techniques in alpacas (*Figure 2*). ➤

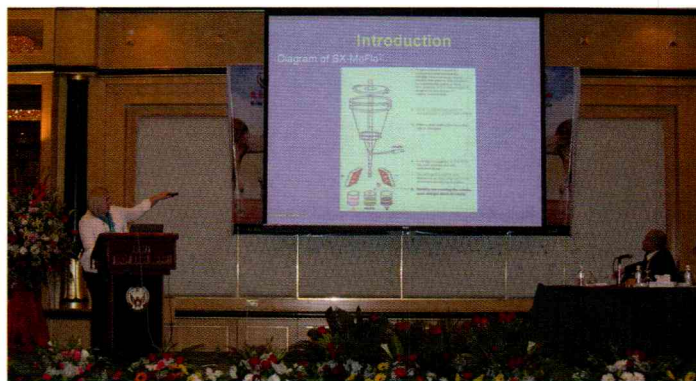


Figure 2: Explaining the process of sex-sorting to delegates at the conference.



Figure 3. Speakers in the reproduction session at the ISOCARD conference.

Another fascinating presentation was from Dr. Claire Whitehead, who presented results of her study into the effect of maternal supplementation of vitamin D, and transplacental and transmammary transfer to neonatal llamas and alpacas. The results of Dr. Whitehead's study demonstrated that supplementation of late gestation alpacas and llamas using injectable vitamin D products improve the vitamin D status of crias at the time of their birth.

On the final day of the conference, the delegates were treated to a field trip. First we went to Abu Dhabi to see camel racing and visit a prominent camel racing stable. The camel racing was amazing! There are camels of all ages, and the races are different lengths depending on the age of the camels. Since the outlawing of child jockeys the camels have remote controlled robots as jockeys. The trainers drive along the inside of the track operating the robot jockeys while the spectators drive (yes, drive!) around the outside of the track (Figure 4).



Figure 4. Young camels racing in Abu Dhabi

We then drove back to Al-Ain to visit the Al-Ain dairy which produces and processes both cattle and camel's milk. Both types of milk are readily available and all through my trip people kept explaining the virtues of camel's milk (supposedly it cures anything from a sore toe to a stomach ache!). Camels produce around six litres of milk a day which is considerably lower than dairy cattle. However, they don't require the same amount of feed.



Figure 5. A milking camel for sale at the camel souk (market)

The camel's udder is covered (Figure 5) to prevent the young calves from drinking which allows the young calves to remain with their mothers.

During my visit to the UAE I also visited the laboratory of Dr. Skidmore. It was a fantastic opportunity to look around her laboratory and camel facility and to discuss various aspects of research. Dr. Skidmore is conducting similar research to our project in camels. Some of Dr. Skidmore's work involved producing camel x llama hybrids by artificially inseminating camels with llama semen.



Figure 6. Camel x llama hybrids bred by Dr. Skidmore

Anyone interested in more information about our research, or participating in research is encouraged to contact me:

Dr. Katherine Morton, *Post-doctoral Research Fellow*
Centre for Advanced Technology in Animal Genetics
and Reproduction (ReproGen),
Faculty of Veterinary Science,
The University of Sydney, 2006.
Phone: 02 9351 3463/ 02 9036 4473
Fax: 02 9351 3957
Mobile: 0412 187 824
E-mail: kmorton@vetsci.usyd.edu.au ■

Congratulations to Mr John Fisher, OAM

INDUSTRY ARTICLE by **Ian Davison** > Illawarra Alpacas, NSW

In the recently published Queen's Birthday Honours List, John Ernest Fisher, of Fire Mountain Alpacas, Cambewarra NSW, was awarded a Medal in the General Division (OAM) of the Order of Australia "for service to the community through youth, educational, and health organisations."

Most alpaca breeders would know little of John Fisher, other than that he is a relatively recent addition to the community of Australian alpaca breeders. His is the least familiar face of Fire Mountain Alpacas, the others being his well-known wife Carolen, and beguiling daughter, Emmajane.

There are some who would remember him as the surprise purchaser of elite alpacas at two successive National auctions. Others may recognise his name as one of the founding directors of Australian Alpaca Fleece Ltd., of which he is a major shareholder, and a valued adviser and contributor. Some would recall his easily understood articles, *Taxing Tales*, published in *Alpacas Australia* and *Town and Country Farmer*, explaining the special implications of Australian tax law to alpaca breeders. Still others may know him through his involvement in, and commitment to, the SRS® Breeding System, and his contribution to the future progression and systemisation of that program in the Australian alpaca industry.

But there are few who would know of his diverse background, ranging from accountant to adventurer, author to adviser, and farmer to philanthropist. He was, until he became an alpaca farmer in 2003, a senior partner in Coopers Lybrand, in which capacity he was at various times adviser to a range of governments and to various United Nations agencies in Asia. He is the author of numerous articles, books, and papers on accounting issues. And he has been a taxation adviser to many major Australian companies. More intriguing is his feat of single-handedly flying his Tiger Moth from England to Australia in 1996, raising \$20,000 for CanTeen, the cancer support group for teenagers. Not content with having flown the journey, he did it overland in a Porsche as part of the 2000 London-Sydney Rally. He is yet to make the journey by sea, but did do a nine day raft trip down the Franklin in early 2006, in what one can only suspect was a familiarisation exercise for a sea journey.



But "services to the community through youth, educational, and health organisations"? Perhaps John's least known interest is philanthropy. It began as a member of the Tasmanian Government Youth Finance Advisory Council in the early 1970's, later President of the Tasmanian Youth Council, becoming Treasurer and Deputy President of the National body and Treasurer to the Asian Youth Council in 1976. He was founding member of Holmesglen College of TAFE, Victoria; and founder of the Financial Advisory Service to the North Richmond Community Health Centre. Still in Australia, he was Chairman of the Student Education Committee of the Institute of Chartered Accountants, the Centre of Excellence of the Australian Society

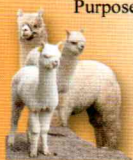
of Certified Practising Accountants, and the National Taxation Advisory Panel. He was a member of the Board of Governors of the Tax Research Foundation. Whilst living and working in Asia, he became an inaugural member of the Singapore-Australia Business Alliance Forum, and Director of the Singapore-Australia Business Council. That is all impressive enough, but his crowning accolade is as a founder, and now Deputy Chairman and Treasurer of the Hoc Mai Foundation, a partnership between Sydney University and Royal North Shore Hospital, which exists to improve medical services and promote medical education for the 80 million people of Vietnam.

Not a bad call for an alpaca farmer from Cambewarra. Little wonder, then, that his is a face seen only rarely in the show ring. *Congratulations, John, from all your friends in the Australian alpaca industry!* ■

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Harry's Aussie Alpaca Odyssey

A THREE MONTH WORKING VISIT FROM A YOUNG PACA-POM

INDUSTRY ARTICLE by **Jeffrey Farman** > Flowerdale Estate Alpacas, VIC



For three months this year we employed a bright, young student from the UK, keen to learn about alpacas. He lived on the farm with us and with guidance, was able to turn his hand to just about anything. Feeding, halter training, showing, fencing, pasture improvement, irrigation installation, paddock clean-up and much more. We believe he learned a lot, and had a great time too.

In the middle of last year, out of the blue, I received an e-mail from Harry Douglas, seeking an opportunity to visit Australia and work for three months in his Gap Year, between the end of school and the commencement of University. Harry had e-mailed other breeders in various parts of Australia, showing a keenness to learn and work. We considered the request rather unusual and intriguing. He was a total stranger, unknown to us or anyone we knew. What if he turned out to be unsatisfactory and we had to let him go? I replied to Harry to gain further information.

We did have several large farm improvement projects lined up for 2006 and an extra pair of hands would be very useful. There was the paddock improvement program requiring cultivation and re-sowing, the upgrading of the maternity paddocks with the importation of 10 cms of topsoil and installation of a large irrigation system. There was also a large creek protection project to fence off about 400 metres of the King Parrot Creek. We also needed to train alpaca juniors for the summer shows and hand feed a large group of ET females in preparation for our May ET program.

Harry's parents had bought their first four alpacas about six months earlier. This explained his keenness to learn. We communicated for a couple of months, references were supplied and finally I advised Harry that we would proceed if he could agree to our job description and was prepared to sign a work contract. We were keen to make our conditions of acceptance as clear as possible and avoid any misunderstandings. By late November we had a signed agreement. Harry would work one day a week in the gardens of our Flowerdale conference centre property and four days on the farm, whilst being on call to assist with conference centre work as required. He seemed keen to take on anything.

Early January Arrival. On January 9th, Harry touched down at Melbourne Airport. On the way to the farm we discussed what his expectations were while here in Australia. This led to me promising that he would not go home without seeing some kangaroos.

Harry had left a metre of snow back home in Northumberland, near the Scottish border. The day after his arrival it was 47°C. We advised Harry to purchase a farm hat and use plenty of sun protection. He did.

Surprise experience. On his first day with us he did something he never even considered he might try; shearing an alpaca. He said, "The experience was very interesting and the alpaca and I are both still alive to tell the tale." During the shearing process he was given the opportunity to skirt fleeces and grade them for quality. Then a few days after joining us Harry sat in on one of our two-day, weekend workshops for new breeders. He was included in the range of activities that included halter training, chuckering, weighing, body condition scoring, nutrition, mating, spit-offs, birthing, cria care, weaning, shearing, fibre classing, vaccinations, drenching, toenail trimming and record keeping. He found the depth and breadth of the material covered was quite a bonus for someone keen to soak up all the information they could get on alpacas.

