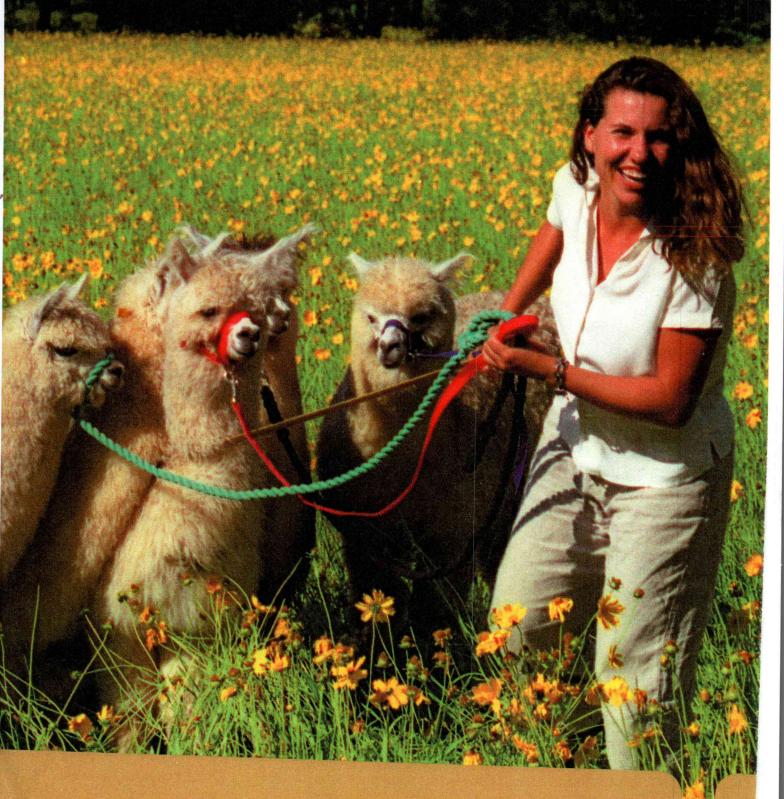


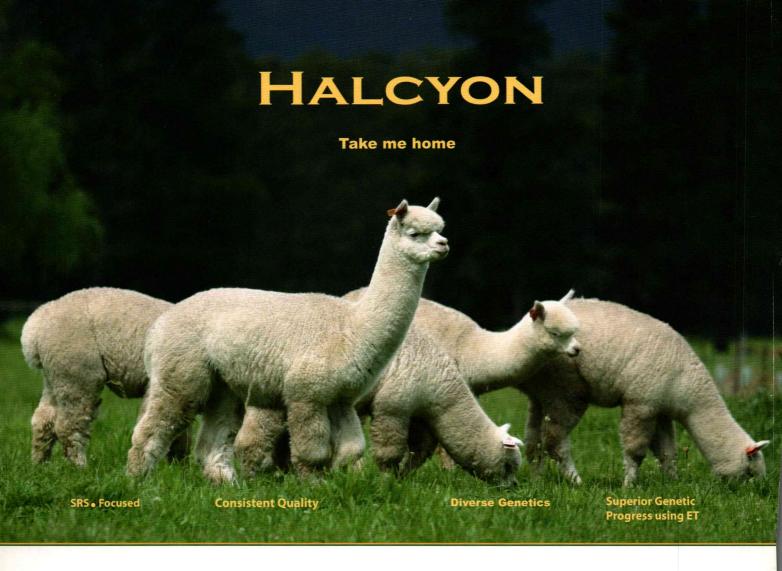
ALPACAS AUSTRALIA

The official publication of the Australian Alpaca Association Inc.

ISSUE 51 • SUMMER 2006



2006 National Show and Sale • Fashion Parades • Dog Attacks • Tick Control



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Photograph by Richard Keir of Annalisa Tomich with Roblee

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ISSN 1328-8318

	AUVERTISERS
mbersun Alpacas / Ichiban Alpacas	32
istralian Alpaca Barn	51
nleigh Alpaca Stud	3
ingalook Alpaca Farm	50
melot Alpacas	9
olaroo Alpaca Stud	
ricancha Alpaca Stud	10.0.17
e Choice Alpacas	10 & 17
werdale Estate Alpacas	inside back cover
Ollon Alassa Ct. 1	
riah Hill Alpaca Ranch	inside front cover
ara Alpaca Stud / Purrumbete Suri Cr	11
Trady Farramoete Suri Cr	osses outside

mi Alpacas

REGULAR FEATURES

2 President's Message

58 Business Card Directory

60 PacaPics

63 Order Form

3 Briefly Speaking

62 Upcoming Events

64 Advertising Details

Clicarios

EDUCATION

11 2006 National Conference: From Here to Wear

Highlights

ANIMAL HEALTH AND WELFARE

14 Severe Tendon Tightness

Alpaca breeder's experience with a cria abnormality

18 Identifying and Tracing your Alpaca

The National Livestock Identification System (NLIS)

22 Magical Melissa (and Amazing Annette)

Physiotherapy treatment for alpacas

24 Control of Paralysis Tick in the Alpaca

Identification and how to minimise the effects of the Paralysis Tick

47 Poisonous Plant Profile

Spindle Tree

52 Dogs and Alpacas don't Mix

Points to consider - WARNING this article contains graphic images on page 54

SHOWING AND JUDGING

4 13th AAA Inc. National Show and Sale

Highlights

26 The Royals 2006

Highlights of the Adelaide, Brisbane, Hobart, Melbourne and Perth Royal Shows

31 Vale Bill Plunkett

A member who shared his life with so many alpaca breeders

FLEECE

20 New Label, New Staff at AAFL

New label 'Australian Alpaca Connection"

38 National Alpaca Fibre Seminar 'From Gate to Garment'

What happens to our fleece after it leaves the farm gate

40 Is Crimp Important?

Research and data information - second of two articles by Cameron Holt

56 Breeder Excursion to AAFL and Kelly & Windsor

A day tour offers insight of issues facing our industry's future

FASHION

12 Alpaca 'Innovations and Excellence' Fashion Show 2006

Alpaca breeder stages a fashion parade predominantly using alpaca fabric

21 Celebrate Australia Style in Shanghai

Shanghai Fashion Show 28-31 October 2006

SURI

48 Purrumbete Suri Cross

The Purrumbete Suri Cross Program

INDUSTRY

16 My Alpaca Transport Vehicle ... the start of a new era

G&W Lunghusen Studstock Transport

34 The Punch and Judy Show

Multiple Ovulation Embryo Transfer Matrix for reasonable service fee

A Message from the President

This being my first time published in 'Alpacas Australia' as the newly elected President of the Australian Alpaca Association Inc. (AAA), I would like to thank the AAA members for giving to me the opportunity to lead their organisation over the next two years. I take the further opportunity to thank, on your behalf, those retiring members of National Committee (NatCom) who have served so diligently to protect and progress your interests in our industry, most notably Kerry Dwyer, who continues to offer wise counsel to NatCom in his capacity of Immediate Past President.

Your new National Committee met for the first time in early October, and I take pleasure in advising you that they are a cohesive and forward-looking committee, a stimulating mix of old heads and new faces. They bring to the table a range of skills from which our Association can only benefit. They are determined to provide the necessary guidance and governance to restore to the Association the direction and focus from which it has been increasingly distracted over the past two years. That change in emphasis is the clear mandate of the election result.

With the increasing sophistication of our membership with regard to electronic media and communication, it is NatCom's clear intent that we use webmail and the AAA web site increasingly for our communication with the membership. This will grant to us the timelier, more efficient, and less costly dissemination of information. The role of the AAA Regions in progressing the concept of web communication will be advanced by encouraging all Regions to access their web sites via the AAA site, and by conducting educational sessions at a Regional level to develop and enhance the computer skills of members. I, personally, undertake to post regularly on the read-only NatCom section of the AAA web site forum, to keep members informed of Association business and developments.

By the time you receive this magazine, the National Show and Sale will have been concluded with record numbers; NatCom will have met a second time, this time with



Kerry Dwyer (left) and Ian Davison

National Council; and Christmas will be almost upon us. Shearing will be over for most, cria will be dropping, and we will have the opportunity to go over our fleece and fibre figures, and assess our breeding progress over the past year. Remember to get your AGE data in, and look forward to the feedback!

The office staff and National Committee of the AAA would ask that I convey to all members their best wishes for a happy and peaceful Christmas, a successful year in 2007, and more rain over all those areas where it is so desperately needed. More than ever, our thoughts go out to those in drought. Think rain!

Ian Davison, President

STOP PRESS The AAA Inc. National Committee is pleased to announce the appointment of Andrew McLorinan to the position of General Manager of the Association. Andrew comes to AAA as a management professional of +20 years international experience with undergraduate qualifications in arts and marketing and post graduate degrees in public policy and business administration. Before joining AAA, Andrew was the CEO of Keep Australia Beautiful Victoria, a membership based organisation active in metropolitan and regional Victoria. Andrew has experience in marketing, public affairs, economic and market development. He is also a Councillor in the City of Bayside. Andrew will commence with AAA in late November.



Briefly Speaking

Magpie alpaca bedding

Spotted at AAFL at the beginning of spring time this cheeky magpie plans on making her own line of alpaca bedding!



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A vital source of information on alpaca events, alpacas for sale, latest industry developments and much more for members and non-members.

Genetics Research News

by **Dr Christopher Stewardson** > Tolendal Alpacas, VIC. General Manager, Faculty of Science, University of Melbourne.

It is wonderful to see Government acknowledgement of the standing of the alpaca industry, particularly when that endorsement comes in the form of cash. The Department of Genetics at the University of Melbourne has recently been successful in obtaining an Australian Research Council grant for a project entitled *Breeding for the Future - Alpaca Genetics*.

The grant has been awarded under the ARC Linkage Scheme and the Linkage Partner, which is required to match the grant in cash and in kind, is Alpaca Genomics Australia Pty Ltd, a company established by a number of breeders. The Government contribution through the ARC is for a three-year program with total funding of \$222,000.

Working in collaboration with other scientists in the US, the University of Melbourne research team will focus on the genetic markers of alpacas, particularly in relation to the suri phenotype, as well as investigating heritable traits and fleece characteristics more generally. Fuller information will appear in the April edition of this magazine.

Have you moved?

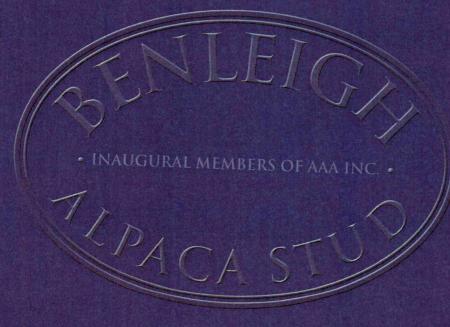
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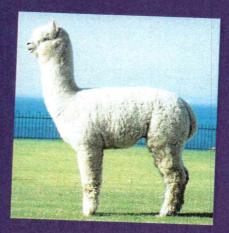
Season's Greetings

Best wishes for a safe and happy holiday season from everyone at the Australian Alpaca Association Inc. and *Alpacas Australia* magazine.

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13th AAA Inc. National Show and Sale

SHOWING AND JUDGING ARTICLE compiled by Sandra Wright > Australian Alpaca Association Inc. PHOTOGRAPHY © Cath Norman

The Judges' summaries

From Dianne Condon commenting on the Huacayas

Having had the honour of judging the National Show several years ago it was pleasing to see the huge improvement in the quality overall of all the alpacas. The quality of the fleeces and the advancement in the fleece structure in the top animals was quite exciting. Surprisingly, although large areas of Australia are currently in drought conditions, most of the animals' fleeces were well nourished and soft. The Champion animals overall were fine, soft and lustrous, carrying good density and excellent development in their fleece structure. In the younger classes the top alpacas were starting to develop individual stapling which peeled open into bright, creamy, soft-handling fleece with exceptional fineness. I saw several different crimp types and fleece styles in the line-ups however the winning animals were the ones that carried their type most consistently over the whole body, matched with density, fineness and softness to the hand, not forgetting conformation. The Supreme Champion, Regal House Mr. Darcy was the complete package. He was a stunning, masculine, well-balanced male with sound conformation and solid bone. He carried a soft, highly lustrous fleece with a well-aligned, deep amplitude crimp with excellent density. This stylish fleece was uniform across the body, down his legs and through into his chest.

Supreme Champion Huacaya, **Champion Senior Male** Regal House Mr. Darcy

From Bill Robbins commenting on the Suris

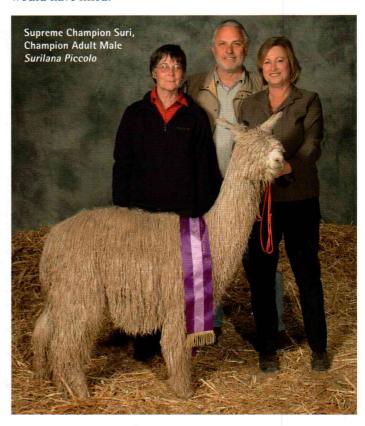
The number of suri entries for the National was gratifying, particularly in the junior and white classes. We just need more in the older and coloured classes.

The standard overall was excellent with a lot more emphasis placed on the lock independence and definition within the fleece. Considering the tough times we are going through with the drought most of the fleeces were holding up well.

The champions in each group were excellent examples of the suri breed and this was born out by the line-up of champions at the conclusion of the show.

The Supreme Champion, Surilana Piccolo was an outstanding suri with a very compact masculine conformation exhibiting all the fleece characteristics suris are renowned for e.g. lustre, handle, density and independence of lock.

The number of groups in the sires progeny class was a little disappointing but the quality was there once again, if not as consistent in some of the groups as I would have liked.



From Lyn Dickson, Judge, Fleece Section

The fleece competition at this year's National Show was closely contested by the top suri and huacaya fleeces, with sometimes only half a point difference between winners. Competition standards were high with the most outstanding huacaya fleeces coming from the older aged alpacas (over 18 months classes). There were some superbly fine fleeces throughout with many fleeces of great style and uniformity however, often these lovely fine, soft fleeces did not score enough points in the weight category to place them in winning positions.

Champion Suri Fleece, Bumble Hill Magnolia was a junior fleece with a beautiful handle and lustre and superior lock structure.

Champion Huacaya Fleece, Marriglen Mars was displaying softness and brightness with excellent uniformity of micron and length, and scored maximum points for weight. This extremely stylish fleece scored overall highest points in the show to win the inaugural Bill Plunkett Memorial Trophy for Grand Champion Fleece.