Harry's farm activities were supervised by Haydn Farman, our farm manager. Soon after arrival they drove into Seymour to purchase a pair of sturdy farm boots that would hold him in good stead throughout his visit. On returning they got started on herd vaccinations and toenails. This seemed like quite a daunting task with almost 200 animals to do, over several days and in 40°C heat.

Respite and recreation. After a week of heat and dust, it was not difficult to persuade Harry to take a break and go for a trail ride on the motor bikes. We set off up through the pine plantation opposite our property for an afternoon's riding. After an hour on the trail we rode up through the trees to the top of a long steep hill, where we came out into an open area and found ourselves in the middle of a large mob of roos, bounding off in all directions. Harry was really excited. My promise to him was fulfilled.

Harry mixed well with the locals and quickly became a favourite with the Aussie characters at the Friday night Landcare BBQ at Strath Creek. He had to put up with the expected comments about the 'bloody Poms' but handled it well, retaliating with forthright references to the test cricket and the rugby.

Royal training. One of Harry's jobs was to assist with the training of juniors for the Canberra Royal and Wodonga Shows. Following some helpful advice from Haydn, Harry took the juniors out one at a time with an older, previously trained and more experienced female to lead the way. He found that not only does this method give confidence to the novice it significantly speeds up the learning process. Just fifteen minutes a day over two weeks and the youngsters were ready to go.

During the trip to the Canberra Royal we took the opportunity to do some sightseeing. Our first stop was at the small town of Glenrowan, where Ned Kelly and his Gang staged their final shoot-out against the police forces. After looking around a fascinating museum on the life and times of Ned Kelly, we agreed to follow up this experience by planning to visit the Old Melbourne Gaol, where Ned Kelly was executed. Not only would it be fascinating for Harry to find out where Ned Kelly was imprisoned and later hung, the history of Melbourne's crime and early prison systems would also be very interesting, particularly as many of the prisoners came from England and Ireland. (Something we were not about to let him forget).

Dog trumped by alpacas. Our next stop was near Gundagai, famous for the statue of The Dog on the Tuckerbox. While we were having our lunch Harry and I decided to let the alpacas out of the float, onto a grassy, green area next to the car. They were happily grazing when a bus stopped nearby and from it disembarked a large group of Japanese tourists. Ironically they were far more impressed with the alpacas than they were with the iconic statue of The Dog on the Tuckerbox. Lots of photos were taken of the alpacas with the smiling tourists before we got them back into the float and carried on with the final leg of our journey.

The Canberra Royal was the first Australian show Harry had seen and he was very excited as he took two of our alpacas into the ring. The first alpaca he showed was exhibited in a large class of juniors and although she was called forward by the judge she unfortunately did not win a ribbon. However Harry was thrilled to accept first place in the junior brown female class on his second trip into the ring.

Hot, hot, hot. Dry, dry, dry. Before coming to Australia, Harry had not been aware that during the long summer months much of Australia (as well as being very hot) is very short of water, including Flowerdale. One of his tasks was helping us to establish a new irrigation system in the maternity paddocks whereby large sprinkler heads would be placed at points on the fence lines. As each sprinkler pumps out 300 litres of water a minute, we worked out that we would use about 20,000 litres of water



a day when we used the sprinkler system causing a shortage of water in the lake at the height of summer. To counter this problem, we spent some time repairing an old broken down water bore on the property and piped it into the lake. We were amazed when we realized the bore pumps out almost 50,000 litres of water a day; as such an amount will easily keep the lake full of water all year round whilst using the irrigation system.

Having taken delivery of 400 metres of high capacity water pipe and the required fittings, Haydn and Harry got on with installing the new sprinkler system. As a result of various problems they encountered along the way, it took them three weeks to complete the installation. It now works perfectly and the two front paddocks will stay green all year round without running short of water. What a treat is in store for the pregnant mums next summer.

Busy with babies. During Harry's stay he was kept busy with around thirty cria born on the farm. Every cria was weighed once a day for the first week after the birth to make sure it received adequate nutrition and was putting on weight. A few of these new cria struggled to put on weight in the first few days so Harry gave them the odd bottle-feed to try and ensure a healthy start to life. He was also kept busy with matings and spit-offs. The late summer/autumn period is a time of great activity with the alpacas so he could not have come at a better time to learn and give us a hand.

Late April departure. After three months working on the aforementioned tasks, and some hard-earned leisure time spent enjoying some cultural and tourist activities, Harry left towards the end of April. He then traveled by coach right up the east coast of Australia for a month, with a backpacking group. He made friends easily and saw quite a lot of the country, which was a nice conclusion to his Australian odyssey.

So how did it go for us? I can sum up the experience by saying, "Everything about Harry's visit was a positive for us. He was cheerful, helpful, obliging and willing to learn. He made a real contribution to our progress on the farm during his time with us. We would certainly be inclined to consider any future request for work experience in a positive light." ■

Is Crimp Important? (WHAT DO YOU THINK?)

FLEECE ARTICLE by **Cameron Holt** > International School of Fibres

Introduction

Much has been written about crimp and the relationship with curvature, frequency and microns, as well as curvature and compression. Many of the comments you hear are fact and fiction. We have heard the crinkle theory, the popcorn theory and various statements like “crinkle provides bulk which is created by the air pockets” (processors have concerns re. the lack of bulk in huacaya fibre – products too heavy) and of course, that “crimp frequency is a reliable indicator of fineness”.

I will demonstrate quite clearly that well-defined crimp is more consistent in its relationships with crimp frequency, curvature and micron. The facts are based on measurements of some 261 varying types of huacayas from Australia and the USA. The alpacas varied for age and fleece type. The total samples included elite and excellent fleece types with a character score of “1”, and inferior types which had a character scoring of “6”. The results from these alpaca fleece samples formed the basis of this study. This is factual data, not unreliable speculation, but solid evidence and along with other published /unpublished data will, I hope, answer the question for you, “Is crimp important?” You will also need to decide on which crimp type/style you feel is the most desirable for your breeding program.

FACT: Results from any animal or fleece study are only as good as the ‘target group’ being studied and the correctness of protocol and of measurements taken.

As a lot of comparisons are made between huacaya and merino wool, I have listed the following information to help you when making comparative judgments.

What is the difference between merino wool and huacaya?

Believe it or not, merino wool and huacaya have much in common even though they have some critical differences. Some of these differences and similarities are demonstrated in this article.

Similarities: Both follow the same principles for forming follicles and growing fibre. Fibre growth in huacaya and merino is affected by nutritional change in a similar manner.

Merino and huacaya are both protein staple fibres. Both are referred to as a wool fibre.

Both display a bilateral structure in the internal cortical component of the fibre (hence the crimp).

They display a crimp in the staple (and individual fibre) and have similar attributes relevant to that crimp. Merino and huacaya are both capable of deep crimping at all crimp frequencies (CPI).

Merino wool and huacaya are processed in a similar manner (both woollen and worsted). The huacaya fibre is in need of more anti-static treatment and is sometimes run at a slightly slower speed than the merino.

Differences: Merino has a higher curvature when comparing microns between the two. This is most likely due to the higher number of crimps per inch with the merino. Huacaya fibre does not have the high number of crimps per inch, which is found in the fine and superfine merino but is more like the medium to stronger wool. Alpaca (huacaya) currently is probably more akin to the SRS® style of merino than the traditional merino. However both merino and huacaya follow similar principles for curvature. The compressibility (bulking properties) is similar in principle but the huacaya is below the merino on the scale of measurement (Figure 1), due to the lower crimp frequency and curvature size.

Figure 1: Micron / Curvature

MERINO	curve	ALPACA
micron 17	130	
18	120	
19	110	
20	100	
21	90	
22	80	
24	70	
26	60	14 micron
	50	16
	40	20
	30	30
	20	38
	deg mm	

approx values across general herds

with the increase of micron. This medullation is not guard hair (straight, brittle, broadest micron, harsh and usually dull). Merino wool is for all intents and purposes, free of guard hair. The huacaya fibre is not. Due to this medullation huacaya fibre may have marginally improved insulating properties and be slightly lighter in weight.

The cuticle cells, which are the external cells, overlap with a different scale height:

Merino 0.8 Micron

Huacaya 0.4 - 0.3 Micron

This lower scale height on the huacaya creates a greater softness to the hand. Some people suggest this softness is the equivalent of 2-3 microns.

Merino wool does not vary greatly for mean micron from its second to latter fleeces (the first year's fleece tends to be around 1.5-2 microns finer than older fleeces), whereas the huacaya fleece data indicates that the fineness for huacaya tends on average to gradually become broader for up to around 5-6 years of age.

A Summary of the Important Research Data Findings were:

- > The most important observation for the breeder was the inconsistency of results (due to the high variability) for crimp frequency and micron across the entire population. These results would be indicative of a typical alpaca herd.

This tells us that across the entire National herd, crimp frequency on its own is not a reliable indicator of micron. However, in very well crimped fibre some consistency is evident, which would suggest selection for this expression of crimp would be more reliable albeit only around 50% accurate. If growers breed well defined crimped (good/excellent character) fibre their consistency of evaluation would be more correct.