Bill Plunkett Memorial Trophy presented by Isbel Plunkett (right)

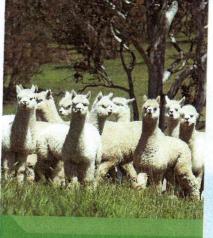


Champion Suri Fleece, Bumble Hill Magnolia



Champion Huacaya Fleece, Marriglen Mars

you, forging the



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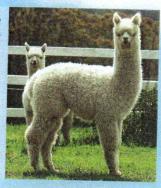
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NATIONAL HUACAYA CHAMPIONS



Champion Junior Female Banksia Park Miss Penelope ET



Res Champion Junior Female Chaparral Charape



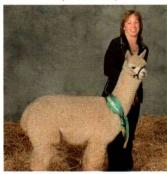
Champion Junior Male Faversham Armani



Res Champion Junior Male Banksia Park Pennant ET



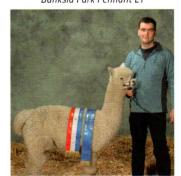
Champion Intermediate Female Jandarra Abbella



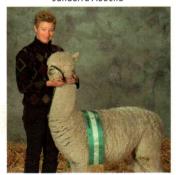
Res Champion Intermediate Female Windsong Valley Icedragon



Champion Intermediate Male Windsong Valley Stormrider



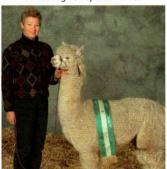
Champion Adult Female Ambleside Sapphire



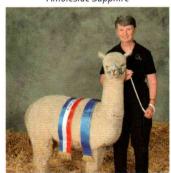
Res Champion Adult Female Ambersun Prelude



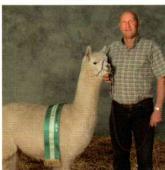
Champion Adult Male EP Cambridge Tidemark



Res Champion Adult Male Ambersun Corazon



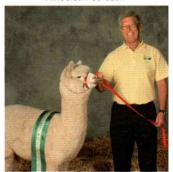
Champion Senior Female Encantador Little Miss Muffet



Res Champion Senior Female Adori Yvanna



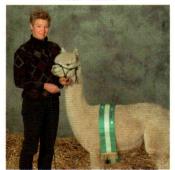
Champion Senior Male Regal House Mr Darcy



Res Champion Senior Male Brabant Chieftain



Champion Mature Female EP Cambridge Peruvian Savanna



Res Champion Mature Female Ambersun Peruvian Roxette



Champion Mature Male Jolimont Marscopino



Res Champion Mature Male Kingston Park Vulcan



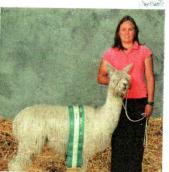
Sires Progeny Jolimont Warrior

Res Champion Intermediate Male Cedar House Neptune was not available for photography

NATIONAL SURI CHAMPIONS



Champion Junior Female Kurrawa Javana ET



Res Champion Junior Female Kurrawa Jewel ET



Champion Junior Male Kurrawa Just in Time ET



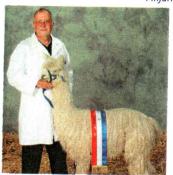
Res Champion Junior Male Pinjarra El Nino



Champion Intermediate Female Pucara Liza's Kahuna ET



Res Champion Intermediate Female . Baarrooka Elara



Champion Intermediate Male El Prado Cortez



Res Champion Intermediate Male Pinjarra Starmoss



Champion Adult Female Tahara Zahira



Res Champion Adult Female Surilana Obelia



Champion Adult Male Surilana Piccolo



Res Champion Adult Male Kurrawa Tari Q ET



Champion Senior Female Jolimont Conchita



Res Champion Senior Female Baarrooka Marilene



Champion Senior Male Surilana Bartok



Res Champion Senior Male Jolimont Accoyo Miquel



Sires Progeny Cedar House Sensational



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www.alpaca.asn.au

From Laraine Callinen, Judge, Craft Section

I wonder before each show I judge what will be the most outstanding section presented for judging. At this year's 13th National Alpaca Show the entries in the Handspinning and Felting sections showed how diverse alpaca fibre is, on its own or blended with other fibres. The hanks of handspun yarn in classes CS1 and CS2 were so beautifully spun I could imagine them forming the basis of exquisite garments.

The Nuno felted jacket exhibited by Judy Craig was a work of art in its method of felting as well as the construction of



Supreme Champion Alpaca Craft **Exhibit by Judy Craig**

the garment. This garment was deserving of the Supreme Champion award on the day.

The variety of items astounded me, from the classic knitting and crocheting to the felted tent and what I nicknamed the 'jellyfish' hanging. To all exhibitors I encourage you to start working on your next project towards promoting this wonderful fibre.

From Irene Garner, Judge, Photography / Art Section

Congratulations to all winners and all those who participated. I found the standard of all entries very high in terms of creative and technical energy.

When judging the photographic exhibits, credit was given to sharpness and focus; the contrast with respect to detail held in shadow (e.g. dark animals) and highlight (e.g. white animals) areas; the cropping with attention to horizontals and verticals; the overall colour balance and naturally, the composition of subject matter relevant to the topic.



Champion Alpaca Artwork by Jennifer Stewart

Whilst the number of art entries was relatively small in comparison, I again found the standard very high, particularly with respect to the junior exhibits.

Keep those artistic juices flowing - good visual communication will help promote these wonderful animals and remind us of the joy in breeding these unique animals.

Success touched with sadness

by Alicia Anderson & Cheryl Kosaras

> Regal House Alpacas, NSW

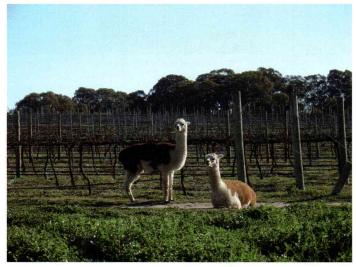
Years ago we said to ourselves, "One day we'll get Supreme at the Nationals" and this year we did! Regal House Mr. Darcy, was awarded Supreme Champion Huacaya at the 2006 National Show but the emotional roller-coaster we were on during the show makes him extra special to us as we lost his dam, Pamella the evening prior to his huge win. She had always produced quality progeny and was an absolute pleasure to have around.

Not long before the show Pamella had undergone a caesarian from which she never really recovered (we also lost the female cria). On the day before the show she had to be taken back to the vet's surgery requiring Alicia to make an emergency trip home from the show. While Alicia was on the road, our dear friend, Jeanne Brown who had not traveled too far on her trip to the show had turned around, gone home to get her float, collected Pamella and took her to the vet. Our girl fought so hard while Alicia sat with her, but infection had set in and we lost her late Friday night. Alicia was devastated and faced the difficult task of dealing with her 'disposal' (for want of a better word) on Saturday morning before heading back to the show, arriving half an hour before Darcy had to go in the ring.

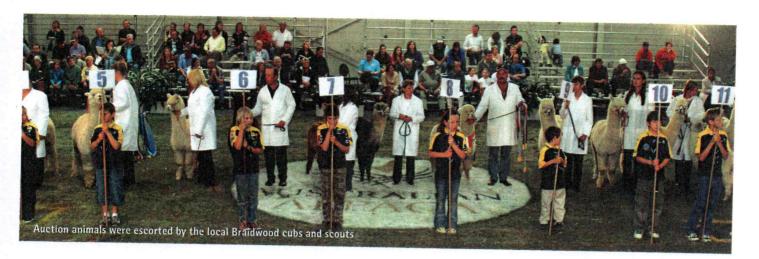
So, winning Supreme Champion was touched with sadness for us and to all those wonderful people who felt our loss, and shared both our sadness and our happiness, we say a big THANKYOU!



Champion Alpaca Photograph by Deb Freeman



Champion Junior Visual Artist, Jayson Synnot



'Ring-cam' and the Parade of Champions

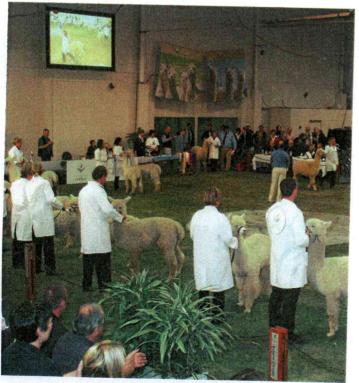
by Paul Haslin, National Show Convenor

The organising team felt that it was important to make the National Show and Sale not just a show but the pinnacle event in the alpaca year. We tried to lift the look and feel of the show ring to increase the showing spectacle and provide an environment that allowed exhibitors and visitors to feel they were part of something special.

Added to this was the introduction of 'ring-cam', allowing the viewers to see into the fleece and hopefully have a better understanding of what the judges were selecting. The big screen also allowed those taking advantage of the opportunity to relax and chat in the café plaza to see what was happening in the ring.

Another innovation for this year was the Parade of Champions leading up to the sashing of the two Supreme Champions, bringing the show to a thrilling climax.

'Ring-cam' during the Parade of Champions



2006 National Auction

by Graeme Dickson, National Auction Convenor

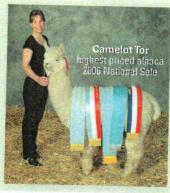
The 650 strong crowd of alpaca enthusiasts that attended the auction in Canberra witnessed the most dynamic AAA auction in the thirteen year history of the event; 13 lots offered, 13 lots sold from the ring, 100% clearance. The range of sales was from \$11,000 to \$124,300 (inclusive of GST) giving total sales of \$525,250 with an average price for females of \$33,412! The one male offered, *Camelot Tor* reached \$124,300 and was purchased by Carol Farman of Flowerdale Alpacas, Victoria who also purchased the highest priced female, *Banksia Park Miss Penelope ET* for \$70,400.

Four lots were purchased by Mr M George from Cambridgeshire, UK for a total of \$123,200. The remaining nine lots went to Australian buyers keen to access genetics from across the country (see the chart below). The auction was conducted by Landmark with three of the lots being donated by the event's Gold Sponsors, Banksia Park Alpaca Stud (WA), Alpaca Partners (NSW) and Fine Choice Alpacas (SA).

Offered by:	WA	SA	VIC	NSW	TOTAL
	3	3	4	3	13
Purchased by:					
WA		_	1	_	1
SA	-	1	-	-	1
VIC	1	_	1	-	2
NSW	1	2	-	2	5
UK	1	-	2	1	4

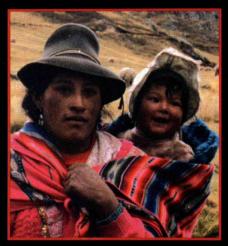


Andrew and Julien Nicolas Hanging Rock (Newham) Victoria phone: 03 5427 0165 email: nicolas@netcon.net.au





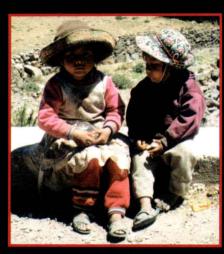
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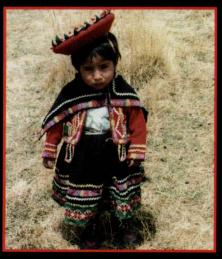
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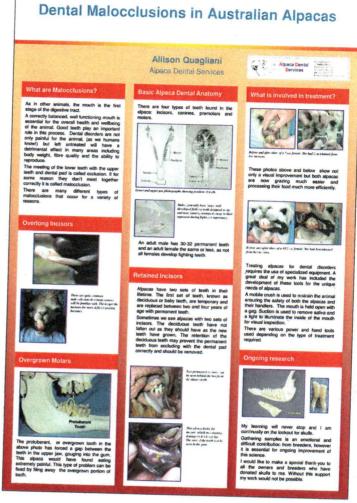
2006 National Conference From Here to Wear

EDUCATION ARTICLE by Sandra Wright > Australian Alpaca Association Inc.

A jam-packed weekend of industry updates was enjoyed by the 200+ delegates who attended the Adelaide Convention Centre in August. Breeders were given food for thought on a broad range of aspects in structured lectures over two days and were also given opportunities to catch up with friends and make new ones in a convivial atmosphere on both the Friday and Saturday nights.

As well delegates to this year's Conference were able to continue their learning during refreshment breaks thanks to the added attraction of vibrant posters created by Conference speakers, which were displayed in the trade site area. This new innovation to the Conference program afforded extra exposure of speakers' material and somewhat alleviated the problem of not being able to attend all sessions as is the usual case at these busy events.

The best poster (shown right) was adjudged and the prize awarded to Allison Quagliani of Alpaca Dental Services.





Alpaca 'Innovations and Excellence' Fashion Show 2006

(Funded and produced by Softfoot Alpaca Stud, South Australia) FASHION ARTICLE by Sandy Retallick > Softfoot Alpaca Stud, South Australia



In 2003 a visit to Areguipa, Peru and being a guest at a haute couture fashion parade, demonstrated to me that alpaca fabric was under utilised in this country.

Australian alpaca fashion parades that I had been privy to centred on knitwear, imported winter weight coats, scarves and fur pelted hats. The idea was born therefore to stage a fashion parade predominantly using alpaca fabric. The fashion parade would be a vehicle to promote alpaca fabric to fashion garment designers and the general public.

However over several months the quest to discover the available Australian fabrics, revealed a disappointing dearth. Having made the decision to promote the use of alpaca fabric to designers and the general public the dilemma I faced was how to do so when so little was manufactured or readily available in Australia.

The question then was whether to 'wait or create?' If I was to wait until there was sufficient variety of fabric being manufactured, just when would that be? The alternative was to demonstrate what could be achieved with alpaca fabric and strive to stimulate market demand. The idea being that such market demand would persuade interested parties to commission the manufacture of fabric from Australian manufacturers such as Macquarie, Creswick and others.

In line with the planned project to promote alpaca fabric to burgeoning fashion designers, TAFE South Australia, Marleston Campus was contacted.

I had studied for a Bachelor of Arts, through TAFE and this paved the way for the presentation of a fashion project proposal, fabric samples and a detailed design brief to college administration. The proposal also incorporated the incentive of an 'Innovations and Excellence' design competition open only to the design students, with awards and cash prizes respectively of \$500 and \$250 for the two top placed designs. The design brief was compiled specifically to ensure that the creation and manufacture of the garments incorporated the objectives of the commission.

The objectives required market specific high-fashion garments using minimal non-alpaca fabric additions. Quality finishing techniques were specified as were design innovation, excellence in garment construction and suitability of the designs to the fabric. Suitability of design was defined as demonstrating the inherent strengths and qualities of the fabric used in each garment.









For example, where a fabric had superior draping ability or lustre, then the garment needed to best demonstrate that quality. After due consideration, Marleston TAFE agreed to the project.

The 2006 Australian Alpaca Association Inc. Industry Conference, held in Adelaide, was eventually decided upon as the venue to hold the fashion parade.

Fabric was then ordered from Australia as was imported fabric from New Zealand, Peru and also small lots of cottage industry product such as commissioned nuno-felted fabric to our specifications. Twelve final year designers from the college were subsequently delivered the fabric with an assignment to create one outfit each. Twelve outfits however, do not a fashion parade make, so 'Softfoot Designs' hired a textile artist, Clancy Morgan to assist me in creating designs for a further twenty six garments. The costs of creating 'Softfoot Designs' garments, purchasing fabric and trims for Marleston Campus designers and also the costs of staging, administration and producing the fashion parade were all to be funded by Softfoot Alpacas.

The National Wine Centre venue saw the successful staging of the fashion parade on Friday 18 August. There was positive feedback from many of the two hundred or so guests present. Particularly gratifying were the various comments reported from many of the hundred general public members present on the night. Many of these people stated that they were unaware fabric was even made from alpaca fleece let alone that it could be made into high fashion garments.

Marleston TAFE Campus design students and their teachers reiterated often how exquisite the alpaca fabric was and their pleasure to be working with it.

The students further commented that they had been looking for such fabric to use for suiting projects but up until then had not found the quality they needed. Students and teachers contacted me during and after the parade regarding buying material for their design projects and also for personal use.







The success of the fashion parade confirmed my belief in creating high-end fashion garments from alpaca fabric.

I now believe we need clever strategies to pull alpaca fabric in to the market place. When striving to market products it is always important not to waste money and effort by attempting to reinvent the wheel. The Australian Wool Board is a successful example of a marketing strategy that accomplished their goals in the past and is still working today. The marketing strategy they established was the staging of an annual national fashion garment design competition.

In the 1970's Australian wool was popularly used in winter weight clothing. The Australian Wool Board created a marketing campaign to sell the brand new concept of using fabrics in fashion garments and also for everyday use. The Wool Board employed representatives to contact Australian fashion designers regarding a fashion design competition. Designers selected from samples of fabric to construct their garments. The competition and publicity from the fashion parades successfully promoted the 'new wool' look to designers and the public. In later years the Board also used this vehicle to market the lighter weight Woolmark blends.

These competitions have continued right up to today with the 2006 competition judged earlier this year in March. Professional designers, semi-professional designers, tertiary fashion college students can all enter as well as non-professional designers. The entrants personally fund the wool fabric purchases and professional designers are charged entry fees of several hundred dollars. Tertiary students and non-professionals pay a lower entry fee rate. Entrants sign release forms to allow their garments to be freely used in all media publicity, advertising and wool promotions.

I propose that the alpaca industry supports an annual or biennial fashion design competition. The biennial conference has a convening committee in place plus a venue which could host the first 'National Alpaca Fashion Design Competition'. Manufacturers large and small and cottage industry weavers would provide samples of fabric to one pre-determined outlet for the competition design entrants to choose from. Knitwear could be included and made to the designer's specifications. The designers will enjoy the publicity benefits that will come from winning a national competition. Our alpaca industry will benefit enormously from the publicity which will encourage new markets for our fleeces and increase alpaca stud sales. Processors and breeders will all benefit.

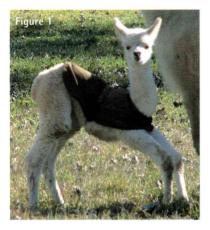
If you wish to support a national fashion competition please contact me. The support can be in any form that you are able to give. If you are unable to help but approve the project in principle, please also contact me. My contact details are: sandy@softfoot.com.au or telephone 08 8554 7155.

The 2006 'Innovations & Excellence' fashion parade evolved from a single idea and with ideas we can work together to create successful markets for our wonderful alpaca fleeces.

Severe Tendon Tightness

ANIMAL HEALTH AND WELFARE ARTICLE by Richard Watson > Alpine Alpacas, VIC

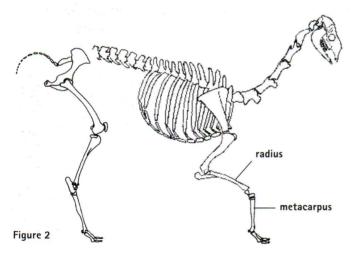
We were in Melbourne when my son rang me to say that a female cria had been born at 9.30am and that she had a severe problem which he described as 'walking like a spider'! We asked a fellow breeder to go around to our farm and have a look; her feelings were much the same, "very severe leg deformity".



Arriving home later in the day we found the cria exactly as it had been described to us (Figure 1).

Close examination revealed no obvious bone abnormality but the muscles and tendons in the front legs were extremely tight.

As she walked and became tired her shoulders were angled down 45 degrees to the hips. The radius bones were horizontal to the ground and the knee joint 90 degrees between the radius and the metacarpus (*Figure 2*).



Our program of ADE injections for winter had been strictly adhered to and the dam had received hers only four weeks before unpacking. We have seen new crias with tight tendon problems in the past however this problem was extreme. We decided to leave her for a few days and monitor her closely as many of the tight tendon problems correct themselves. A small quantity of cider vinegar (1ml) orally was administered daily as this can help sometimes. The cria was having no trouble feeding as she did not need to duck down, she just walked straight in. Keeping up with the herd did tire her and cushing was difficult at best.

After three days it was clear this problem would not resolve without our intervention. We had used splints in the past and the feeling was that this correction would have to take place in stages. We decided to use a short splint over the radius metacarpal joint for a few days and then progress to a full length leg splint to finally correct the leg abnormality. Splints were made using 40mm plastic pipe split in half lengthwise, then all cut edges and corners rounded of and smoothed. To pad the splint and prevent movement we used a foam mesh material in a double layer. This material is used under carpet squares and tablecloths to prevent slippage (Figure 3). The splint was placed on the back of the leg and the elastic bandage wrapped around to provide tension gently stretching the tendon. Duct tape was used to hold the bandage in place.

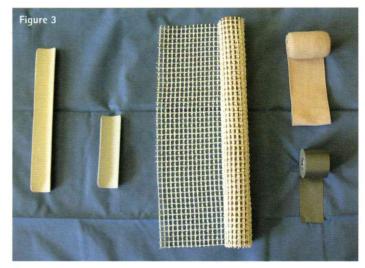
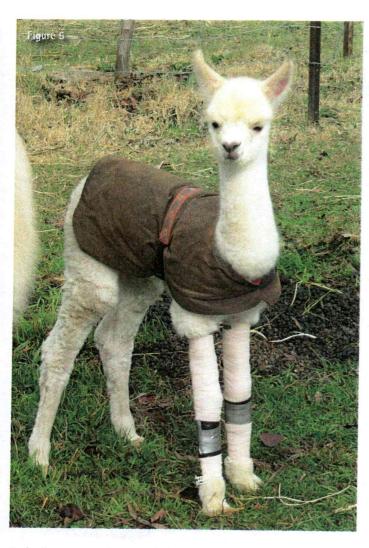


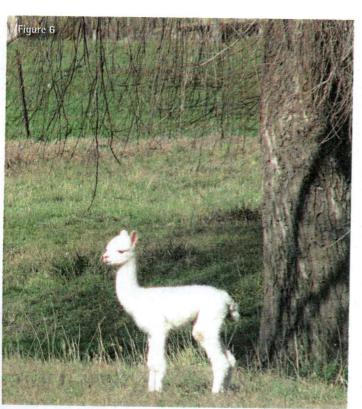
Figure 3: Care must be exercised not to have the bandage too tight – check the lower limbs and feet for warmth and thus blood flow.

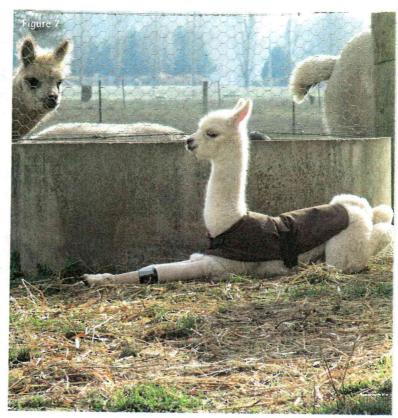


After two days kept in a small paddock wearing the short splints we removed the splints and noted a marked improvement in the cria (Figure 4).



A day's rest was given and then our full length version was applied (Figure 5). Two more days like this and the legs were perfectly straight (Figure 6) and just one week after commencing splinting she was running with all the other cria.





One thing that never ceases to amaze us is how adaptable these wonderful animals are. When we put her down on the ground after fitting the full length splints she was very stilted in her gate and rolling over her front feet. Within 30 minutes she had mastered walking, cushing (Figure 7) (getting up from the cush by pushing straight up with her back legs) and most amazingly, when she rolled over her front feet she would give a vertical hop and roll the feet onto the pads and off she went - she is now a happy and normal cria, well worth the effort (Figure 8).



My Alpaca Transport Vehicle ...

... the start of a new era

by Wendy Lunghusen > G & W Lunghusen Studstock Transport, VIC

When my husband, Graeme asked me, "What do you think about buying an alpaca transport business?" I was surprised. Nevertheless ... Ley Blake Studstock Transport is now G & W Lunghusen Studstock Transport.



Graeme had been working for over 12 months at Pinjarra Alpacas with Ian and Angela Preuss, and would regularly say how much he loved his work and what great people they were to work for! However, I also knew that he loved a challenge and 'being his own boss'. The more I thought about it the more I felt that it was a great idea.

Graeme had met Ley Blake several times while working at Pinjarra. He was very impressed with the truck she drove,

which was only 18 months old. She had custom designed the cargo area to ensure the animals inside were warm, with feed and water available. It was also well ventilated, had drainage holes for waste removal, and had movable partitions to keep groups of animals separated.

Ley had decided to retire, but had not been able to find anyone 'suitable' to purchase the business. "After 20 years I don't want to sell the business to just anyone", she said.





When Graeme contacted her she was happy to learn that as well as working at Pinjarra, he and I owned our own small herd of 24 alpaca.

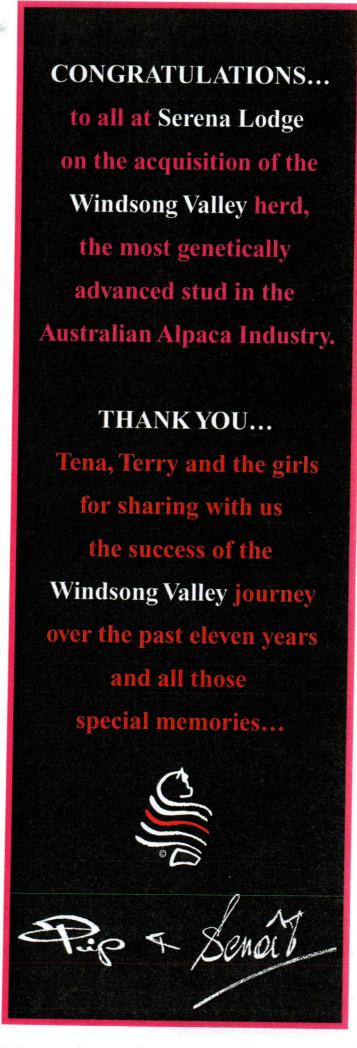
The deal was done and the business was purchased in late March 2006, and with Ley's wonderful help we began this new era! Graeme had gone on his maiden voyage with Ley on her last trip. They were away nearly a fortnight, with Ley showing him the best truck stops (with clean showers!); the best places for a meal (the Little Hartley Diner got a big rave there); and where to cross the border at Queensland for tick spraying and the dreaded JD paperwork. But most importantly he was introduced to a lot of breeders, who were all very supportive. At the start of the trip Ley was adamant that he could not drive the truck, as she preferred being the driver. However, by the end of this long trip she was happy for Graeme to take the wheel, thus completing his initiation.

Six months down the track the business is doing well, with only a few teething problems. Apart from the local trips we have found that we run a trip to Queensland about once a month and a trip to South Australia every 2-3 months. At time of writing we're organising a trip to Tasmania at the end of November. One of the things that we have found hardest is coordinating the many jobs that have to be done on these big trips. We have had up to fifteen separate jobs on a single trip (which means thirty stops), from transporting single alpacas to groups of four or five.

With this in mind we have decided to start a web site, which will advertise our upcoming trips. We feel that in this way breeders have an opportunity to plan their activities to maximise transport opportunities. The web site will be up and running by mid to late October. The address will be www.graewen.com.au/transport and will be incorporated into our stud web site. Don't worry if you forget the address as it will be listed on the AAA Inc. web site on the For Sale - Goods and Services page with a convenient link. In addition we will have a new e-mail address: transport@graewen.com.au so that breeders can e-mail us directly with their requests.

We still keep in contact with Ley, who now has more time to enjoy her horses. Also, she has happily agreed to do the occasional trip for us when Graeme wants a break. We wish to thank her for all of her support, and would also like to thank all of the customers who made the transition across to us. Hopefully we will meet more of you in our travels!





Identifying and Tracing your Alpaca

THE MATIONAL EMESTORY DENTIFICATION SATEM

ANIMAL HEALTH AND WELFARE ARTICLE by Neil Daniell > Barachel Alpacas, South Australia > Chairperson, AAA Inc. NLIS-Alpaca Working Group

The National Livestock Identification System (NLIS) is Australia's system for permanent, whole-of-life identification and traceability of livestock.

The alpaca industry will be expected to participate in the NLIS for biosecurity purposes and to provide quality assurance in the marketplace. The NLIS can also lessen the social and financial impact of an exotic disease outbreak and provide assistance to alpaca breeders in the management of their alpacas.

Background

In the 1960s Australia carried out a cattle Brucellosis and Tuberculosis testing and eradication campaign. As a consequence, a traceability system was set up based on an identification number which was unique for every farm. This was the basis for what is known as the 'tail tag'.

The stimulus for the development of the NLIS came as a result of a number of international food safety scares.

During the 1990's, market demands for traceability of livestock, particularly by the European Union, drove the need for individual animal identification and the development of the NLIS database.

In 1999 NLIS was introduced into the cattle industry on a voluntary basis. By 2005, the NLIS was compulsory for cattle using an individual animal identification system. For sheep and goats born after 1st January 2006 a compulsory flock system has been introduced. The pig industry is progressing towards an identification system and other livestock industries are expected to follow.

In 2004, the Australian Alpaca Association Inc. in its current and future objectives outlined its plan to investigate the feasibility of taking the alpaca industry into NLIS and set up the NLIS - Alpaca Working Group to research and make recommendations.

The benefits of the NLIS

Biosecurity

Protection of our farms and the country as a whole from the entry and spread of unwanted pests and diseases is vital. The performance standards the NLIS supports will help maintain Australia's high level of biosecurity.

Quality and market assurance

The NLIS can improve our ability to maintain access to markets in an economic climate where the customer sets the product quality standards. Quality assurance criteria apply for any transaction as no alpaca breeder can afford not to protect their local, intrastate, interstate or overseas markets.

Ownership assurance

Under the NLIS, all stock must be identified with the relevant property identification code (PIC) before moving off property. PIC identification of all livestock assists in tracing ownership of stolen and straying stock particularly in times of natural disaster when fences have been destroyed.

Social and economic benefits

NLIS will not prevent a disease outbreak; however it can reduce the financial and social impact of a disease epidemic due to improved identification and traceability capabilities.

The National Traceability Performance Standards

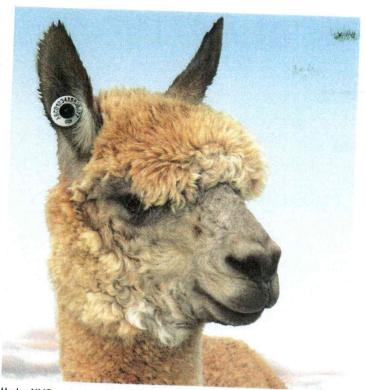
The NLIS is the means of reaching standards issued by Animal Health Australia which are deemed necessary for the quick and accurate traceability of livestock for biosecurity and market assurance. They require that the lifetime movement of stock can be given within a specified time.

The traceability system

The NLIS uses a range of tools to achieve the traceability goals:

The Property Identification Code (PIC)

The basis of the NLIS is the property identification code (PIC). The NLIS requires all properties on which alpacas are run to be registered, irrespective of how many animals are on the property; this will assist in locating properties if there is a disease outbreak or a natural disaster. Even though PIC registration is not yet compulsory in all states, the AAA actively encourages all alpaca property owners to register with the relevant State authority. In most states this is the Department of Primary Industries or Agriculture. In NSW a PIC is obtainable from the RLPB. Under the NLIS, properties must have a PIC number prior to the movement or sale of animals. This is not negotiable. 'NO PIC - NO SALE.'



Under NLIS each alpaca has its own unique identification, usually in the form of a tag

Identification

Tags are the visible aspect of NLIS.

Identification options to be considered are:

- Plain tag (Herd use). Tag bears the PIC number only which identifies a property but is not suitable for individual animal identification.
- Plain tag (individual animal with a database). Tag carries the PIC number on one side and a unique animal number on the other. Better technology makes it almost redundant for individual identification. Plain tag systems result in too many recording errors and restrictions and are not the preferred option for traceability.

Radio Frequency Identification Device (RFID) or Electronic Identification Device (EID). This can be a tag, subcutaneous microchip or a bolus which is inserted orally to remain in the rumen of an animal and accompanied by a matching tag. Electronic devices contain a microchip encoded with a unique number linked to the PIC of the property of origin. Animals are marked with the device only once in their life.

Electronic methods allow for manual reading or the automation of reading the device and transferring the information. The electronic method is more accurate than manual systems and better for on-farm management where, through the optional integration of readers, scales and computer software, benefits can be improved management and breeding decisions, less paperwork and time saved in data collection and better individual animal data accuracy. Benefits of this technology should flow onto the alpaca show circuit.



Optional electronic tag readers can assist management with accurate data recording

A central database is integral for use with RFIDs and reaching the performance standards required of the industry. A database would contain a register of all of the NLIS devices produced, animal movements and animal and property status and be accessible by authorised sectors of the livestock industry.

National Vendor Declaration

National Vendor Declarations (NVDs) provide a written mechanism for the transfer of information on the history of livestock consigned for movement or sale. NVDs are linked to livestock consignments by the PIC.

Summary

The National Livestock Identification System will not be forced upon the alpaca industry by government. The introduction of NLIS could take a few years but in that time the alpaca industry, through the National Traceability Performance Standards, does have a responsibility to its participants and to other livestock industries which eventually will apply pressure to conform.