FACT: Crimp frequency (particularly average to poor character expressions) is not a reliable indicator of micron across a typical alpaca herd. Good/excellent charactered fibre is more reliable albeit only around 50% accurate.

- > A second important observation was that only the good/excellent charactered wools displayed any consistency between the samples for curvature and its relationships with other measured characteristics. Data indicated that micron was shown to have a greater effect on curvature than crimp frequency or character expression. Alpaca (huacaya) does not have the curvature value that is seen in merino fleece (Figure 1).

This consistency in the good charactered fibre would enhance yarn performance (e.g. less fibre loss during carding and spinning) and fabric construction (e.g. softer yarn in the fabric). Breeding for a higher number of crimps per inch and a finer micron would also have a positive effect on the fibre as to the performance in the yarn for bulking properties.

FACT: Given a similar micron, huacaya does not have the same higher curvature value to that seen in merino fleece.

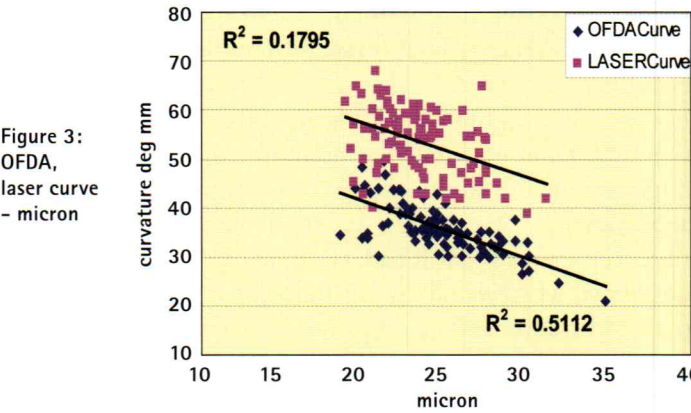
- > Another observation was that each of the groups in the research that were classified for definition of character averaged around six crimps per inch. However it was noticed that as the crimp became plainer the micron became broader (Figure 2). This relationship has also been seen in research of merino wool [Duerden1929].

This reinforces the importance to the breeder to breed for well-defined crimp to maximize potential fineness.

Note: When testing for curvature, measurements were recorded on both OFDA and Laser machines (same samples), to identify repeatability between both machines. The significance of the difference in curvature measurement results between both testing machines was of concern (Figure 3). There was an average difference of 17.4 deg mm.

NUMBERS (261) CHARACTER GROUP	AVE MIC	AVE FREQ	AVE CURVE dg sq mm	AVE CV & SD of CURVE		AVE CHARACTER RATING	AVE CV of MICRON
				CV	SD		
261 – 1 / 6	23.49	6.16	37.15	65.4	23.9	3.29	21.36
97 – 1 / 2	21.15	6.58	42.62	61.3	25.7	1.51	21.45
88 – 3 / 4	24.12	5.68	35.30	67.3	23.6	3.27	21.96
76 – 5 / 6	25.82	6.21	32.37	68.4	22.0	5.58	20.57

Figure 2: Average results for micron, frequency and CV micron (261 alpacas)



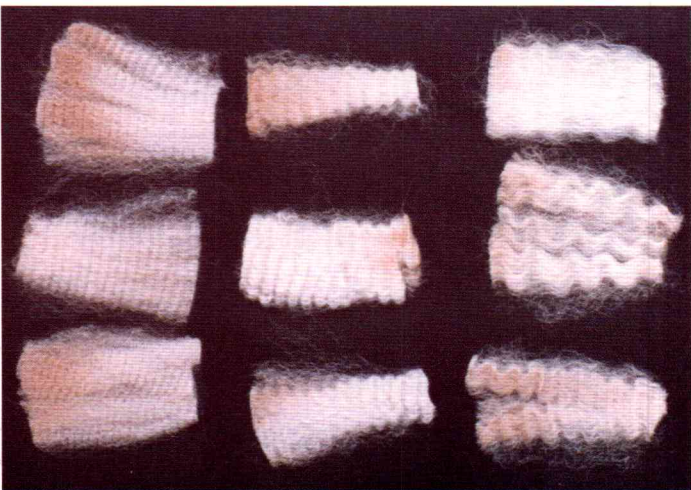
Meaningful comparisons of fibre curvature between different fleeces can only be made if measured by the same techniques. So stick to the same machine (OFDA or Laser), and if quoting curvature results list the test machine.

Crimp is the natural wave formation found in the Huacaya fleece. Crimp is a multi dimensional structure and how the crimp is expressed is determined by genetics (cortical cells – bilateral structure), amplitude, crimp frequency and micron.

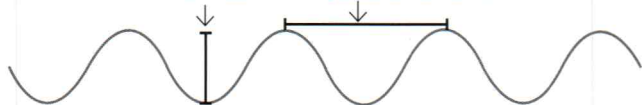
In the wool industry, a good well-crimped fleece is said to indicate that the sheep is well-bred and more likely to breed true to type.

Variation in the crimp can also indicate how the animal has thrived during the period of fleece growth. A well-defined crimp with its even structure is more likely to dry faster than fleeces that are lacking crimp definition and are cross-fibred.

Crimp comes in various sizes (frequency) and can also be shallow or deep in the curve (amplitude). The photograph below gives an indication of the various frequencies that can be seen in alpaca fibre ranging from 12 crimps per inch down to 2 crimps per inch. ➤



AMPLITUDE AND FREQUENCY OF CRIMP



Frequency is the number of times the fibre crimps (waves) per inch (CPI).

Amplitude is the height (deepness) of the wave. Deep crimp is said to have high amplitude.

Crinkle is a slang term introduced into the alpaca industry in 1991 by Cameron Holt (myself). This term has taken on a life of its own. Crinkle was used to describe the crimp in the individual fibre, particularly where the staple itself showed little or no regular crimp formation. The term originated in an educational class on cashmere fibre in approximately 1981 when a student, looking at the cashmere fibre, commented that it had a crinkle-like formation. To be correct, when we talk of the individual fibre, we should probably use the term 'Crimp', but who am I to remove such a descriptive word from the alpaca vocabulary?

Importance of Crimp to Processing

In the wool industry, crimp is considered an important factor in the manufacturing process (although not as important as uniformity of micron and length). Although the crimp loses its staple definition in scouring it maintains its individual fibre structure. The crimp is combed out during combing but the memory within the individual fibres enables the fibres to return close to their natural shape, tightening and strengthening the fabric. This adds to the elasticity and draping qualities of the fibre.

A well-defined deep crimp could indicate fibres of a more similar micron growing uniformly together in a tightly packed staple. Dr. Jim Watts suggests that these uniform deep well-defined crimps are associated with lower C of V.

In traditional merino of low to medium frequency crimped wools (lower number of crimps per inch, e.g. around 12-13 crimps per inch for 23 microns) the processor is able to produce yarns for both the worsted and woollen systems (Figure 4). Merino wools of high frequency crimped wools (greater number of crimps per inch, e.g. fine merino around 16 crimps per inch for 19 microns) enable the processor to produce 'more bulky' woollen yarns. The lower frequency deep crimped wools (less number of crimps per inch,

Figure 4: Micron – crimp per inch (CPI)

MERINO micron	CPI	ALPACA
16	20	
18	18	
19	16	
21	14	
23	12	13 micron
24	10	15-16
	8	19-20
	6	22-23
	4	25-26
	2	30

approx values for good quality wool & alpaca

SRS® types around 12-13 crimps per inch for 19 microns) of a similar micron tend to be smoother and leaner and have a kinder handle. These wools, where their length is above 75 mm, are desirable in the worsted system, although they can still be used in the woollen system.

Huacaya fibre, unlike Suri, exhibits varying degrees of crimp in the fleece (from around 12 CPI - 2 CPI). For good crimped alpaca fibre of 19 microns, the average crimps per inch were around 8 CPI. This indicates that alpaca breeders can breed for a higher crimp frequency (more CPI), that would be still suitable for both the woollen and worsted systems. The average CPI from the research was 6 CPI (Figure 2). A long way from a possible fine microned 12 CPI fibre.

McColl (2004) states, "Less crimp results in leaner, smoother, less bulky yarns and fabrics, an attribute for worsted constructions."

Dr. Jim Watts has identified in sheep, that the deep evenly formed crimped wools usually have more uniform fibre structure, density and lustre.



Trials carried out by the CSIRO identified sheep wools with a lower crimp frequency and a high crimp definition had a 3% improvement in card losses and up to a 16 mm advantage in the hauteur (top length). The well-aligned fibres (due to the high crimp definition) are usually more similar in micron and length and are generally softer to feel.

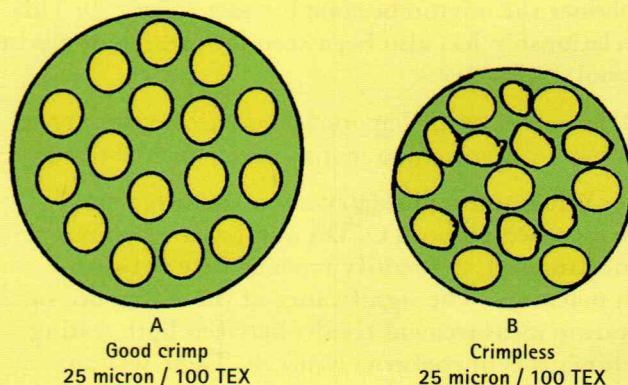
McColl (2004) states "(alpaca) mean fibre length after carding is also influenced, to varying degrees, by crimp... and the degree of fibre entanglement after scouring."