The NLIS can greatly reduce the financial and social impact of a disease outbreak due to the enhanced traceability of alpacas. Most importantly it brings assurance of product quality, markets and ownership with the opportunity of improved herd management.

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Further reading

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Acknowledgements

Denice Rendell, Senior Animal Health Consultant, Disease Surveillance, PIRSA.

New Label, New Staff at AAFL

FLEECE ARTICLE by Michael Talbot > Managing Director, AAFL

Business is booming at Australian Alpaca Fleece Ltd. (AAFL) and with the introduction of our new label, Australian Alpaca Connection, AAFL identified the need for dedicated sales staff to promote our product as well as develop more strategic partners.

Recently joining AAFL are Ian Johnston and Jenn Worland. We hope that Ian's vast experience in selling homeware products both nationally and internationally will open the doors to the major department stores and specialty chains here in Australia, while Jenn will focus on product design and development as well as product sales.

I am also delighted to announce that Matthew McAninly has returned to AAFL after gaining international experience working with alpacas in the USA and England. Matthew originally joined our classing team in 2004 after graduating from a classing course at the Gordon Institute of TAFE, Geelong. He is continuing his studies in Bachelor of Science (Agriculture). Matthew will be responsible for communicating and working with the growers to ensure that we get as much fleece in as possible. This year's target is 65 tonne, approximately 20 tonne above what we got last season, so it's a huge task.

A few words from Ian Johnston, National and Export Marketing Manager for the new wholesale product division within AAFL.

Establishing the Australian Alpaca Connection brand in the domestic and export market is a challenge but with quality product development and smart marketing, I am confident of success.

Textiles has been my career since attaining my degree at the Scottish College of Textiles, Galashiels as a woollen and worsted fabric designer. My experience since leaving the UK many years ago and thereafter residing in five countries, has given me great knowledge in product development, marketing and selling skills.



In the late 60's I had the occasion to blend alpaca with lambswool in creating menswear fabric for the leading fashion houses of London such as Burberry and Aquascutum, and it is now quite befitting to be using this wonderful fibre again.

The following years of international experience encompassed a position in New Zealand, from where I came to Australia in early 1990 to work with Macquarie Textiles Group. After five years I departed for Asia before returning to Australia in 2000 when I joined Creswick Woollen Mills and set about launching them into the competitive consumer product market from very humble beginnings. Many of you will be aware of the trials and tribulations experienced by Creswick Woollen Mills and the Australian Alpaca Co-operative Ltd., as it was called then, in processing the raw alpaca fibre in those earlier years. However, since that frustrating period many obstacles have been overcome, resulting in a better understanding of the performance of alpaca fibre and how it should be used and treated during processing.

A few words from Jenn Worland, Sales Executive

I come from a family of wool growers so I have an affinity with natural fibres. My personal background is in textile design, so the triple role of sales, product development and design work is a dream come true.

I have worked in the weaving industry both as a designer and consultant for 15 years and have been involved with mens and ladies apparel, homewares and both domestic and commercial furnishings.

I studied at RMIT, Melbourne and have both a Degree and Masters in Textile Design and in recent years I have taught at RMIT in the Textile Design Degree Program. I also have a large weaving loom at home on which I enjoy weaving floor rugs.

It is a very exciting time to have joined AAFL at this formative stage of development of the new range of alpaca products. I feel privileged to be working with such a beautiful, luxurious fibre but we should not lose sight of our goal to make this venture a financial success.

L to R: Matthew McAninly, Jenn Worland, Ian Johnston

Celebrate Australia Style in Shanghai

FASHION ARTICLE by Michael Talbot > Managing Director, AAFL. PHOTOGRAPHY by Michael Lucas

Together with its strategic partners, Australian Alpaca Fleece Ltd. was the gold sponsor for the *Celebrate Australia Style* in Shanghai in 2006, which included the Shanghai Fashion Show on 28-31 October.



At the Shanghai Fashion Show AAFL launched its new homeware products range under the new label, Australian Alpaca Connection. In a specially built marquee the range was presented to the 600 guests and a host of media by eight female models and two male models all dressed in white.

The products, incorporating blankets, quilts, pillows and throw rugs were innovatively displayed using leather straps and buckles to attach them to various parts of the models' bodies and were a big hit with the audience.

The highlight of the show was the arrival of two white alpacas that had travelled 20 hours from a farm in China's northern Shanxi province, near Beijing, to be paraded down the catwalk to the absolute joy of all present, many of whom had never seen an alpaca before.

Also featured in the fashion parade were garments from he spring/summer collection of Ess. Hoshika and some uperb outfits in fabric made especially for the parade y Judy Craig of Becreatif Alpacas in Victoria. The pectacular fabric is felted alpaca on silk and AAFL will be orking closely with Judy in the future in a new strategic artnership.

October AAFL shipped its first container to China nder the new label, *Australian Alpaca Connection*, and we vited guests from all over China to attend the Fashion low. It is anticipated that following on from the success of is promotion more orders will head to mainland China.

ne publicity we received from this event as featured on television, radio and wspapers in China as well as hitting the istralian media in several states. There is doubt that the Australian AlpacaMark really becoming international.











Magical Melissa (and Amazing Annette)

ANIMAL HEALTH AND WELFARE ARTICLE by Denise Moysey > Arcadian Alpacas, South Australia

In the same way that we would not seek physiotherapy treatment from our local GP, veterinarians do not provide the full range of therapeutic services needed to maintain our animals in full health. Just as physiotherapists play an important role in keeping people in all walks of life physically active and well, animal specialists exist to help our pets and bloodstock. However, very few of us might consider seeking the help of one, more correctly called a manipulative muscle therapist, for our alpacas.

In the Adelaide Hills we are fortunate to have access to the services of Melissa Simmons, an experienced manipulative muscle therapist. Melissa has specialised in the treatment of horses and dogs for 23 years. Her initial training was done at Roseworthy Agricultural College at Roseworthy in South Australia, where she studied horse husbandry, anatomy and physiology. Her practical learning came through several years working with an experienced manipulator.

We learned about Melissa approximately eight years ago and although she had very limited experience with alpacas, she was prepared to examine and try to treat our animals. All of our alpacas are halter-trained and all the animals treated by Melissa to date have been female and either non-pregnant or weanling. The alpacas' natural tendency to cush has proved useful and enabled Melissa to work her spinal manipulations safely. Initially, Melissa approached them for treatment as she might with horses but has gradually refined her alpaca methods, using more dog treatment techniques and modified horse treatments. Her breadth of knowledge and willingness to explore the best methods for alpacas, as well as her quiet and patient demeanour, has meant that we have had some great successes. On busy days Melissa is assisted by Annette Warendorf, a horse specialist.

Case study 1: Dreambaby – a simple case

A 4YO female who flinched away when pressure was applied to the midspinal area. This female always rolled onto her side during matings, despite being significantly bigger than most of the males she encountered. In every other way she was normal and healthy and had no problem conceiving, carrying pregnancy etc. Melissa's examination revealed some anomaly in the vertebral alignment in the tender area. She used her horse treatment technique in this instance. A follow up visit also detected tight spots in the muscles and nerve pathways down the back of both hind legs. After treatments by manipulaton and trigger point therapy, Dreambaby sat completely upright throughout her next and subsequent matings.



Case study 2: Jemma – a complex case

A 3YO female who came to us for rehabilitation. She was physically small, appeared to have been nutritionally deficient during her life (very knock-kneed and appeared stunted), was currently very thin, feeding a cria and appeared to be in great pain in her lower back, pelvic and hind leg area. I guessed it was a pinched nerve.

This is a great case study because it utilises all animal resources for Jemma's rehabilitation – veterinary, therapist and nursing care. We first had our vet examine her. He felt she may have had a broken pelvis. He prescribed anti gastric ulcer (Carafate) and anti-inflammatory (Cu-algesic) treatments. We carefully commenced on an increasing nutritional path and then had Melissa examine her.

Melissa was not initially prepared to do any manipulative work in case there was an unhealed fracture but did do a lot of work on the nerve pathways. This poor animal had sore spots all over it seemed! Our next move was to have the

pelvic area X-rayed. Much to everyone's delight there was no sign of either fracture or arthritis, although the pelvis was slightly deformed, being a little flattened and wider on one side, but otherwise she seemed sound.



Jemma with weanling daughter Mitzi. Note how Jemma is standing with her hips slightly hunched, hind legs tight and tucked abnormally underneath her

With this positive information, Melissa was then able to follow a programme of manipulative treatment over a period of about two months. We continued with the Carafate and Cu-algesic. After only a few weeks Jemma already looked a different animal - increased nutrition obviously helped enormously, but with the gradual removal of her pain and her increased mobility, the brightness returned to her eyes and she began to take a real interest in her surroundings. Happily, Jemma has returned to good health and has been known to lead the herd astray by dancing away up the paddock! She does seem to have a structural problem (minor scoliosis?) but after the treatments by Melissa, and her 40% weight gain, Jemma is now one happy, healthy alpaca! It was after this 'miraculous' recovery by Jemma that the title of 'Magical Melissa' was bestowed because no one really believed that such a positive transformation was possible and it is certain that veterinary and nursing care alone would not have achieved the same result.

Case study 3: Priss - a simple case

A 9YO female who had lost her early pregnancy, possibly because of rough physical contact from a larger female. Seen to be on her own and sitting down more than normal. Demeanour and appetite still good.

Examination revealed a problem in the spine immediately behind the pin-bones and extreme tightness and spasming in the loin muscles. This was corrected by manipulation and deep massage, as in dog treatments. Two further examinations at one and two week intervals revealed misalignment in the sciatic nerve down one leg, which was causing sharp pain in the pelvic area. Manipulation of the sciatic nerve was the same treatment technique as for horses. Subsequent to these treatments, Priss's back is now strong and without pain and she is again running with the mob.

Case study 4: Pixie - a medium complex case

A very docile 9 months old female weanling was noticed to be less active than previously and tight in her hind leg action when running with the mob. Based on her running action, my initial thought was low vitamin D or selenium, but her doses were well up to date. She showed no lameness and nothing definitively wrong and really only came to serious attention when we began to handle her for haltering and noticed she flinched in apparent pain when her back was rubbed.



ith Pixie safely in cush position, Annette holds her neck still while elissa makes an adjustment to the spinal alignment

Examination revealed extensive misalignment along the length of her back and a large amount of associated tension and spasming in the back muscles. After the first treatment, the spinal alignment was firm but the muscles remained tight and spasming. After the next treatment the muscles were much improved but another sore spot was revealed in the spine, close to the shoulders. Further examination drew attention to the nerves down her side, behind the shoulder. A dog treatment technique was applied and we are now observing. Pixie has been treated by spinal and nerve adjustment and trigger point therapy (acupressure). She has also been given Cu-algesic to reduce inflammation.

Case study 5: Madonna – very simple case

A 9 month old female who had developed a 'roachy' backline and who seemed to look miserable. We had even dubbed her 'Misery Boots' because of her expression!

Examination revealed three very distinct sites of misalignment in the spine which responded perfectly to manipulation with her backline returning to normal and her demeanour improving immediately.

The causes for these 'injuries' are pretty unknown. With Dreambaby we suspect it was her struggling when being laid down for shearing (she was a big strong girl); with Jemma, her less than perfect conformation, lack of nutrition and the birthing process probably all contributed to her condition; Priss seems likely to have been flattened by a bigger animal but Pixie and Madonna may simply have hurt themselves in youthful exuberance or been knocked by a playmate. Certainly shearing is a time of risk for all the animals, and mating can be difficult for females if they are forced down awkwardly or try to move when pinned under a large male and males are at risk of being rammed side-on or shunted by their rivals.

Whatever the causes, we have certainly found it is worth thinking 'outside of the square' when animals are noticed to be quieter than normal, less active or looking 'miserable' but possibly no other obvious issues. Unfortunately not everyone will have access to a trained manipulative muscle therapist for their animals, but, if you can find one who is prepared to adjust their methods to suit alpaca treatment, our experience is certainly that both you and your animals will benefit.



Melissa checking along Pixie's spine for misalignments and muscle spasm



Melissa applies some trigger point therapy to relieve Pixie's tight, spasming muscles

Control of Paralysis Tick in the Alpaca

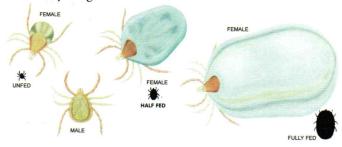
ANIMAL HEALTH AND WELFARE ARTICLE by **Liz Coles** > Longueville Alpacas, NSW > AAA Inc. Animal Health, Husbandry & Welfare Sub-committee

Attention all breeders - Spring brings the emergence of that Australian icon - the much dreaded Australian paralysis tick (*Ixodes holocyclus*) which is endemic along the East coast of Australia and is responsible for thousands of livestock deaths each year and, regrettably, the alpaca is no exception.

The 'tick season' varies from one region to another and may start as early as June/July but in some areas has been known to be active all year round. No matter what area you are in, always check with the local Veterinarian about when to expect the onset of 'tick season'.

Identification of the Paralysis Tick

The paralysis tick is relatively easy to identify. The legs form a V-shape line from the snout down the sides of the body; the first and last pairs of legs are brown and the second and third pairs are pale. The body is pear-shaped to oval and yellow-grey to light grey with a dark band on the sides; the face is oval but wider at the rear and brown; the snout is very long.



Effect on the Alpaca

If there is the slightest possibility that an animal is suffering the effects of envenomation by a paralysis tick, it is essential to thoroughly check the animal, particularly the eyes, ears, nose, mouth, external genitalia and under each leg. The paralysis tick secretes a neurotoxin in its saliva that causes a progressive paralysis of the hind limbs and eventually, respiratory failure. The tick may go unnoticed (particularly when the alpaca is in full fleece) until weakness and difficulty in walking develops, when urgent veterinary advice is vital.

A NSW DPI authority advises that paralysis ticks are very difficult to control because:

- > they are only attached to animals for a short period of about a week,
- > each non-parasitic stage may survive for up to nine months on the ground, and
- > they can attach to native animals which cannot be treated with a tickicide. (1)

How do we minimise the effects of the Paralysis Tick?

Good farm management and sound animal husbandry

Paddocks should be clean, free of scrub, bladey grass and lantana and, if possible, have minimal exposure to native fauna, notorious for carrying ticks. (Some breeders have erected chain mesh fencing as a deterrent). Vulnerable newborn and young cria especially should be kept in clean paddocks, certainly for the first few weeks. Paddock rotation, sowing improved native pasture species and keeping pasture short are also considered to be very beneficial. Where possible, breeders should be limiting the use of chemicals.

Separating stock

To minimise the possibility of exposure to ticks from other livestock, alpacas should be grazed in separate paddocks. Isolating new animals as they come on to the property will give breeders time to assess the condition of the animal.

Regular checking

While not always possible in larger herds, physically checking the cria daily is a certain way to detect ticks before paralysis becomes apparent. At least observing the herd each day is important; if an animal is not keeping up with the herd or is listless and has difficulty in walking, and especially in the hind legs, be very concerned. There is no room for complacency!

Guinea fowl

While lacking scientific endorsement, running guinea fowl with the alpacas is recommended by many breeders. It appears that the fowls eat the developing larvae and nymphs and help reduce the tick population. Don't be put off by the noise they make – they're only doing their job!

Ear tags

One breeder has suggested the use of Y-Tex Python ear tags as an alternative to tick collars.

Breeders' views and practices in the management of Paralysis Tick

Over recent months extensive investigation and discussion with many breeders in Queensland and parts of NSW have produced some interesting views and management practices. A summary of these investigations is as follows:

Responses are in italics.

Using Cydectin by injection - 10.

Most breeders use this agent specifically as a 'tick control' but not as a worm drench. The drug is used only during the tick season i.e. approximately six months and regular worm counts indicate either negative or very low worm burdens.

Using Cydectin as a pour-on - Nil.

Dog Tick Collar - 10.

It is essential NOT to trim the end of the collar but to leave a 'tail' to allow for the fleece growth on the alpaca's neck.

At what age is the collar applied?

Responses varied from one day old up to 12 months of age.

What period of time was the collar on the alpaca?

Responses varied from 3 months up to a weight of 40 kgs.

What brand of tick collar?

Frontline - 1; Virbac - 1; Kiltix - 3; Preventic - 3.

Other methods?

Bayticol Spray - 2; Amitraz - 1; Taktik - 2; Dectomax - 1. Note: Bayticol ® Pour-On was withdrawn from the market in 2002.

At what age is tick control commenced?

Responses varied from one day old up to 12 months of age.

f you have lost an alpaca to paralysis tick, at what age and what tick control prevention was in use?

Several breeders reported losses ranging from 6 weeks to 2 years; some had used prophylactic measures, some had not.

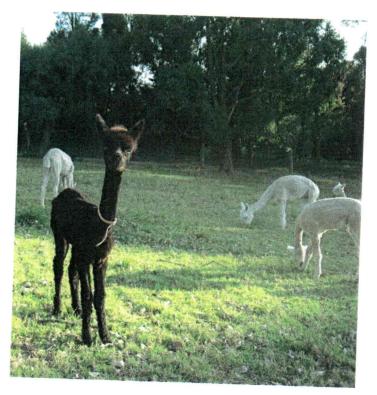
Do you also drench for internal parasites and if so, gent used?

Ivomec - 8; Panacur - 5; Q-Drench - 6; Equimax - 1;

Virbac - 1; Closicare - 5; Valbazan - 2;

First Drench - 1; Paramectin - 1; Nivermectin - 1. Other breeders indicated they only drench when clinical signs such as scouring and weight loss are evident.

hese responses clearly demonstrate the many and varied easures being used to control the paralysis tick. However, with so many prophylactic measures there is frequently a sy-off'.



The availability and use of so many agents on a regular basis, particularly worming drenches, may assist with tick control but can also create drench resistance in internal parasites such as Barbers Pole Worm – a very serious threat to sustainability.

It must also be emphasised that there is no veterinary product registered for exclusive use for ticks and alpaca. This is also the case with tick collars so breeders, please be aware.

Conclusion

In conclusion, the Australian paralysis tick will always be a part of some regions of our landscape and those alpaca breeders will have to learn to live with them! As with so many management practices, any prophylaxis is dictated by the environmental and climatic conditions together with the breeders' experience and herd size. Breeders can try many different techniques which will minimise exposure but there is no sure way to prevent paralysis occurring in alpacas.

Further Resources

Further information can be obtained from:

- > www.dpi.nsw.gov.au/primefacts
- > www.pethealth.com.au/index
- > Tick Paralysis in Farm Animals in Australia, NSW Agriculture Agnote DAI-267 2nd edition, Sept 2003

References

 Agriculture Today, "Farmers deal with loss of chemical", Paul Freeman, 28 Sept 2006.

Acknowledgements

- > NSW Agriculture
- > NSW DPI, Wollongbar
- > All the breeders who gave so freely of their time to share their expertise and experiences.

The Royals 2006

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

Royal Adelaide Show

by Jolyon Porter > Convenor

This year's Royal Adelaide Show was a very successful event for all concerned. Our guest judge, Jill Macleod came over from Canada especially for our show, and her perspective on our animals proved very interesting. Her presence seemed to have had a positive effect on animal numbers with a 25% increase in alpaca shown, which included a nice sprinkling of interstaters trying to wrest some of the silverware away from the locals.

The weather for the show was exceptionally good, fine and sunny, not too cool and not too warm. The shed was again decorated nicely with colourful banners and branches of tagasaste, and a tasteful fleece display.

In preliminary discussions with the judge prior to her seeing the animals, she felt that she would be able to knock the classes over fairly quickly, as she was quite used to judging numbers of animals greater than that in our show. In reality though, she ended up taking a lot longer than anticipated.

She was clearly agonising over a number of the classes due to the consistently high level of quality presented to her.

Supreme Champion Huacaya Jolimont Warrior

When asked if she was impressed with what was on show, she replied, "Absolutely. I was very impressed with what I saw today and the quality overall. Out of all the countries in the world that I've judged in, this line-up here could stand up anywhere. So they are certainly very high quality and just a beautiful group. I'm very pleased with that."

As is our habit, Friday saw the Suri classes first into the ring, and after the judge's deliberations Saxon Farm Andys Bendix, owned by Beth and Dan Males of Saxonsuri, was awarded the top prize of Supreme Suri. The Huacaya classes followed and after the lengthy judging process, Jolimont Warrior, owned by Ambersun Alpacas and Ichiban Alpacas, came out on top with the Supreme Huacaya trophy.



Judge, Jill Macleod

Jill returned to the showgrounds on Saturday to complete her judging duties with the fleece sections. Here the trophies went to Wilari Park Galliard, owned by Fleur De Lys Alpacas, for the Champion Huacaya Fleece, whilst Mundawora Zarion, owned by Mundawora Alpacas, took home the Champion Suri Fleece award.

Many thanks must go to our Judge, Jill Macleod, the show convenors, and the hard working volunteers who helped to make this show a great success.



Supreme Champion Suri Saxon Farm Andys Bendix

Royal Brisbane Show

by Camilla Smith > Convenor

The 10th Royal Brisbane Show may not have drawn the numbers of entries we would like but those participating reported the event as being one of the smoothest running and enjoyable Royals to date.

Attendance days were changed for the first time this year due to a clash of dates with our National Conference in Adelaide. Monday, Tuesday and Wednesday being people's days, traditionally the largest days of the show, were our days. This gave attending studs the opportunity of exposure to a larger percentage of the public.

The RNA has come to realise the great attraction alpacas prove to be when given the correct exposure on the grounds and it appears that we may retain this window for the future.

It is recognized that those breeders otherwise employed had difficulty in attending on these new days, which contributed to reduced entries. This is an important factor being addressed for 2007. However it is agreed that an arrival time of 3.00pm on the Monday and commencement of departure at 3.00pm on the Wednesday places less stress on our animals and less stress on our long distance travellers and interstate exhibitors.

The new arrangement for entry and exit at the door to our pavilion also proved a winner. The staggering of loading

oreme Champion Huacaya Sunline Elvis

times and 'all hands on deck' approach proved we can turn a laborious job into a precision exercise.

We were fortunate to have Allan Jinks to judge both our fleece and animal entries. Allan's expertise in the industry is unsurpassed and his constructive comments and advice in discussions after the judging were greatly valued. Also in attendance was Kerry Dwyer, performing one of his last duties as our National President in presenting a trophy to the *Queensland Alpaca of the Year*.

Congratulations to all the ribbon winners especially Sunline Alpacas with the Supreme Huacaya, Sunline Elvis, Paltarra Park with the Supreme Suri, Paltarra Hurricane, Silcron Alpacas with Champion Huacaya Fleece, Silcron Anamaya, and Beavona Lodge Suri Stud with Champion Suri Fleece, Beavona Lodge Jesse Jack.

New fleece posters this year added to the ambience of the display area but we still lack the numbers of entries. I would like to encourage those who cannot bring animals to think ahead and select fleeces at shearing that you may wish to enter in 2007. Winning fleece ribbons can bring so much credibility to your stud.

After 10 years of discussion, organisation, participation, change of entry and exit points, change of position, and what sometimes felt like utter chaos to me, I think we can all be proud of our rise to recognition by the Royal Show Society. This could never have happened without the loyal support of my stewards, whom I appreciate so much and you, the exhibitors.

We will not rest on our laurels ... there is always work to be done. We have set the scene ... we now need to fill the stage ... more animals and more fleece in 2007. ■



Supreme Champion Suri Paltarra Hurricane

Royal Hobart Show

by **Helen Dowd** > Convenor

This year, for the first time, the Royal Hobart Show Alpaca Section was held over two days instead of the usual four days. The reduction in the number of days was due to members' requests and the availability of the sheep pavilion for two days, which we believe will be the new home for the Alpaca Section in the future. The pavilion is a vast improvement on the marquee that has been available for the last two years.

We were fortunate that Roger Haldane agreed to officiate as our judge, as this year it was especially hard for us to secure a judge because of the clash with the National Show and Sale being held at the same time.

This year's Royal was a great success with awards being spread among a number of breeders.

We also had non member exhibitors showing their wethers for the first time and hope that they will continue to do so in the future.

The Supreme Champion Suri was bred and shown by Alan and Colleen Froome of Chakaya Alpacas. He is Chakaya Avalanche, a solid white Adult Male. The Champion Suri Fleece was also presented by Chakaya Alpacas and was won by Chakaya Keeley.

The Supreme Champion Huacaya was bred and shown by Irina Abbott of Xanthe Stud. She is Xanthe Charlotte, a nine month old fawn female.

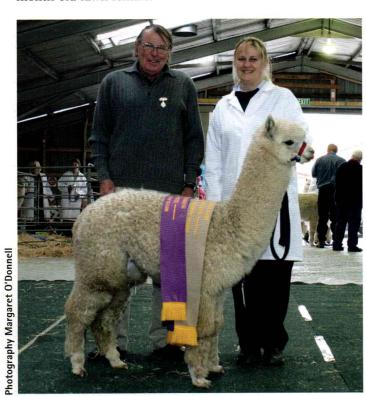
The Champion Huacaya Fleece was awarded to Dowpaca Ranee (solid white) and was presented by Helen and Mike Dowd of Dowpaca Holdings.

It was very pleasing to see the friendly rivalry, camaraderie and co-operation among the exhibitors and the stewards assisting in their different roles. Everything ran smoothly and even the snow falling on the Friday evening and Saturday did not deter members from arriving at the pavilion with their alpacas again on the Saturday morning.

Congratulations to all.



Champion Suri Fleece Chakaya Keeley



Supreme Champion Huacaya: Xanthe Charlotte Apology to Supreme Champion Suri Chakaya Avalanche due to unavailability of photo



Champion Huacaya Fleece Dowpaca Ranee

Royal Melbourne Show

by Geoff Hargreaves > Convenor

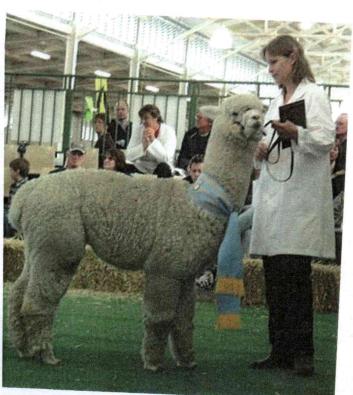
The long-awaited redeveloped Royal Melbourne Showgrounds were unveiled on the first day of the show and soon visited by record crowds. The alpacas were comfortably penned in the refurbished, heritage-listed Nicholas Pavilion, with an overflow into the pavilion next door. Penning was provided for 425 alpacas and there were 75 fleece entries to be judged on the Friday by David Williams.

For the first time in my memory, we had well-ventilated, spacious accommodation. The pens owned by AAA and brought from Canberra for the Show assisted the animals to remain unstressed throughout.

Located on the main route into the Showgrounds from the car park, we were visited by thousands of people over the three days and there were many who stayed to watch and understand some of the judging. On the Sunday, Rhys Owen's pied piper conduct of the Junior Handler competition was a hugely popular hit.

Isbel Plunkett and some of the family were welcomed to the Exhibitors' Meeting as exhibitors and friends participated in a short observance for Bill following his sad passing a short time before the Show.

Lyn Dickson found great depth and quality in the Junior Huacaya classes on Friday afternoon and the quality continued into the older Huacaya classes on Saturday.



preme Champion Huacaya Camelot Tor

The champions' line-up for the judging of the Supreme Champion Huacaya was an all white affair. Camelot Tor, owned and bred by Julien and Andrew Nicolas, succeeded as in shows earlier in the year, proving him to be an outstanding male.

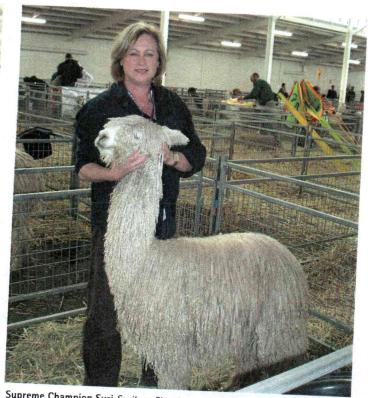
The attendance rate of Suris continues to be remarkable and 102 animals were presented for judging by Allan Jinks.

The number of entries in the Junior Female white and fawn classes warranted four ribbons and five were awarded in the Junior Male White class. As with the Huacayas, the champions' line-up was all white. Jill Short's Surilana Piccolo was awarded Supreme Champion.

Fleece judge, David Williams, was impressed by the quality and presentation of the fleeces in the competition.

Illawarra Yucatan won Champion Huacaya Fleece with Alpacaspecialist Dynasty as Reserve. The Champion Suri Fleece was won by Chiquita Pharoah exhibited by Jillian and Russell Holmes and Gloria Davis and Julie Wilkinson's Baarrooka Cordela was Reserve Champion.

Congratulations to all exhibitors for another strong, quality show which educated and entertained the public and other alpaca enthusiasts. We acknowledge the hard work of the RAS staff, the Committee and officials.



Supreme Champion Suri Surilana Piccolo

Royal Perth Show

by Ron Raynor > Regional Marketing Representative

A record 250 alpacas entered in this year's Perth Royal Show demonstrated that breeders in WA are still strongly supporting the show circuit as a means of benchmarking their alpacas against others in the industry.

New Show Convenor for this year, Chris Ravenhill came through his baptism of fire with flying colours. Chris had many first time helpers on his committee and their positive attitude augers well for the future of Perth Royal Shows.

With breeders now being able to take alpacas home after four days, the challenge is on to present an innovative industry display for the remaining four days of the Show.

Judge, Wendy Billington had a difficult task in many of the sections to separate the eventual winners but was able to get through the enormous task of judging 95 fleeces and 250 animals over two days.

The Junior Huacaya sections were particularly strong with 26 Junior Females and 43 Junior Males being entered. With 25 entries in the Junior White Male class it was necessary to split this class into two groups of 6 to 9 months and 9 to 12 months for the first time at a show in WA.



Supreme Champion Huacaya Faversham Armani

The Supreme Champion Huacaya was Faversham Armani, a 10 month old male owned and bred by Sue Wiltshire.

The top Huacaya fleece award was won by Eringa Park Tuscan, exhibited by Rivergum Rise Alpacas and who was also Reserve Champion in the Senior Male Section.

Margamon Alpacas won the Champion Suri Fleece with a fleece from Margamon Inca Prince who was 46 months old when his winning fleece was shorn.

The Most Valuable Fleece was won by Encantador Alpacas with a 12 month fleece shorn from their Encantador Marionette at 20 months of age.

Windsong Valley Alpacas scored success in the show ring as the influence of Champion sire, Windsong Valley Iceman continues to dominate with three of his progeny winning the Huacaya progeny group.

Best Wether was won by Faversham Christian and the Best Fancy was a roan/grey/white male, Paradise Sentinel exhibited by Pam and Len Brown.

The eight Suri Championship sections were shared by five breeders this year with Wesuri Alpacas winning Supreme Suri with Bella Vista Cusco, a 39 month old solid white

The Suri progeny group was awarded to Katydid Amador Legend, which was a third consecutive win in progeny groups for breeder, Kath Williams.

Full results of the Perth Royal Show can be found on the WA Central Region web site at: www.alpaca.asn.au/wacent ■



Supreme Champion Suri Bella Vista Cusco

Vale Bill Plunkett

SHOWING AND JUDGING ARTICLE by Maree Buck > AAA Showing & Judging Sub-committee

Members of the Australian Alpaca Association Inc. (AAA) were deeply saddened by the news of Bill Plunkett's passing on 10 September 2006.