It has been shown in sheep that wools with crimp allow the processor to spin a yarn that is lighter due to its bulking properties. Crimp also helps in promoting improved cohesion of fibres whilst processing.

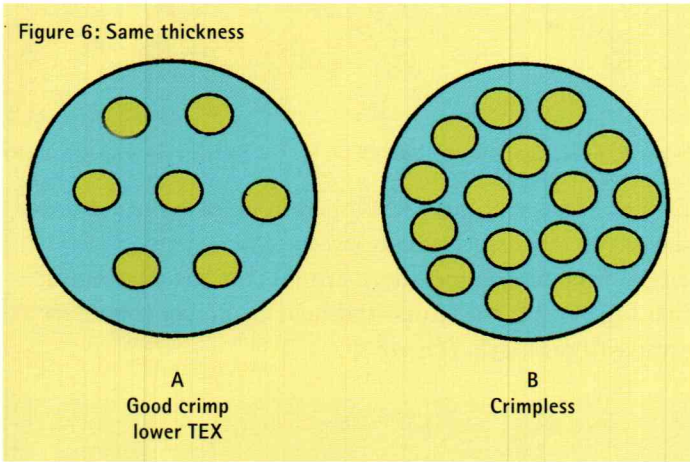
The same principals apply to huacaya.

Examples of the above would be to compare two samples of the same micron e.g. 25 microns, and the same weight e.g. 100 TEX. Sample (A) would create a more bulky yarn than (B) remembering they have similar numbers of fibres in the cross section of yarn. (Figure 5)

Figure 5: Same TEX



If you create two yarns of a given thickness (volume) with one yarn (A) being constructed with well crimped/crinkled fibres and another with little or no crimp or crinkle (B) there would be less fibres in the cross section of (A) which would equal low linear density (lower TEX), but still retaining original thickness of yarn, it therefore would be lighter in weight than the yarn (B). (Figure 6)



Note:
TEX – Universal Metric System for weighing yarns (most common)
TEX = Weight in grams per 1,000 metres
e.g. TEX = 500
therefore = 1,000 metres of yarn weighing 500 grams
(A TEX of 300 is finer than 500)

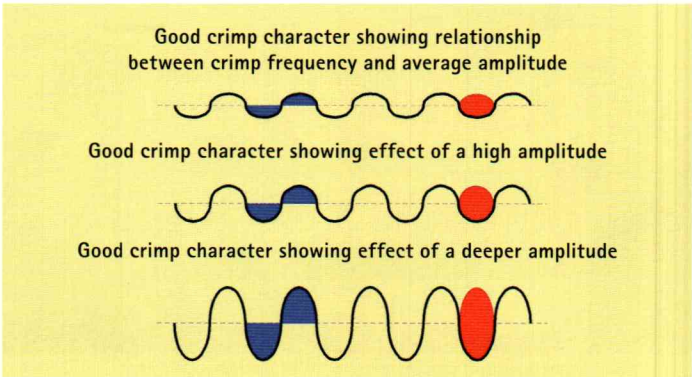
Dr Paul Swan, Senior Australian fibre researcher made the following comments about crimp and curvature in a study done for IWTO, New Delhi, April 1994, by Brims and Peterson, “Measuring Fibre Opacity and Medullation using OFDA – Theory and Experimental Results on Mohair”:
“... The evidence linking wool fibre crimp to wool processing efficiency and product attributes is now unequivocal. Fibre crimp is a determinant of both topmaking and spinning efficiency and has an important role in influencing the mechanical properties of wool fabrics, especially tactile properties. In an age of increasing specification and product differentiation, a measurement of fibre curvature is ideally suited on the role of specifying fibre crimp throughout the wool-processing pipeline. I believe that in the near future the distribution of fibre curvature will join those of fibre diameter and length in being the primary fibre dimensions specified in wool trading ...”

FACT: Averages can give you a good indication of trend but they also can hide some important information, particularly when the whole population is very scattered and therefore may not indicate the true picture.

Importance of Crimp to Breeders

How can we apply the research findings to our improvement of the alpaca herd? Firstly the data has clearly shown that selecting for well-defined expressions of character of the crimp (whatever frequency) is more likely to be successful due to its consistency.

Crimp is a highly heritable trait (around 0.5) and therefore selecting for a well structured staple and crimp expression provides a strong chance of this trait being passed on to the offspring. The illustration below demonstrates what you would expect to see for a good crimp with average amplitude through to a good crimp expression with deep amplitude.



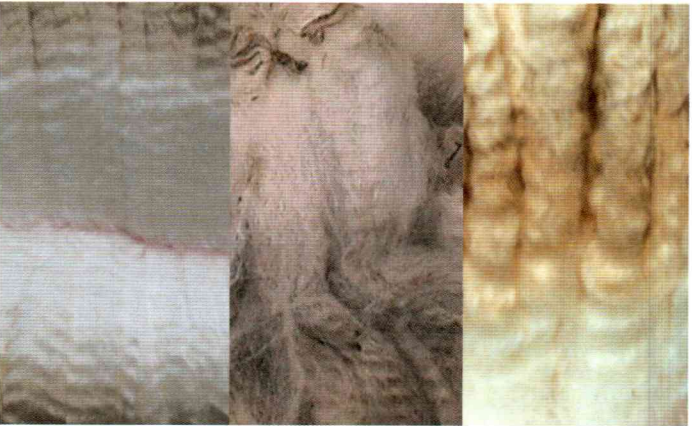
Now apply the amplitude assessment to the three photos below of degrees of excellence of character.



Comparing crimp character - Superior

You can see the definition of crimp structure and deep amplitude in these superior fleece samples above. This type of fleece structure was the most consistent of all the samples measured. This should be the aim of all huacaya breeders

Note: Irregular crimp definition and amplitude in this average group below when compared to the superior group above. The research data showed this group to be unreliable in evaluation. ➤



Comparing crimp character - Average

Note: Total lack of crimp structure shown below (although has crinkle). Consistency was overall worse than the average group. Females with this fleece structure can be improved using males with a fleece structure similar to the superior group. I would not recommend using males from these fleece types.



Comparing crimp character – Poor

Crimp is a good indicator for the alpaca breeder to estimate what is under the skin.

Research with sheep has shown that a well-aligned, good character fleece has a good follicle arrangement under the skin (Figure 7).

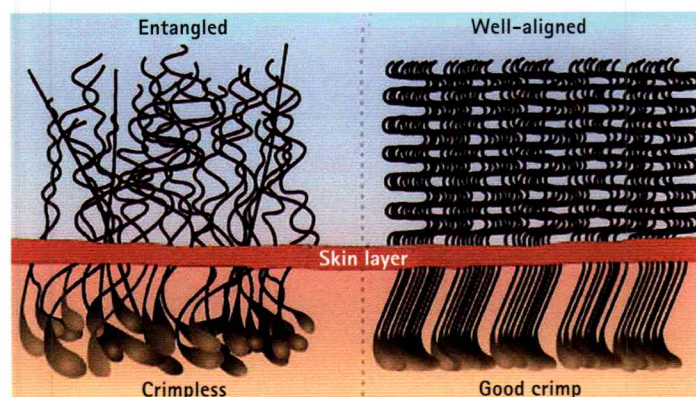


Figure 7 (Adapted from Dolling/Watts 1995)

In alpaca, if it's crimpless with no fibre alignment, it will usually be an open fleece. Under the skin the follicles will be formed in an unorganized fashion (Figure 8). These are sometimes referred to as fleece with crinkle, which usually have limited staple crimp structure.



Micro staples with well-aligned fibres are easily stripped without entanglement as shown left. This alignment is transposed to the carding and combing of the fibre. There is less entanglement and subsequent fibre loss with these fibres.

You will normally find that 'well-organized' (aligned) follicles are growing denser fleece due to the close proximity to each other in the skin.

Vertical skin sections

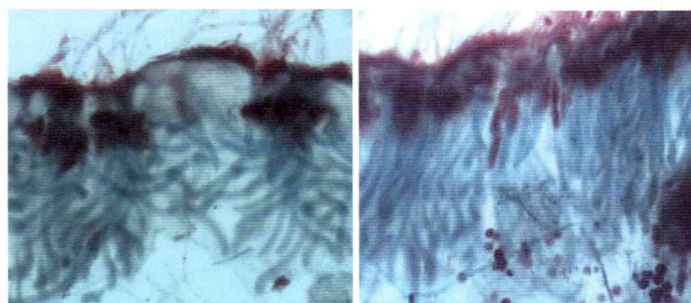


Figure 8: Entangled follicles (Holt 1995)

Reasonably aligned follicles

Dr Jim Watts with his SRS® merino breeding has shown there is a close association between follicle density and 'high crimp amplitude' (deep crimp). He has also found that high crimp amplitude and bold crimp contribute to greater fibre length. (Figure 9).

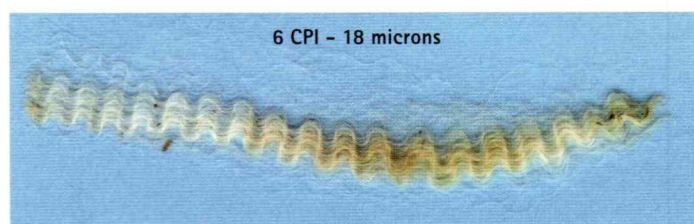


Figure 9: Elite – deep crimping

Bold crimp example:

Traditional merino	19 microns (16 crimps per inch)
Bold merino	19 microns (12-13 crimps per inch) A change of around 20-25%

Watts is currently applying these sheep breeding principles to alpacas and has found that in the first stage of this breeding process the huacaya fibre is following a similar pattern to that of merino wool. Watts has noted from his research that SRS® merino sheep crimp around every 8 days whereas huacaya fibre crimps around every 16 days.

Crimp therefore becomes a good subjective selection trait to help obtain maximum fleece production.

Crimp is the expression of the excellence of breeding. It will, by its degrees of excellence, help you estimate, in particular, density and fineness with the help of handle. We have learned from experience that if the crimp is well-defined and superior in nature in an older huacaya, e.g. 3 or 4 years old, this would indicate that the alpaca has the ability to maintain its fleece excellence. This certainly is an important trait you should look for in your selection process.

To be of maximum benefit we need to have superior crimp. This crimp should display high amplitude and regular crimps per inch. Merino fibre with this superior crimp style has shown the following attributes, and considering the similarity between merino and huacaya it would be not unfair to hypothesise the following statements.

What the superior fibre should express

To the breeder

- > High fibre density
- > Highly aligned fibres
- > More even sized primary and secondary fibres
- > Greater softness
- > More lustre
- > Fibres should be more cylindrical
- > Fibres should be finer in micron
- > Provided length is maintained, higher fleece weights should be achievable

To the top maker

- > A longer hauteur
- > Less short fibre in the top
- > Soft handling tops

To the spinner

- > The ability to have higher spinning speeds
- > Lighter weight yarns

To the fabric maker

- > Softer and lighter weight garment
- > Better drape and retention
- > Better dyeing affinity
- > Better cut and sew
- > Softer and better handle in the knitwear

Interviews with Peruvian processors

(over a number of years)

- > Charles Pattheys (CP) – Project Development and Research Manager, Inca Tops Grupo Inca. (1998)
- > Derek Michell (DM) – Operations Manager, Michell & Cia, Arequipa, Peru (1998)
- > Luis Chaves (LC) – Supervisor, Inca Tops Grupo Inca. (2005 through M. Safley)

Question: What importance is crimp to you in huacaya fibre?

CP: “We prefer to have a more even crimp than the non-crimped fibres. A well-defined crimp appears softer.”

DM: “Crimp is important to the huacaya fleece and if I could, I would like the staples to have a good crimp formation.”

LC: “I prefer crimp – I prefer the high curvature. Breeders need to know that crimp fibre is important; they can earn more money from it. Alpaca is less uniform than wool and with more crimp, in my opinion; the alpaca will be more uniform.”

Question: How much importance when processing huacaya fibre is placed on the bulk (curvature of the fibre)?

LC: “Bulk from crimp is very important in the textile industry. With crimp my garment will be lighter and more valuable. It affects positively the entire chain of value. The main problem with alpaca is the weight of the garment, and with crimp the garment is lighter (due to the bulking properties of crimp).”

Question: If you could change one or two things in the huacaya or suri what would they be?

CP: “No contamination of hair colour, improve the crimp and have no medullation (guard hair) in the fleece.”

DM: “The alpaca fibre is heavy so would like it lighter if possible and less medullation (guard hair).”

LC: “I would like to improve the micron count, remove the kemp (guard hair) and remove colour contamination (black fibres from white fleece and conversely white fibres from coloured fleece).”

Question: What do you think is a good micron (huacaya) for alpaca breeders to aim for?

LC: “A goal for the ideal micron count should be 18 microns. This would improve the entire value of the alpaca. This would allow us to compete with cashmere. There would still be a place for superfine alpaca with an overall average of 21 microns. There would be a huge market for the 18 to 19 micron alpaca.”

Juan Pepper of Michell & Co at a lecture titled, “The International Market Place” stated,

“The lack of crimp in huacaya fibre is a significant problem for processors”. He also went on to say, “crimp could be added artificially during the manufacturing process, but that yarn made in this fashion did not retain a ‘memory’ of the crimp which was a problem.” (Safley 2005)

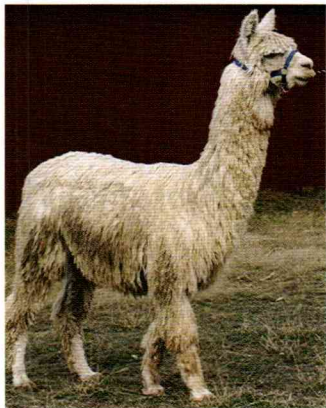
Note: Huacaya fibre with good crimp definition retains its memory in the yarn.

It would be interesting for a fully controlled research project to be carried out using 1,000 huacayas and 500 suris that are selected for their fibre types, micron, age, frequencies/lock type etc. This would give a more accurate indication. Having said that, nothing in the short term will change the genetic variance between animals and how they express their micron, crimp frequency and definition. Strains of alpacas will develop and have their own indicative characteristics. It will always be easy to have averages but from those averages there will be a number of animals that will lay either side of the mean, some close and some far away. You cannot say with confidence that a Huacaya with a given crimp frequency will always have a certain micron. You need to check to confirm its fineness. ■

Editor's Note: *Is Crimp Important?* concludes in Part 2 which will appear in the next issue of *Alpacas Australia* published in December 2006.

Two of Australia's finest sires pass on

As the Australian alpaca industry continues, now well into its second decade, so does time march on for those animals that have been so influential in the growth of the Australian herd. Sadly, we report the deaths of two of Australia's finest sires in the past two months. Fortunately their excellence will live on, perpetuated in the sons and daughters already born and the generations still to come.



ILR Pperuvian Amador G4582 (IAR 25616)

by Paul Cramley & Linda Davies, Pacofino Pty Ltd., NSW

Sadly, *ILR Pperuvian Amador G4582* died of a heart attack on 25 May 2006. "*Amador*" was a full Accoyo bred by Don Julio Barreda, who is quoted as

considering "*Amador*" to be a 'perfect' example of what you should breed for in a suri. We believe he was aged between 19-21 years but, right to the end, he was still a keen worker as well as a great mentor for our weanling males. "*Amador*" has produced many champion offspring in Australia and we know there are many breeders out there who have used his genetics and been successful with them. He has certainly left his mark on our herd. "*Amador*" still carried lustrous and well pencilled fleece and his last test in October 2005 measured at 24.1 micron, 5.2 SD, 21.3 CV. Not bad for an old fella!



Purrumbete El Dorado (IAR 2403)

by Lyn & Graeme Dickson, Warralinga Alpaca Stud, NSW

It is with some sadness that we report the death in June 2006 of well-known and highly respected huacaya sire, *Purrumbete El Dorado*. "*El Dorado*" was humanely euthanased at Warralinga Alpaca Stud, NSW

after a short illness, and is thought to have been around 18-20 years of age. He was imported into Australia in 1991 by Roger and Clyde Haldane and commenced a long and illustrious stud career spanning 15 years. "*El Dorado*" is considered to be one of Australia's most prolific sires with over 630 registered progeny, many of these and their descendants with outstanding show success and fleece production data to their credit. For the past nine years "*El Dorado*" has been co-owned by Maureen Carey of Forestglen Alpacas, NSW and Lyn and Graeme Dickson of Warralinga, who now look forward to the arrival of his last crias due later in 2006.

NEW ZEALAND ALPACA WEEK

NATIONAL ALPACA EXPO 06 – WESTPAC CENTRE

www.alpaca.org.nz

Christchurch – 10, 11 & 12 November

- Championship Fleece and Breed classes
- Creative Alpaca Exhibition
- Gala Dinner
- National Alpaca Auction

ALPACA SEMINARS

Christchurch – 13, 14 & 15 November

NZ CUP AND SHOW WEEK

www.nzcupandshow.co.nz

Christchurch – 10-18 November

NZ ROYAL SHOW – CANTERBURY PARK

Christchurch

(currently the largest NZ A & P Alpaca Section)

- Fleece Judging 15 November
- Breed Judging 16 & 17 November

Contact: Anne Rogers – Convenor

Email: secretary@alpaca.org.nz

Phone: NZ (03)3128151 Fax: NZ (03)3134658

ALPACA ASSOCIATION
NEW ZEALAND



Fleece Collection Day

ON THE MORNINGTON PENINSULA

FLEECE ARTICLE by **Nick Veltjens** > Talca Alpacas, VIC

There are about 25 breeders on the Mornington Peninsula in Victoria who formed a social and commercial group to do alpaca things together; the Mornington Peninsula Alpaca Breeders Association (MPAB). It is quite geographical, and members of the group must be members of the AAA.