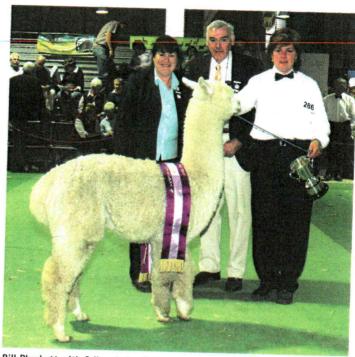
When I was first approached to write a few words about Bill my first reaction was that I could not do it, however on reflection I thought that Bill certainly deserved to have a small story written for him as he shared his life with so many alpaca members.

Bill's story began with a family involvement in sheep breeding and, as a breeder of angora goats, he obtained management skills and solid experience in animal fibre. Having gained the background in wool and mohair over many years, Bill purchased alpacas in 1990. He became an accredited AAA Inc. Judge in 1995 and judged animals and fleece in all states at Regional and major levels.

Bill was passionate about alpaca and from his early years of involvement in the industry was an active member of his Regional committee, serving terms as President of the Victorian Eastern Region and even being co-opted onto other Regions' showing sub-committees. Bill assisted with the initial preparation of the AAA Showing Rules and continued to oversee their development throughout the years. He was also a member of the National Committee for many years during which time he assisted in the selection of the premises purchased by AAA which currently accommodate the AAA National Office. Bill served as the AAA Public Officer for a time and was the incumbent Chairperson of the AAA Inc. Showing and Judging Sub-committee at the time of his passing. He was the convenor of the AAA National Show and Sale on several occasions, ultimately judging the National Show last year together with fellow judge, Julie Bird. Bill was also a member of the Royal Melbourne Show committee and a past committee member of the Australian Sheep and Wool Show. He was also awarded a Life Membership of the AAA.

Bill spent a great deal of his time travelling throughout Australia as a Judge or Chief Steward, also convening training courses for Judges and Convenors in Australia and New Zealand. As well he ran courses to train young people for the Junior Judging competitions, which he ound very satisfying.

Over the many years of his association with the AAA, Bill nad built the reputation of being very fair and honest. He vas contacted almost on a daily basis by members seeking dvice on the AAA Showing Rules and when approached



Bill Plunkett with fellow judge Julie Bird (left) awarding 2005 National Supreme Champion Huacaya to Jenny Jackson

at a show for a decision on a possible breach of the Rules or clarification of a situation, all parties were usually satisfied without question due to the respect members had for Bill.

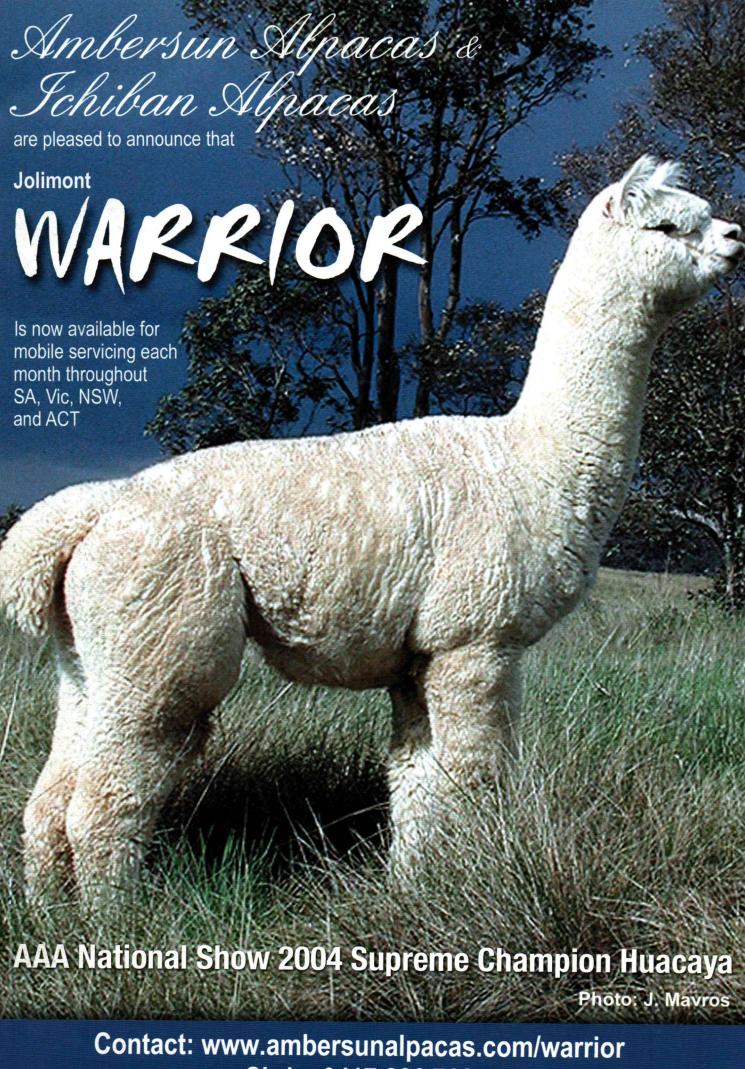
If Bill was involved with a show, he was usually the first to arrive and the last to leave. He was often accompanied by his wife, Isbel who was always seen helping, either by setting up the fleece tables and fleeces, the trophy tables or with whatever needed to be done.

I believe the AAA and its members owe a huge debt of gratitude to Bill and his family for his tireless and energetic efforts. He will be sadly missed, not only for the time he gave so freely, but for his happy and caring disposition.

So when you next attend an AAA show, just before the first animal enters the judging ring, look down and make sure you have clean shoes and think of Bill Plunkett.



Bill Plunkett (centre) with Bill Robbins at the Junior Judging -Royal Melbourne Show 2000



Chris: 0417 826 762

PERUVIAN AUZENGATE

His reputation has earned him a position in the history of the Australian Alpaca Industry as the Sire, Grandsire and Great Grandsire of hundreds of Australia's Champions.

Passed away peacefully in his sleep 14/10/06



SEVEN AT SEVEN OFFER

In response to repeated enquiries, Fine Choice is prepared to make available for sale seven of Auzengate's coloured daughters, all pregnant to elite Fine Choice Sires, each priced at \$7000 (gst inc)*

Fine Choice Neffertiti	IAR 92614	SLF	mated to Flame	Due Dec 06
Fine Choice Chestnut	IAR 82171	SLBR	mated to Flame	Due Dec 06
Fine Choice Eva	IAR 66448	LF	mated to Flame	Due Jan 07
Fine Choice Bijou	IAR 50392	LBR	mated to Flame	Due Mar 07
Fine Choice Myra	IAR 66449	SDF	mated to Flame	Due Jan 07
Fine Choice Charlotte	IAR 55187	SLBR	mated to Flame	Due Nov 06
Fine Choice Lady Sophie	IAR 44155	SLBR	mated to Travolta	Due Apr 07

* Package price available, price may change after cria are born

Covering Sires:

Fine Choice Peruvian Travolta - solid white, imported Peru.

Benleigh Golden Flame - solid medium fawn (Benleigh Flame x Purrumbete Inti.)

For further information contact:
Chris Williams 0417 826 762 email: chris@ambersunalpacas.com

The Punch and Judy Show

BESTS DES MINES WHEEL WIND THE WEIGHT !

INDUSTRY ARTICLE by Ian Davison > Illawarra Alpacas, NSW

This is a story about the big spenders, the studs, the macho types, who travel extraordinary distances for expensive sex with multiple partners, boasting big egos, big reputations, and an addiction for MOET.

Kind of brings the alpaca industry to life, doesn't it?

But it is not Michael Flatley laying waste a chorus line of Irish beauties in an orgy of champagne and post-performance hubris, but rather the expensive act of Multiple Ovulation Embryo Transfer (MOET) that is attracting the serious attention of alpaca breeders around Australia.

The key is the careful selection and appropriate preparation of genetically elite donor females. These girls can produce up to twenty embryos from a single joining to an elite male, each one of which can then be taken and reimplanted into less genetically desirable females, who in turn bear them to maturity, deliver them, and raise them as their own.

This is the science of multiple ovulation embryo transfer that is reshaping the alpaca world, and rapidly accelerating the genetic improvement of the Australian alpaca.

But whilst the technology is new, the problems are more complex than the science alone. The matter of a fair and reasonable service fee for MOET matings remains a difficult one, so much so that many owners are choosing to withhold their males from embryo transfer programs.

Present fee schedules range from charging out at the rate of a full service fee for every embryo implanted, to the complex matrix published by Illawarra Alpacas, which recognises a flag fall, embryo implantation fee, and live embryo fee for every mating.



Whatever arrangement is agreed to, it is a fundamental premise of fairness that the arrangement is equally acceptable to the vendor and to the purchaser of stud matings, and that the risks and benefits are shared between them.

Some general premises should be recognised and accepted as fundamental to any fee schedule.

The attraction of MOET for the owner of the female (hereafter "Judy") is the opportunity to produce multiple 'copies' of a single joining of an elite female with an elite male in a very short time span, with the consequent benefit of accelerated genetic improvement, enhanced reputation in the show ring, and improved sales of stock.

The attraction of MOET for the owner of the male (hereafter "Punch") is limited principally to income produced by making his top genetics available to Judy. Although it might be argued that the production of multiple elite cria adds potential value to the male's reputation, and therefore his marketability and that of his progeny, that advantage is high risk and long term, and therefore not of practical value.



L to R: Dr Jane Vaughan preparing a donor female for uterine lavage after MOET mating.
Jane Vaughan and David Hopkins flushing the embryos from the womb by uterine lavage.
Dr David Hopkins searching the wash for eggs.



MOET is, as yet, a far from certain science, with a variable success rate which ranges from catastrophic to sensational. Harvest rates average between two and three embryos/donor, implant rates slightly less, and 'stick' rates of only about 60% of implanted embryos yielding live crias.

Providing a male for an embryo transfer program is an entirely different proposition to a drive-through mating. The male has to be prepared in advance by withholding him from other services for a few days, and then is usually 'flushed' with a single timed service at some chosen point before the MOET. This preparation is undertaken by Punch on behalf of Judy. Furthermore, the male has to be delivered to the place the MOET is being undertaken, usually Judy's stud, on a specified date, and for a period of time, that is dictated by Judy, usually resulting in a minimum half-day commitment, and frequently longer, for Punch. For the period of time the male is being prepared and used, there is a notional 'lost opportunity', during which time he remains unavailable for any other matings.

For Punch, charges need to cover (at least):

- The time taken to prepare, deliver, and return the male to and from the place of service
- A fee that recognises the qualities that make the male desirable for a MOET program (as opposed to single matings), namely, his genetic superiority
- A fair price for every live cria resulting from the mating

Generally, the issue of time and mileage for delivery of the male to the place of mating should be considered separately from the mating fees, as it is likely to vary widely depending on circumstances.

It is generally conceded that there is a risk of zero live cria resulting from any given ET joining. Judy accepts the unrecoverable veterinary costs as a part of that risk, but there may be no recognition of the cost of 'lost opportunity' to Punch unless that is specifically provided for in the mating contract. In essence, the fundamental benefit of a MOET program accrues exclusively to Judy; Punch has only one benefit, which is his fee. Any contract that does not recognise the risk of zero return to Punch, and compensate for it, is doomed to fail, since it will prove financially unsustainable.

MOET recipients waiting their turn



"The Matrix", excluding the actual fee charged for each component, is based on a formula:

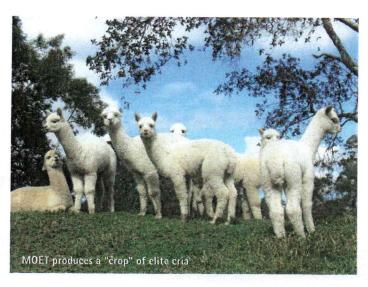
Flagfall + Flagfall= \$Total fee

The logic behind the matrix is as follows. Flagfall (F) is Punch's guarantee of a minimum and immediate return for making the male available for any given mating; live cria (LC) recognises the uncertainty that harvested embryos will result in live cria for Judy; and embryos implanted (EI) shares the potential windfall of multiple live births between Punch and Judy. The starting point is that the fee for a single cria born as the result of a MOET program should never be less than that charged for a single drive-through mating (in fact, it should be more, given the time and effort involved in making the male available).

'Flagfall' (F) is the service fee that applies for any one mating, irrespective of the outcome of that mating. Whilst it is Punch's guaranteed minimum income, it also effectively determines the level of discount given for multiple embryos resulting from a single mating (the discount rising with the flagfall), which I will show shortly.

'Embryos implanted' (EI) is a cost designed to share the early windfall of multiple embryos harvested between Judy and Punch: Judy has the pleasing scenario of multiple elite cria from the one joining, and Punch has the pleasing scenario of an increased early return for his efforts. This, and the flagfall, is recoverable within a week of service, providing Punch with some cashflow for his effort. Some have suggested that 'embryos harvested' (EH) would be more appropriate, given that Judy may arbitrarily determine 'embryos implanted' to Punch's penalty, but more will be said of this later. Suffice to say that EI is verifiable through the need to subsequently register progeny, whilst EH would necessitate a vet's statement.

'Live cria' (LC) recognises the fact that not all embryos implanted will survive, and is a payment deferred until 14 months after the service. This is basically a free line of credit extended by Punch to Judy. It purposefully commits Judy to declare all live cria within a short time of delivery, as its intent is not to allow Judy to choose which animals she may register and which she will not, short of significant congenital defects or early illness, but rather to declare all normal healthy live births.



All such animals, by virtue of their selected genetics, should be considered as potential show and stud quality, irrespective of their sex or colour, and therefore worthy of registration.

The way in which these various fees are structured has a significant impact on the allocation of cost, risk and reward between the two parties to the agreement. Given that the fee, F + EI₁ + LC₁, for a single live cria, is a predetermined constant (the drive-through fee), changes in one will affect the others.

Assume a matrix of 1000 + 100 + 600 = \$1,700 (line 48 in the matrix), for a male normally commanding \$1,700 for a single stud service.

Under this schedule, zero embryos still costs \$1,000; one embryo producing one live cria (1-1) costs \$1,700; 3-2 costs \$2,500 (average cost \$1250); 3-3 \$3,100 (\$1,033); 6-3 \$3,400 (\$1,133), 6-6 \$5,200 (\$867), and 8-10 \$6,800 (\$850).

A low fee for EI keeps the cost risk for embryos slipping equally low; raise EI and this increases Judy's risk, whilst increasing Punch's early return.

A low F means Judy has low risk from no embryos, but also a low discount for multiple conceptions. It also provides a poor initial return to Punch, but will provide almost full fees for each live cria. The low F will be offset by increasing EI (which gives Punch an earlier fee but Judy increased cost risk of slips) or increasing LC (which gives Punch a much delayed return, but Judy a very low risk).

If F and EI are reduced to zero, and full drive-through fees paid for live cria, Punch is likely to charge inflated prices for LC, to compensate for late payment and high risk.

If EI and LC were reduced to zero, Punch would get a single drive-through fee in return for Judy's opportunity to produce large numbers of cria from the one mating. This would be unacceptable to Punch, who would be likely to inflate F to compensate for the lost opportunity of sharing in the windfall of multiple cria.

A male will usually be used between one and three times for any single MOET day. As average embryo harvest rates per mating are greater than one, the likelihood of harvesting at least three embryos over three matings is high. In the above scenario, if Punch's male covered three females, with a disappointing 0-0, 0-0, 3-3 result, the cost would be (\$1000) + (\$1000) + (\$3100) = \$5100 (average \$1700), the same as 1-1, 1-1, 1-1 result, and the same as three drive-through matings. Using several joinings rather than one spreads the risk for Judy, and gives greater financial benefit to Punch.

Another consideration is the availability of recipients in which to implant embryos. Typically, in a MOET program, Judy prepares four 'recips' per mating. If the first flushing of the day produces a windfall of embryos, it is conceivable that there may be no opportunity for implanting embryos harvested from subsequent flushes. The order of flushings, and the priority given to the embryos of each male, is a decision made entirely by Judy. Consequently, Punch may find that the embryos harvested from the females to which his male has been joined do not have a home—that is, all recips have been used.