With the knowledge that AAA Fleece Liaison Officers (FLOs) and collection point hosts have the problem that fleeces get dropped off at all times, sometimes at impossible times, a few years ago the MPAB decided on the 'do it all on one day' concept combining it with a BBQ to give it a social slant. This has worked very well indeed. Other alpaca owners such as wineries and non AAA members in the area who have alpacas as herd guards are also invited to bring their fleeces along and participate.

New breeders, who have little or no confidence in skirting a fleece, can bring their clip along and get hands-on help to skirt their fleeces there and then. The collection day has actually attracted some of the 'older' breeders as well, who have lots of fleeces in their sheds from up to three or four years ago, such quantity having gone beyond their own capacity to handle. Naturally much of that is now moth eaten and mouse infested, so a careful check is made before those fleeces are even allowed into the sorting shed.

Many fleeces arrive in bags, some properly sorted and tagged, some not, some are even in bales. Everything that arrives is submitted to the recording team under the direction of David Daddo and our secretary, Kathleen Hodgkin.

From there it is passed to the 'baling master', Geoff Welsh, who, with the help of others, squashes as many bags as possible into a bale. Geoff's record is a delivery consisting of two bales sent by one breeder, which he managed to compress into one bale, weighing 61.5 kg. Not bad for a manual effort.

After three hours of work at this season's collection day, the hosts, Mary Ann and John Drysdale, called the crew for lunch and the reaction was prompt and unflinching. John had stood by the BBQ preparing his mouth watering fare, while Mary Ann did hers in her inimitable way in the kitchen. Everyone helped themselves to the feast and conversation flowed over a few glasses of red.

The afternoon brought more deliveries, and by the end of the day the totals were tallied with the pleasing result of 556.2 kg collected on the day. A memorable and enjoyable day was had by all. John Drysdale delivered this load to AAFL in Sunshine on the following Wednesday.

As for what happened to the fleece after that ... the speaker for the next MPAB meeting will be AAFL Managing Director, Michael Talbot who will give us the low down on where this fleece (and others) will finish up in the next few months. ■



Exploration and Visualisation of Ovarian Structures in Alpacas by Transrectal Ultrasound

RESEARCH AND DEVELOPMENT ARTICLE by **Jorge Reyna** BSc (Hons), MscVetSC (Sydney Univ.)
> Alpaca Reproductive Technologies – ART

Introduction

Transrectal ultrasonography has been used in a number of domestic species to observe the ovaries. This technique allows visualization of the ovarian structure in real time without direct manipulation [Pierson & Ginther, 1988] for the measurement of ovarian diameter, the number and size of follicles and *corpora lutea*, and the detection of pathologies such as cysts. Ultrasonography does not require anaesthesia, is non-invasive and repeatable [Clarke & Doughton, 1983]. Initially it was developed for cattle [Pierson & Ginther, 1984; Reeves *et al.*, 1984] and is now the most popular method for the study of follicular dynamics in large domestic animals [Griffin & Ginther, 1992; Kahn, 1992].

Recently, high resolution probes (7.5, 9 and 10 MHz) have made possible a clearer visualization of the ovarian structures in domestic species. Now the technique is applied to the study of follicular dynamics in cattle [Pierson & Ginther, 1988; Knopf *et al.*, 1989; Bodensteiner *et al.*, 1995; Ginther *et al.*, 1997; Savio *et al.*, 1997; Sirois & Fortune, 1998], ewes [Noel *et al.*, 1993; Ravindra *et al.*, 1994; Leyva *et al.*, 1998; Evans *et al.*, 2000; Bartlewski *et al.*, 1999; Rubianes *et al.*, 1999], goats [De Castro *et al.*, 1999; Menchaca and Rubianes, 2002], camels [Tinson & McKinnon, 1992; Tibary & Anouassi, 2000] and in alpacas [Vaughan *et al.*, 2002].

Transrectal ultrasound in alpacas (TRUSA) is the most powerful tool when Multi Ovulation and Embryo Transfer programs (MOET) are applied. It allows the determination of previous ovarian status before starting a superovulatory treatment. Superovulation in alpacas in the presence of a dominant follicle may affect the yield and quality of embryos, as reported in other species like cattle [Guibault *et al.*, 1991; Huhtinen *et al.*, 1992; Rouillier, 1990] and sheep [Rubianes *et al.*, 1995; Rubianes, 2000]. Another application of TRUSA is to determine the response of superovulatory protocols by counting the *corpora lutea* at the ovaries and to determine how many embryos we may expect to yield. TRUSA is also important before synchronisation of receptors. Finally, it is useful to determine reproductive pathologies like cystic ovarian disease which could affect the reproductive efficiency of the herd.

Much research conducted in female reproductive physiology in alpacas used TRUSA, but none of the studies present the technique step-by-step and documented with ultrasound images. This article describes for the first time in a simple manner how observations of the ovaries are made in alpacas, including imaging method, visualisation of structures and ultrasonographic patterns.

Procedure for scanning the ovaries

Two methods have been used to visualise ovarian structures. In both methods, animals are restrained in a holding crate in the sternal recumbency position. The first method introduces the probe using the hand (*Figure 1*) and the second method introduces the probe attached to a PVC pipe as reported in the ewe [Reyna, 2005]. Both methods are effective for the observation of the ovaries but require that the animals are acclimatised to the testing environment and accustomed to the technique.



Figure 1: Introduction of the probe with lubricated hand and localisation of the ovaries with fingers to lead the transducer to the ovarian surface in order to visualise the structures.



Figure 2: Picture showing ultrasonic gel, syringe and transrectal probe (5.0/7.5 MHz).

Faeces are removed from the rectum with the right hand, and then 50ml of a water-soluble, non-irritant viscous ultrasonic coupling medium (Ultrasonic Gel) is inserted into the rectum with a syringe to avoid damage to the mucosa (Figure 2). For the first method, upon introducing the hand with the transducer, fingers are used to palpate the ovaries and to lead the transducer onto the surface. For the second method, the ultrasound transducer, sheathed with a piece of PVC pipe (2 x 40cm), is gently inserted into the rectum (20-35cm). In both methods, the first visible structure located is the bladder, identified by its very dark contrast due to its liquid content. Passing the bladder it is possible to visualize the uterine body and horns. After location of the uterus, the transducer is rotated 90 degrees clockwise and 180 degrees counter-clockwise across the reproductive tract until both ovaries are scanned. In some cases, upon application of the ultrasonic gel, the images are not clear and an extra cleaning of the rectum is performed by introducing 50-100ml of water with a syringe to rinse out the contents. After scanning both ovaries, the probe is gently removed from the rectum.

Imaging method

The settings of the ultrasound equipment are kept constant where possible, but as the resolution of the images is not constant within and between animals, it is necessary to adjust the gain and contrast settings to obtain a clear image.

The peristaltic movements of the digestive tract also influence the quality of the image obtained. After image freezing, some follicles lack contrast and focus and sometimes have a solid appearance instead of the usual dark appearance. The best assessments are made during real time observations.

Connecting the ultrasound machine to a handycam or VCR is necessary to record videos for further analysis. Then videos can be downloaded onto the computer to capture frames and digitise pictures in jpeg files using frame capture software. This methodology, although time-consuming, is the only way to confirm that the evaluations are accurate.



Figure 3: The bladder looks dark due to its liquid content and it is the first visible structure upon introducing the transducer into the rectum.



Figure 4: Transversal section of the uterine body in alpacas captured by transrectal ultrasound. The dark part corresponds to the lumen.

Exploration and visualisation of structures

Bladder and reproductive tract

After cleaning the rectum, and upon application of the ultrasonic gel, the transducer or probe is gently inserted, usually between 20 and 35cm deep in order to find the ovaries. The first visible structure is the bladder, identified by its very dark contrast due to its liquid content (Figure 3). Passing the bladder it is possible to visualize the uterine body (Figure 4) and horns (Figure 5), which present a black pattern with a solid grey appearance around it corresponding to the muscular layer.

Ovaries

After location of the uterus the scanning surface of the probe is kept facing down the rectum. A rotation of approximately 90 degrees clockwise is then made and then one of 180 degrees counter-clockwise to find the right and left ovary, respectively. The ultrasound image of the alpaca ovary is of a globular irregular shape with the surrounding *tunica albuginea* visible as a white pattern (Figure 6), with a clear and diffuse area in the inferior part that corresponds to the ovarian fimbria. The medullar layer of the ovary presents a hyperechoic diffuse pattern, the cortical layer is normoechoic or moderately hypoechoic and the hilus can be observed like a hyperechogenic line that penetrates the ovary.

On many occasions, when ovaries are not found at the first attempt, it is necessary to move the transducer forwards and backwards very gently inside the rectum until the structures become visible. In some cases, resolution is not good and it is necessary to rinse the rectum with water and apply more ultrasonic gel. The position of the ovaries varies slightly between scans according to the intestinal tract content. Every animal has individual ovarian characteristics. To make further evaluations easier, it is necessary to become familiar with these characteristics during the scans performed. ►



Figure 5: Transversal section of the junction of the uterine horns.



Figure 6: Alpaca ovary showing a globular irregular shape with a grey appearance with 5 and 3mm follicles, respectively. The *tunica albuginea* surrounds the ovary as a white pattern.