This potentially reduces his income to zero if there is no allowance for a flagfall, nor a guaranteed number of recips reserved for those matings. Hence, to acknowledge the concept of 'lost opportunity' to Punch, it is my suggestion that there be both a flagfall, and a prior agreement about the number of recipients to be guaranteed as available to embryos resulting from Punch's matings. That number, be it two or ten, will insure Punch from the lost opportunity of income related to the lack of possible recipients, and will be integral to whether Punch chooses to make his male available for the program or not. A further consideration might be the opportunity for Punch to provide his own recipients for any 'leftover' embryos, bearing the costs of implantation for embryos that might have otherwise been destined for the drain.

A major risk (or cost) for Judy is the possibility that no live births, or even embryos, may result from a given mating. My suggestion is that the fees for flagfall and embryos implanted for any one mating be then offset against the full fee for a normal drive-through mating, to be used by Judy at her discretion, making up any balance owed. This insures both Punch and Judy against the possibility of a null result, and effectively shares both the risk and the benefit.

A further consideration is the fitness of both males and females for a MOET program. It is intrinsically counterproductive to both partners in the program to submit alpacas for MOET which are not optimally prepared. The costs for doing so, to both Punch and Judy, are not inconsiderable, and constitute a major incentive to choose animals carefully, and to prepare them well. If a male does not perform well due to being too young, low fertility, overworked, or of low libido, both Punch and Judy have wasted their time and money. Punch is unlikely to be offered a return visit. Similarly, if females are under-prepared, of low fecundity, poorly nourished, or have genital infections, Punch is unlikely to offer his services again for those females.

An alternative approach to the matrix would be for Punch and Judy to consider sharing the embryos on a 50:50 basis, sharing also the veterinary and transport costs, but accepting that slip rates are a lottery to be borne individually by each party. Such a scheme would require that both parties were involved in the selection of females as well as males used in such a program, and each provide recipients appropriately prepared. The logistics of such an operation are such that it might well prove unworkable, but the notion at least accepts that the benefits and opportunities are equally shared.

In summary, the extra time, expense and trouble of a MOET program demands that both Punch and Judy be offered the opportunity for an adequate reward for their involvement. Judy will measure this in terms of live cria on the ground resulting from each program and the cost of each cria. Punch will measure it in terms of income generated and the time expended to generate that income.

My purpose in submitting this paper is to bring these various issues to the attention of all potential Punch's and Judy's, and to stimulate thought and discussion that will, hopefully, progress to become the basis of fair and standard practice in the conduct of MOET in the Australian alpaca industry.

THE MATRIX, describing stud service fees for use in a MOET program

Flagfall	Per implanted	Per live	(Drive	thru mat	ing fee)	. 197	- ANDER	Nu	mber of I	ive cria -	Total cos	t / cost pe	r cria		
i lagi ali	embryo	cria	0		1		2		3		6	1		15	5
\$1,000	\$150	\$550	\$1,000	\$1,700	\$1,700	\$2,400	\$1,200	\$3,100	\$1,033	\$5,200	\$867	\$8,000	\$800	\$11,500	\$767
\$1,000	\$100	\$700	\$1,000	\$1,800	\$1,800	\$2,600	\$1,300	\$3,400	\$1,133	\$5,800	\$967	\$9,000	\$900	\$13,000	\$867
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,000	\$100	\$500	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$500	\$200	\$700	\$500	\$1,400	\$1,400	\$2,300	\$1,150	\$3,200	\$1,067	\$5,900	\$983	\$9,500	\$950	\$14,000	\$933
\$500	\$250	\$250	\$500	\$1,000	\$1,000	\$1,500	\$750	\$2,000	\$667	\$3,500	\$583	\$5,500	\$550	\$8,000	\$533
\$500	\$300	\$600	\$500	\$1,400	\$1,400	\$2,300	\$1,150	\$3,200	\$1,067	\$5,900	\$983	\$9,500	\$950	\$14,000	\$933
\$500	\$300	\$300	\$500	\$1,100	\$1,100	\$1,700	\$850	\$2,300	\$767	\$4,100	\$683	\$6,500	\$650	\$9,500	\$633
\$500	\$300	\$700	\$500	\$1,500	\$1,500	\$2,500	\$1,250	\$3,500	\$1,167	\$6,500	\$1,083	\$10,500	\$1,050	\$15,500	\$1,033
\$500	\$500	\$300	\$500	\$1,300	\$1,300	\$2,100	\$1,050	\$2,900	\$967	\$5,300	\$883	\$8,500	\$850	\$12,500	\$833
\$500	\$500	\$500	\$500	\$1,500	\$1,500	\$2,500	\$1,250	\$3,500	\$1,167	\$6,500	\$1,083	\$10,500	\$1,050	\$15,500	\$1,033
\$600	\$600	\$300	\$600	\$1,500	\$1,500	\$2,400	\$1,200	\$3,300	\$1,100	\$6,000	\$1,000	\$9,600	\$960	\$14,100	\$940
\$1,500	\$0	\$0	\$1,500	\$1,500	\$1,500	\$1,500	\$750	\$1,500	\$500	\$1,500	\$250	\$1,500	\$150	\$1,500	\$100
\$0	\$1,500	\$0	\$0	\$1,500	\$1,500	\$3,000	\$1,500	\$4,500	\$1,500	\$9,000	\$1,500	\$15,000	\$1,500	\$22,500	\$1,500
\$0	\$0	\$1,500	\$0	\$1,500	\$1,500	\$3,000	\$1,500	\$4,500	\$1,500	\$9,000	\$1,500	\$15,000	\$1,500	\$22,500	\$1,500
\$1,000	\$100	\$100	\$1,000	\$1,200	\$1,200	\$1,400	\$700	\$1,600	\$533	\$2,200	\$367	\$3,000	\$300	\$4,000	\$267
\$1,000	\$100	\$200	\$1,000	\$1,300	\$1,300	\$1,600	\$800	\$1,900	\$633	\$2,800	\$467	\$4,000	\$400	\$5,500	\$367
\$1,000	\$100	\$600	\$1,000	\$1,700	\$1,700	\$2,400	\$1,200	\$3,100	\$1,033	\$5,200	\$867	\$8,000	\$800	\$11,500	\$767
\$1,000	\$100	\$300	\$1,000	\$1,400	\$1,400	\$1,800	\$900	\$2,200	\$733	\$3,400	\$567	\$5,000	\$500	\$7,000	\$467
\$1,000	\$200	\$100	\$1,000	\$1,300	\$1,300	\$1,600	\$800	\$1,900	\$633	\$2,800	\$467	\$4,000	\$400	\$5,500	\$367
\$1,000	\$200	\$200	\$1,000	\$1,400	\$1,400	\$1,800	\$900	\$2,200	\$733	\$3,400	\$567	\$5,000	\$500	\$7,000	\$467
\$1,000	\$200	\$300	\$1,000	\$1,500	\$1,500	\$2,000	\$1,000	\$2,500	\$833	\$4,000	\$667	\$6,000	\$600	\$8,500	\$567
\$1,000	\$300	\$100	\$1,000	\$1,400	\$1,400	\$1,800	\$900	\$2,200	\$733	\$3,400	\$567	\$5,000	\$500	\$7,000	\$467
\$1,000	\$300	\$200	\$1,000	\$1,500	\$1,500	\$2,000	\$1,000	\$2,500	\$833	\$4,000	\$667	\$6,000	\$600	\$8,500	\$567
\$1,000	\$300	\$300	\$1,000	\$1,600	\$1,600	\$2,200	\$1,100	\$2,800	\$933	\$4,600	\$767	\$7,000	\$700	\$10,000	\$667
\$1,500	\$100	\$100	\$1,500	\$1,700	\$1,700	\$1,900	\$950	\$2,100	\$700	\$2,700	\$450	\$3,500	\$350	\$4,500	\$300
\$1,500	\$100	\$200	\$1,500	\$1,800	\$1,800	\$2,100	\$1,050	\$2,400	\$800	\$3,300	\$550	\$4,500	\$450	\$6,000	\$400
\$1,500	\$100	\$300	\$1,500	\$1,900	\$1,900	\$2,300	\$1,150	\$2,700	\$900	\$3,900	\$650	\$5,500	\$550	\$7,500	\$500
\$1,500	\$200	\$100	\$1,500	\$1,800	\$1,800	\$2,100	\$1,050	\$2,400	\$800	\$3,300	\$550	\$4,500	\$450	\$6,000	\$400
\$1,500	\$200	\$200	\$1,500	\$1,900	\$1,900	\$2,300	\$1,150	\$2,700	\$900	\$3,900	\$650	\$5,500	\$550	\$7,500	\$500
\$1,500	\$200	\$300	\$1,500	\$2,000	\$2,000	\$2,500	\$1,250	\$3,000	\$1,000	\$4,500	\$750	\$6,500	\$650	\$9,000	\$600
\$1,500	\$300	\$100	\$1,500	\$1,900	\$1,900	\$2,300	\$1,150	\$2,700	\$900	\$3,900	\$650	\$5,500	\$550	\$7,500	\$500
\$1,500	\$300	\$200	\$1,500	\$2,000	\$2,000	\$2,500	\$1,250	\$3,000	\$1,000	\$4,500	\$750	\$6,500	\$650	\$9,000	\$600
\$1,500	\$300	\$300	\$1,500	\$2,100	\$2,100	\$2,700	\$1,350	\$3,300	\$1,100	\$5,100	\$850	\$7,500	\$750	\$10,500	\$700
\$2,000	\$100	\$100	\$2,000	\$2,200	\$2,200	\$2,400	\$1,200	\$2,600	\$867	\$3,200	\$533	\$4,000	\$400	\$5,000	\$333
\$2,000	\$100	\$200	\$2,000	\$2,300	\$2,300	\$2,600	\$1,300	\$2,900	\$967	\$3,800	\$633	\$5,000	\$500	\$6,500	\$433
\$2,000	\$100	\$300	\$2,000	\$2,400	\$2,400	\$2,800	\$1,400	\$3,200	\$1,067	\$4,400	\$733	\$6,000	\$600	\$8,000	\$533
\$2,000	\$200	\$100	\$2,000	\$2,300	\$2,300	\$2,600		\$2,900	\$967	\$3,800	\$633	\$5,000	\$500	\$6,500	\$433
\$2,000	\$200	\$200	\$2,000	\$2,400	\$2,400	\$2,800		\$3,200	10000	\$4,400	\$733	\$6,000	\$600	\$8,000	\$533
\$2,000	\$200			\$2,500		\$3,000		\$3,500		\$5,000	\$833	\$7,000	\$700	\$9,500	\$633
\$2,000	\$300			\$2,400		\$2,800		\$3,200		\$4,400	\$733	\$6,000	\$600	\$8,000	\$533
	+							ALL CONTRACTOR OF THE PARTY OF		FOR 1707 TO 1 A 1 A 1 A 1 A					
\$2,000	\$300		\$2,000	\$2,500	\$2,500	\$3,000	\$1,500	\$3,500	\$1,167	\$5,000	\$833	\$7,000	\$700	\$9,500	\$633
		\$200			\$2,500 \$2,600			\$3,500 \$3,800		\$5,000 \$5,600	\$833 \$933	\$7,000	\$700 \$800	\$9,500 \$11,000	\$633 \$733

EXPLANATORY NOTES:

Flagfall .. This refers to the cost of one non-refundable mating to any one nominated female, the nomination to be made prior to the time of mating. This amount is per mating, and is the "risk" for a buyer, but the only immediate return to the seller. Per embryo implantedThis refers to stud fees applying when the sire is used in a multiple embryo transfer (MOET) program, and several fertilised ova are harvested from the donor female and reimplanted in recipient females. This amount falls due on the day that the donors are flushed, usually one week after mating. It relies on the report of the vet doing the ET. It adds to the early return for the seller, but remains a relative risk to the buyer, as only 66% of implantations usually hold. Per live cria ... This refers to the additional fee applying to each mating when one or more live cria are delivered from the one mating to which the fee applies. This fee is due and payable 14 months after the date of mating. This is not payable until 14 months after the service, and is essentially a credit by the seller to the buyer. Cost per cria... This is the computed cost of each live birth when the mating is used as a part of an ET program, and all implanted embryos result in live cria.

In fact, only 66% of implantations are likely to progress to live cria. Negotiable terms... .The financial terms stated above are negotiable in exchange for either services to males whose genetics we may wish to access, or a share of the embryos harvested from joining to females whose genetics we may wish to acquire.

Live cria guarantee... Any costs incurred for any single mating which does not result in the birth of a live cria may be offset against the full cost of a drive through mating by the same male to the same female (or alternate male or female by agreement between the owners) if taken within 24 months of the original mating.

National Alpaca Fibre Seminar

"From Gate to Garment"

FLEECE ARTICLE by Merilyn Mathews > Daisy Bank Alpacas, NSW and Penny Pittard > Currabungla Alpacas, NSW

The purpose of this multi faceted seminar, held in Canberra in September, was to increase awareness of what happens to our fleece after it leaves the farm gate. It is hoped that knowledge of the processing, production, and research and development sectors will assist us all to give the end user the best raw material possible.

Synopsis of the program

Michael Talbot, Australian Alpaca Fleece Ltd

Michael opened the seminar and gave attendees a run down on current activities at AAFL. He made the point that markets have been found for all fibre produced from our animals, including the less desirable skirtings and coarser micron fibre. However, he pointed out that costs of scouring, classing etc. are currently \$4.14 per kilo, hence the inability to pay higher prices for the poorer quality fibre.

Michael advised that AAFL is to pursue the craft market in the near future. Fleece collection issues remain one of AAFL's main concerns, along with the need to improve communication with breeders.

Sandy Retallick, Alpaca Innovations

Next came the stunning Alpaca Innovations Fashion Parade produced by Softfoot Designs in conjunction with Pamela Darragh of Arts Events Management Australia. Sandy Retallick and Clancy Morgan showcased their own designs and also those of participating design students from Marleston TAFE in South Australia. The fashion parade was certainly a highlight of the day and everyone present was very impressed with the creations made with the fibre we produce. Sandy detailed the fibre content of the designs and outlined the many positive attributes of alpaca. Her final point was, "no other animal produces fibre that combines all these properties: the softness of cashmere, the lustre of silk and the lightness of goose feathers." Believe in Alpaca!

Brian Kitson, Adobe Park Alpacas, New Zealand

Brian spoke about value adding to our fleece. He used the example of making socks from raw fleece, and I think most of us were rather surprised at the value of the end product. He also made the point that we need to develop techniques to improve the processing of alpaca fibre. Currently it is being processed using equipment designed for processing wool. A key point of Brian's address was that the fibre sector of our industry is critically under capitalised.

Raymond Haynes, Alpaca Fibre Development Group

Raymond spoke about the issues that the Fibre Development Group is addressing at present, or feel are in need of addressing. More training should be available for shearers and for fleece handling and preparation on-farm. Codes of practice will be developed for fleece preparation and will be available on-line. Raymond also mentioned that there should be scope for recognising and rewarding innovation within the industry.

Boaz Herszfeld, Creswick Woollen Mills (presentation made by Trevor Beuth)

Boaz wished to make the point that alpaca is not only suitable for the rather fickle world of fashion garments, but its unique features make it very suitable for a range of other functional products. Creswick produces a range of alpaca blankets, throws and other household items. He pointed out the need to quantify the unique properties of alpaca, e.g. how much warmer is it than wool? There is no hard data available to back up claims to these special properties. He pointed out that the craft market is valued at 1 billion dollars per year.



Also mentioned was the importance of all breeders promoting alpaca products to retailers etc., and attending functions with animals and products to make the public more aware of our wonderful fibre.