Follicles

Upon location of the ovaries it is possible to visualise follicles by pressing the probe very gently against the ovarian surface. Follicles appear as black circular structures surrounded by echogenic ovarian tissue, as fluid absorbs rather than reflects ultrasound waves (Figure 6). The follicular wall is normally very thin and well defined, especially in the area of contact with other follicles. Blood vessels appear as black and circular structures, but are easy to identify by rotating the probe and observing their elongated appearance (Figure 7). In some cases, when the definition of the image is not clear, it is necessary to press the probe firmly against the ovary with very slow movements. The ultrasound machine resolves ovarian follicles with a diameter of 2 to 3mm or greater and larger antral follicles are easily tracked during serial scanning sessions. The measurements of the follicles are made once with the built-in callipers, making sure that the follicular wall is not included as this could be a source of error in finding the limit between the ovarian tissue and the follicular wall.

The ovulatory follicle is similar to any other large follicle and hard to identify if it is not tracked continuously before induction of ovulation in animals destined to be used as recipients for ET programs. There are some changes observed in the appearance of the ovulatory follicle, including an increase in the echogenicity of the antrum, and it is possible to notice a decrease in the resolution of the interior part closer to ovulation (20 hours after GnRH application).

Corpora lutea

After ovulation, the ruptured follicle becomes a *corpus luteum* which is responsible for the production of progesterone which maintains the pregnancy during the whole period of gestation in alpacas. The structure has a hyperechogenic shape, similar to the ovarian parenchyma but slightly less even. The *corpus luteum* appears

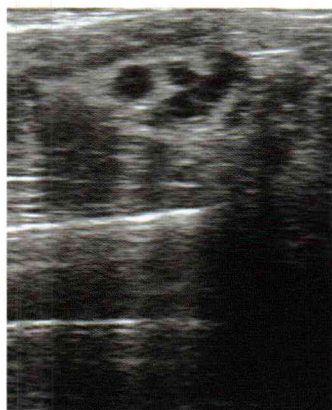


Figure 7: Blood vessels that look round and may be confused with follicles. When the probe is moving gently it is possible to observe elongation.



Figure 8: *Corpus luteum* in a pregnant female at 11 months of gestation. The *corpus luteum* appears homogeneous and it is possible to determine its boundary with the ovarian tissue.

homogeneous with a normoechoic pattern and it is possible to determine its boundary with the ovarian tissue. The settings of the ultrasound machine are changed in order to visualize the *corpus luteum*, which requires less contrast and brightness than follicles (Figure 8). The *corpus luteum* in all the cases presents a solid appearance and there are no cases of cavities, as observed in the ewe [Reyna, 2005].

Placenta

It is possible to visualise the placenta in some of the pregnant animals. After passing the bladder, the placenta can be visualised as a large dark structure due to its liquid content (Figure 9).

Conclusion

TRUSA is a reliable technique to follow up follicular growth and atresia, to determine when ovulation occurs and the response to superovulatory treatments by observation of the *corpora lutea*. It can be used as a selection criterion in donors to increase the efficiency of embryo transfer programs, as a diagnostic tool for reproductive pathologies such as cystic ovarian disease, and also for pregnancy diagnosis. One of the main disadvantages is that the technique requires arduous training and an eye for detail. The application of the technique using a PVC pipe has an important application in the case of animals whose rectums are too tight to introduce the hand into, but this technique requires more skills and patience than the manual technique.

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Correspondence to be addressed to Jorge Reyna.
Alpaca Reproductive Technologies (ART),
7/520 New Canterbury Road,
Dulwich Hill NSW 2203 AUSTRALIA.
Phone: +61 2 9568 1370, Mobile +61 428 ALPACA
Website: <http://alpacas.atspace.com>



Figure 9: Ultrasonographic image of the placenta showing a dark pattern.

TRUSA Glossary

- > Antrum: A nearly closed cavity or chamber.
- > Atresia: In ovarian follicle dynamics, atresia refers to the degeneration and subsequent resorption of one or more immature ovarian follicles.
- > Cyst: Closed sac having a distinct membrane and developing abnormally in a cavity or structure of the body. Cysts observed at the ovaries may cause continuous receptivity or non-receptivity and consequent infertility.
- > Echoic: Of or resembling an echo.
- > Echogenic: Containing structures that reflect high-frequency sound waves and thus can be imaged by ultrasound techniques.
- > Follicles: Ovarian follicles or Graafian follicles (after Regnier de Graaf) are the roughly spherical cell aggregations in the ovary containing an ovum and from which the eggs are released during ovulation. It consists of an external fibro-vascular coat, an internal coat of nucleated cells, and a transparent, albuminous fluid in which the ovum is suspended. The maturation of the follicle is called folliculogenesis.
- > Hilus: A depression or fissure where vessels or nerves or ducts enter a bodily organ.
- > Hyper (Preface): over, above, beyond, excessive.
- > Normo (Preface): normal.
- > Ovarian fimbria: Fringe of skin near the ovary leading to the fallopian tube. When ovulation is about to occur, the sex hormones activate the fimbria, causing it to hit the ovary in a gentle, sweeping motion.
- > Ovarian parenchyma: Functional tissue at the ovary where the follicles are contained.
- > Transducer: A device, usually electrical or electronic, that converts one type of energy to another for the purpose of measurement or information transfer. In ultrasonography it is the probe that converts the ultrasound waves into pictures visualised on the screen.
- > Tunica albuginea: The term comes straight from the Latin tunica (covering or coat) + albuginea (white), a covering that is white. In the case of the ovary, it is a dense, fibrous connective tissue covering the whole surface just beneath the superficial epithelium.
- > Ultrasound: High-frequency sound waves. Ultrasound waves can be bounced off tissues using special devices called transducers or probes. The echoes are then converted into a picture called a sonogram. Ultrasound imaging applied in reproductive technologies, referred to as transrectal ultrasonography, allows one to get an inside view of the ovaries and reproductive tract without using invasive techniques.

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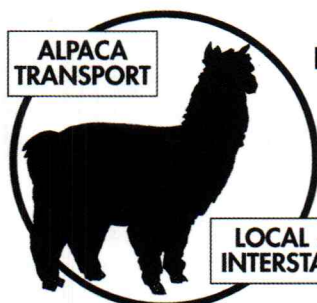


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★ WINNER ★



< Well done, another beautiful baby ... just like me! >

Val & David Parker • Bonegilla Alpacas, VIC



< I'll stick with you guys – the girls are doing lunch >

Pam & Warren Brown • Yarra Glen, VIC



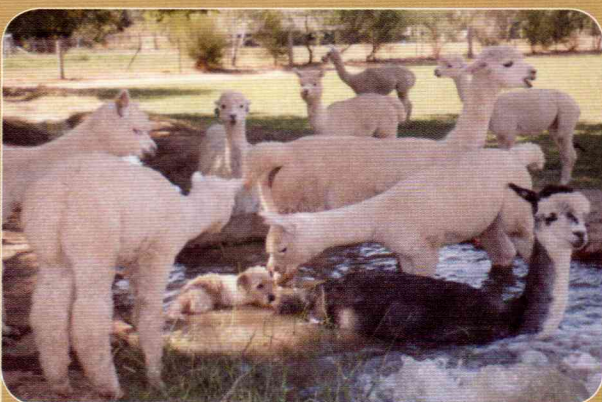
< Herd it on the grapevine >

Doris Drew • Hannamay Park Alpacas, QLD



< Don't strain yourself >

Geoff & Jenni Smith • Aingeal Ridge Alpacas, ACT



< Cooling off with the big guys >

Joan & Vic Dohnt • Ailahtan Alpacas, VIC



< He is my friend >

Mike Nichols, Dynasty Alpacas, VIC



< My turn to try a water birth >

Anne Jelinek • Charisma Alpacas, VIC



< Aah, this is cool! >

Kerry Watt • Shepherdessdowns Alpacas, NSW



< Sir, may I take your hat? >

Robert & Linda Power • Roblin Alpacas, NSW



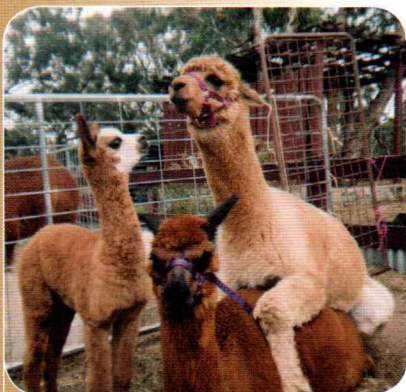
< My name's Nicholas, what's yours? >

Linda & Mark Agnew • Almaray Alpacas, VIC



< 'Paca Pilates' >

Diana Blackmore • Cable Station Alpacas, NZ



< Dad, what are you doing to Mum? >

Alan & Dawn Bicknell • Eaglevale Alpacas, NSW



< Just one kiss, please >

Dianne King • Wynwood Alpacas, NSW



< After that roll, will the judge believe we are solid white? >

Hans & Margaretha van Poppel • Joma Alpacas, VIC



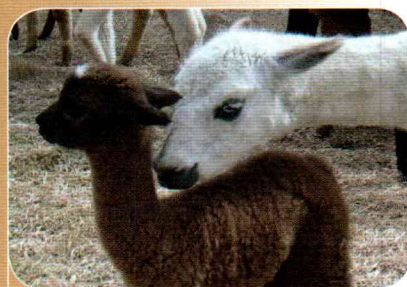
< Come in, there's room for more >

David Lowe • Plateau's Edge Alpacas, VIC



< Wake me when you're finished >

Jeanette Klomp • Aurora Alpacas, NZ



< I'm here >

Chris Ivins • Glenoma Alpacas, NSW



< I just wanna be friends >

Odette Mayne • Currumbong Alpacas, ACT

Upcoming Events

August

10-19 Royal Queensland Show: QLD

Venue: Brisbane Showgrounds
Highlights: Fleece judging (14 Aug);
Alpaca judging (15 Aug)
Contact: Camilla Smith (07) 3408 7639

11-13 NSW New Breeders Seminar: NSW

Venue: Ranelagh House, Robertson
Highlights: Lectures, demonstrations
Contact: Heather Vickery 0411 118 780

12 Lardner Alpaca Show: VIC

Venue: Baw Baw Pavilion, Lardner Park,
Warragul
Highlights: Alpaca judging
Contact: Bob McLeod (03) 5629 1140

18-20 AAA Inc. National Conference: SA

Venue: Adelaide Convention Centre
Highlights: Lectures on latest industry
developments
Contact: Jolyon Porter (08) 8568 5254

26-27 Totally Alpaca Field Days & Regional Auction: NSW

Venue: Goulburn Showgrounds
Highlights: Alpaca auction; Promotional display
Contact: Peter Bishop (02) 4829 5144

31-2/9 Gold Coast Show: QLD

Venue: Gold Coast Showgrounds
Highlights: Alpaca judging (2 Sept)
Contact: Shayne Barnett (07) 3200 0585

September

1-9 Royal Adelaide Show: SA

Venue: Adelaide Showgrounds
Highlights: Alpaca judging (1 Sept);
Fleece judging (2 Sept)
Contact: Jolyon Porter (08) 8568 5254

2-3 Spring Colourbration Carnival: VIC

Venue: Lancefield Park
Highlights: Alpaca & fleece judging
Contact: Vivienne Grigg (03) 5428 6712

2-3 Spring Show: WA

Venue: Fairbridge Village
Highlights: Alpaca judging
Contact: Pamela Brown (08) 9574 6050

3 Hawkesbury Spring Show: NSW

Venue: Hawkesbury Showgrounds,
Clarendon
Highlights: Alpaca judging
Contact: Brian Woodhouse-Young
(02) 4571 2362

7-10 Flora Fest: NSW

Venue: Mt Penang Showgrounds, Kariong
Highlights: Display only
Contact: Rick Hodgson (02) 4847 1233

8-9 Beaudesert Agricultural Show: QLD

Venue: Beaudesert Showgrounds
Highlights: AgEd sessions (8 Sept);
Promotional display (9 Sept)
Contact: Shayne Barnett (07) 3200 0585

16-17 Charles Ledger Show: NSW

Venue: 'Wivenhoe' Macquarie Grove Rd.,
Camden
Highlights: Alpaca judging
Contact: Phillip Vickery 0438 852 852

17 Alpaca Sale Day: WA

Venue: Gidgegannup
Highlights: Pen sales, display
Contact: Pamela Brown (08) 9574 6050

21-1/10 Royal Melbourne Show: VIC

Venue: Melbourne Showgrounds
Highlights: Fleece judging (22 Sept);
Alpaca judging: Jnr huacayas (22 Sept);
All other huacayas (23 Sept);
Suris (24 Sept)
Contact: Geoff Hargreaves (03) 5773 2494

30-7/10 Royal Perth Show: WA

Venue: RAS Showgrounds, Claremont
Highlights: Alpaca judging (25 Sept);
Fleece judging (26 Sept)
Contact: Pamela Brown (08) 9574 6050

October

2 Strathalbyn Show: SA

Venue: Strathalbyn Showgrounds
Highlights: Alpaca & fleece judging
Contact: Jan Bentley (08) 8556 0256

3-5 Elmore Field Days: VIC

Venue: Elmore Field Days Site
Highlights: Promotional display
Contact: Vivienne Grigg (03) 5428 6712

7 Burnie Show: TAS

Venue: Burnie Showgrounds
Highlights: Alpaca judging
Contact: Therese Badcock (03) 6432 3613

7 Seymour Agricultural Show: VIC

Venue: Seymour Showgrounds
Highlights: Alpaca & fleece judging
Contact: Vivienne Grigg (03) 5428 6712

14 Clare Show: SA

Venue: Clare Showgrounds
Highlights: Alpaca & fleece judging
Contact: Jan Bentley (08) 8556 0256

14 Royal Launceston Show: TAS

Venue: Launceston Showgrounds
Highlights: Alpaca judging
Contact: Glen Boyd (03) 6397 3007

17-19 Australian National Field Days & Alpaca Expo: NSW

Venue: ANFD Site, Borenore via Orange
Highlights: Alpaca display & expo
Contact: John Lawrie (02) 6846 7292

21-22 Stringybark Bush Festival & 'Alpacas In Focus' Show: VIC

Venue: Stud Park Shopping Centre, Rowville
Highlights: Alpaca judging (22 Oct)
Contact: Bob McLeod (03) 5629 1140

25-28 Royal Hobart Show: TAS

Venue: Hobart Showgrounds
Highlights: Alpaca judging
Contact: Helen Dowd (03) 6239 6223

27 Warrnambool Show: VIC

Venue: Warrnambool Showgrounds
Highlights: Alpaca and fleece judging
Contact: Allan Waterson (03) 5565 8462

27-28 Bendigo Show: VIC

Venue: Bendigo Showgrounds
Highlights: Alpaca & fleece judging
Contact: Vivienne Grigg (03) 5428 6712

27-29 13th AAA National Show & Sale: ACT

Venue: EPIC, Canberra
Highlights: Alpaca craft competition;
Photography/Art competition;
Fleece judging (26 Oct);
Alpaca judging (27-28 Oct)
Contact: AAA National Office (03) 9873 7700

28 Gidgegannup Show: WA

Highlights: Alpaca & craft display
Contact: Pamela Brown (08) 9574 6050

November

3 Colac Show: VIC

Venue: Colac Showgrounds
Highlights: Alpaca and fleece judging
Contact: Lauris Jephcott (03) 5237 7783

4 Whittlesea Agricultural Show: VIC

Venue: Whittlesea Showgrounds
Highlights: Alpaca & fleece judging
Contact: Vivienne Grigg (03) 5428 6712

4 Sale Show: VIC

Venue: Sale Showgrounds
Contact: Bodil Nielsen (03) 5199 2599

5 Information Day For New Breeders: WA

Venue: Gidgegannup
Contact: Pamela Brown (08) 9574 6050

10-11 Albany Show: WA

Venue: Albany Showgrounds
Highlights: Alpaca & fleece judging
Contact: Mahlon Hotker (08) 9844 7989

11 Alexandra Spring Classic Show: VIC

Venue: Alexandra Showgrounds
Highlights: Alpaca & fleece judging
Contact: Richard Watson (03) 5772 2497

18 Huon Show: TAS

Venue: Ranelagh Showgrounds
Highlights: Alpaca & fleece judging
Contact: Raymond Haynes (03) 6225 5306

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<i>Alpaca Fibre – An Introduction</i> by Watt I	9.80	8.00	\$
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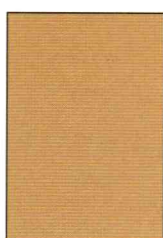
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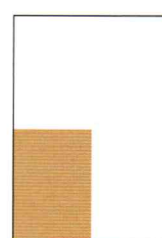
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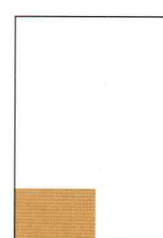
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Due: December 2006
Deadline: Friday 6 October 2006

Issue 52: Autumn

Due: April 2007
Deadline: Friday 9 February 2007

Issue 53: Winter

Due: August 2007
Deadline: Friday 1 June 2007

Please book and send all editorial and advertising material to Sandra Wright

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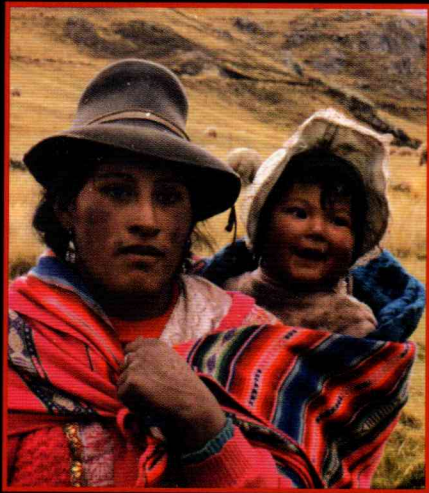
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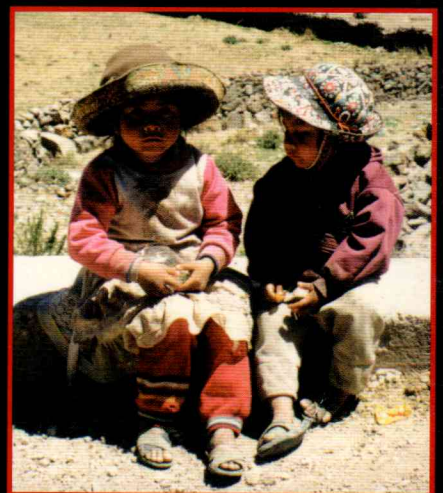
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