Trevor Beuth, Kelly & Windsor Aust P/L

Kelly & Windsor bedding products are all manufactured in Australia, and 93% of their business is Australian alpaca. They have developed products that are world firsts, successfully blending cotton and alpaca for their latest range of summer weight quilts. Their process is able to utilise the higher micron white and light fawn fleeces once they have been de-haired. Crimp is an important requirement in the process of layering the fleece to create a product with loft, warmth and softness.

Trevor made the observation that inclusion of a representative from the fibre processing sector in the Alpaca Fibre Development Group would be a positive step. Trevor also would appreciate breeder promotion of his products, along with ideas, photos, articles etc. that he may be able to use to increase the market for his products and our fibre.

Fred Seligmann, Merino Gold

From the apparel perspective, there needs to be a consistent supply of white fibre. Fibre production needs to produce a critical mass suitable for the end use, e.g. the required micron, length etc., and fibre finer than 21μ would be welcome.

Jo Sharp, Jo Sharp Knitting Yarns

Jo gave us an interesting and entertaining run down on how her business got started and progressed, with an emphasis on the marketing strategies she used. The business started with a saleable 'image' and then worked to produce a product to fit the image. Jo has recently started making beautiful yarns that blend other fibres with alpaca. When asked whether she was using coloured fibres she answered, "No", but suggested that a possible market for natural colours would be a company with an 'eco' image that could capitalise on the environmentally friendly lack of dyeing in the processing.







Jo's biggest concern with alpaca is the presence of guard hair in the fibre. This is a problem that she would like to see resolved before she can proceed further with her alpaca knitting yarn range.

Martin Prins and David Westmoreland, CSIRO

Martin and David spoke about the scouring and processing of alpaca fibre, and the problems encountered in these processes. Dirt becomes caught under scales on the fleece and is difficult to dislodge. This results in processing machinery becoming dirty very quickly. They also emphasized the need for equipment designed for alpaca, not sheep wool. However, the volume is just not there at present.

It is impossible to mention here everything discussed at the Seminar. Proceedings are available to purchase priced at \$33.00 (includes GST). Cheques should be made payable to *National Alpaca Fibre Seminar* and sent to PO Box 246, Crookwell 2583. For more information telephone Penny Pittard on 02 4837 3394.

The organising committee would like to thank those who attended the seminar, and we hope that you found the information gained to be helpful to your individual alpaca enterprises. Planning is now underway for the 2007 National Alpaca Fibre Seminar. The 2007 seminar will focus on how growers might best be able to produce fibre that meets various market requirements. In the meantime, we can all contribute to this vital part of our industry by getting our fleeces out of our sheds to increase the volume available to the processing and manufacturing industries that depend on our fleece.

The organisers of the National Alpaca Fibre Seminar would like to thank all the companies who contributed sponsorships and took trade stands: Australian Alpaca Association Inc., Softfoot Alpacas, Optimate Alpafarm, Town and Country Farmer, Inglis, Pear Tree Australia in association with Long Tops, Greystone Paddock Vacuums, Natrakepl, Canberra Motorcycle Centre, Knitalpaca, Think Pig, Cooinda Downs, and Camelidynamics. ■







Is Crimp Important? (WHAT DO YOU THINK?)

WALLET & HE DEATHER DANIES REPUBLICATION

FLEECE ARTICLE by Cameron Holt > International School of Fibres

Resistance to Compression and Bulk

DEFINITION: Resistance to compression is the resistance offered by a known mass of wool when compressed to a known volume (it is like squeezing a handful of wool, some will offer no resistance, some will offer a lot.)

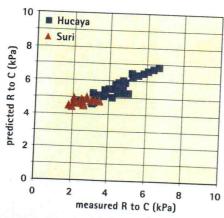
Back in the early 1990s little information was around in Australia regarding the compressibility of alpaca fibre. C. Holt and S. Scott of the Melbourne Institute of Textiles, whilst studying characteristics of suri fibre, decided to investigate the resistance to compression (g.sq.cm) of both suri and huacaya fibre and compare those results to the curvature of those same samples. A small trial [Holt, Scott 1995] was started and the results were as follows.

The suri fibre was shown to have the lowest reading of compression when compared to the crimpier fibred huacaya. Suri (range 18g.sq.cm - 35.5g.sq.cm). Huacaya ranged for compression from 36g.sq.cm - 55g.sq.cm. It was also evident that those lustrous huacaya (not suri) fibre types (with the lower fibre amplitude) tended to have a lower resistance to compression to those of the more crimpy types. These results were then discussed and analyzed by Dr Paul Swan, an expert in this field of measurement.

Dr Swan compared the alpaca curvature/compression results with those he had tested on wool. He used the simple mathematic relationship between diameter, curvature and resistance to compression (compressibility = mean diameter - power 2 x mean curvature - power 1.5). The data was expressed in kilopascals.

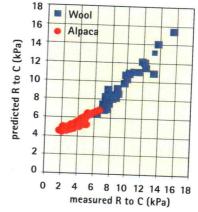
This can be seen in Figure 1, showing predicted resistance to compression (using curvature data input) compared to known measures resistance to compression of both the suri and huacaya samples.

Figure 1: Resistance to Compression Huacaya/Suri



Dr Swan, when he compared results of alpaca resistance to compression and curvature readings [Holt, Scott] to similar data that he had from merino sheep wool, said, "that the alpaca adheres to the same basic relationship between compressibility, diameter and curvature as does wool".

Figure 2: Resistance to Compression Wool/Alpaca



Wool correlation 0.96, Alpaca correlation 0.92 [Holt, Swan 1995]

Although when graphed, the slope of the relationship for alpaca differed slightly to that of merino wool. This may have been because of the different curvature measurement systems being used between the two sets of data; there may have been a difference between the keratin of the alpaca and wool fibre, or the lower scale protrusion on alpaca fibre may have affected the measurement of the resistance to compression. However the physical laws governing the compressibility of alpaca and wool fibres appear to be the same.

It was however noticeable that the alpaca fibre had a lower resistance to compression reading than was evident for merino wool. It should be noted that in the merino results in the above graph the lower readings were from SRS® type merino fleece. These are the fleeces that for a given micron display a slightly broader and deeper crimp frequency.

Some 10 years later, from our small trial, Angus McColl et al (2004) found, "The intrinsic resistance to compression of alpaca is low because of the relatively low levels of crimp". Things had not changed. A research paper from Deakin University [Liu, Wang, Wang, 2004] also found that the resistance to compression for alpaca was lower than for wool. To better understand correlations a 'layman's definition' is shown in Figure 3 below.

Figure 3

CORRELATION	OFFINITION	
· · · · · · · · · · · · · · · · · · ·	DEFINITION	
0.8 - 0.9	QUITE GOOD	
0.7	REASONABLE	
0.5 - 0.6	AVERAGE	
0.3 - 0.4	POOR	
0.1 - 0.2		
0.1	MEANINGLESS	

Curvature

FACT: Curvature is affected by:

- Crimp frequency
- Micron
- Character of the crimp (definition/amplitude/alignment)

Fibre curvature is the measure of the fibre crimp frequency and amplitude.

There is a good correlation between fibre curvature and staple crimp frequency (sheep wool).

The curvature value is expressed in degrees per mm fibre length. As the frequency of the crimp increases the curvature value is increased, and conversely the lower the curvature value the lower the staple crimp frequency. Fibre curvature can be measured at all stages of processing e.g. greasy to fabric. The curvature of the fibre influences how the fibre will process, particularly during top making and spinning.

It is found in wool that a very high curvature value for a given micron is associated with increased noil (due to breakage during processing) in the top which creates lower spinning performance. The fibres, which have a lower curvature for a given micron, tend to be softer to handle and do not have the same noil wastage. It was also found that wool of poor character (crimp definition) tended to show fibre breakage in processing compared to fibres of good character.

Mark Dolling, during processing trials, found that the curvature in the top was less than in the greasy wool. He suggested that some of this was due to the straightening of the fibres during processing and also the removal of the short, high curvature noils during the combing process. He also found wool of lower curvature to be more efficient to process giving a higher yield of top than wool that has a higher curvature.

Alpaca fibre does not seem to have a problem with too much curvature; in fact it does not have enough.

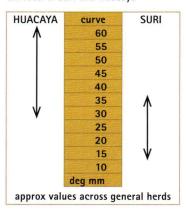
Angus McColl et al (2004) also found, "The average level of fibre curvature in alpaca is quite low, compared to fine wool or cashmere."

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 valu	ies across ge	neral herds

Dr Paul Swan has identified that for traditional merino sheep wool of low crimp frequency (around 8 CPI), curvature readings were around 60 degrees per mm and up around 130 degrees per mm for superfine wool (around 20 CPI). As you can see the alpaca (huacaya) slips in at the 60 degree area and below.

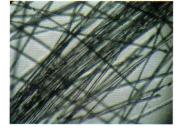
Curvature: Suri and Huacaya



Curvature (OFDA) values in suris have tended to give a range from 15 to 35 (some as low as 10) with the huacaya showing a range from around 25 to 60. It was noted that the coarser the micron, generally the lower the curvature value. Also when the C of V was more variable (higher) the curvature value also tended to be lower.

Note (below) the curvature in the huacaya fibres compared to the straighter suri fibres.





Huacaya (X120)

Suri (X120) (photos-Abiola/Holt)

Character

DEFINITION: Character is the expression of depth and evenness of the crimp or wave throughout the staple and entire fleece. The character indicates how well the fibres are aligned in the staple (definition of character).

Character rating used in the crimp/curvature study

The ratings for character definition were:

- 1. Excellent-superior very evenly defined crimp with deep amplitude
- 2. Good well defined and regular crimp formation
- 3. Good/Average showing good to average crimp definition and regulation
- 4. Average showing some crimp definition but not as regular as No 3
- 5. Poor little crimp definition or regulation visible
- 6. Inferior - no crimp definition visible. Straightish fibres (not suri)



	FLEECE	JUDGES' RATIN	IG FOR CRIN	1P	
10/9	8	7	6/4	3/2	1/10
excellent-superior	good	good/average	average	poor	inferior

Crimp Frequency

DEFINITION: Crimp frequency is the expression of the number of times the fibre crimps (waves) per inch. In good crimped huacaya fibre there is a general relation between crimp frequency and micron, but not absolute.

Crimp frequency rating used in assessment



Figure 4: Character data from the 261 alpaca results (Divided into character groups, 182, 384, 586).

	CORRELATIONS				
CRIMP RATING	1/6	1/2	3/4	5/6	
NUMBER x/261	261	97	88	76	
MICRON / CURVATURE	0.79	0.81	0.41	0.72	
MICRON / CRIMP FREQUENCY	0.44	0.71	0.30	0.19	
CURVATURE / CRIMP FREQUENCY	0.46	0.77	0.08	0.03	
CHARACTER/ CV OF CURVATURE	0.33	0.31	0.11	0.15	

Micron, curvature comparison (261 alpacas)

Figure 5: 261 alpacas micron/ curvature

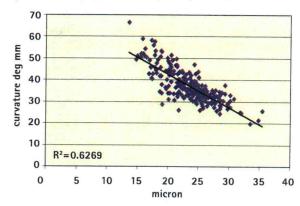


Figure 5 shows the spread and relationship of micron and curvature in the 261 samples. A trend line indicates the approximate average between the micron and curvature. This spread indicated a 0.79 correlation. This suggests that overall relationship for micron and curvature is reasonably good for the entire sampled population and that micron is a strong influence on curvature.

Crimp frequency, micron comparison (261 alpacas)

Figure 6: 261 alpacas frequency/ micron

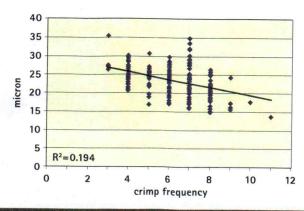


Figure 6 shows the relationship and spread of the micron and crimp frequency. The data indicated a 0.44 correlation.

For the entire range of character groups the relationship is poor. Some 80% of the measurements are inexplicable. This would suggest that over the entire herd crimp size of varying character definition is not a good indication of micron.

Crimp frequency, curvature comparison (261 alpacas)

Figure 7: 261 alpacas frequency/ curvature

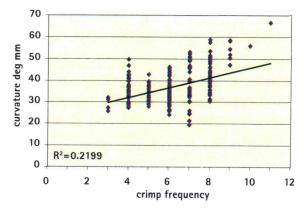


Figure 7 shows the relationship and spread of the curvature and crimp frequency. The data indicated a 0.46 correlation.

A similar result to the graph shown as Figure 6 is indicated with some 78% of the measurements not being able to be explained. This is surprising as one would think the frequency would have a stronger relationship with curvature.

Compare the 261 group to the selected 97 samples of good crimp formation.

Micron, curvature comparison (97 alpacas)

Figure 8: 97 excellent character alpacas micron/ curvature

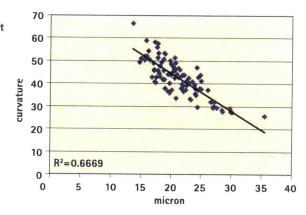


Figure 8 shows the spread and relationship of micron and curvature in the 97 excellent charactered alpaca samples. A trend line indicates the approximate average between the micron and curvature. This spread indicated a 0.81 correlation.

A stronger relationship is shown for micron and curvature in the selected 'good/excellent' group. This tends to reinforce the influence of micron over curvature. It also demonstrates that the better crimped fibres are more consistent, when compared to the overall herd with their varying crimp definitions.

Crimp frequency, micron comparison (97 alpacas)

Figure 9: 97 excellent character alpacas frequency/ micron

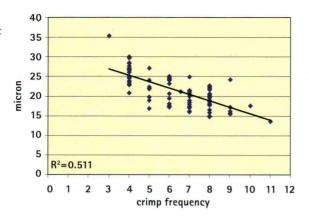


Figure 9 shows the relationship and spread of the micron and crimp frequency in the 97 excellent charactered alpaca samples. The data indicated a 0.70 correlation. A much better relationship in this select group is shown, even though this result indicated a reasonable correlation, there was still 49% of the measurements that could not be explained.

If you were going to use crimp frequency as an indicator of fineness it is only going to be the good, well defined charactered wools that have a chance of being consistently assessed.

The data suggests that in this group there is only a 50/50 chance of a correct assessment without the use of other characteristics or knowledge to help in that assessment.

Professor J. Duerden, a researcher from South Africa, developed a wool appraising system. He matched the Bradford quality count (which was used as an indicator of the processing abilities of the wool), to the Merino wool's crimp frequency. He allocated quality numbers to this relationship.

Using his system, Holt (1995) applied the Bradford counts (Crimp frequency and micron) to a small number of huacaya alpaca samples and compared them to the Duerden scale of Bradford counts.

Figure 10: Alpaca estimated Bradford count (based on micron) correlation 0.36 [Holt 1995]

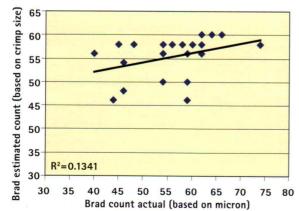


Figure 10 represents this comparison.

The correlation was a poor 0.36, similar to the result (correlation 0.44) above for the 261 study group, micron to crimp frequency.

Crimp frequency, curvature comparison (97 alpacas)

Figure 11: 97 excellent character alpacas frequency/ curvature

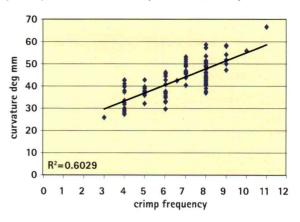


Figure 11 shows the relationship and spread of the curvature and crimp frequency in the 97 excellent charactered alpaca samples. The data indicated a 0.77 correlation, which is a reasonably good relationship when looking at the overall picture and confirms that the better styled crimp is more consistent when comparing the frequency of crimp and curvature. The well charactered group was far superior to the total sample of 261. This would reinforce the view that well charactered fleece is more consistent and therefore a more reliable selection tool than fleece lacking good crimp structure.

Average results for micron, frequency, curvature and CV micron (261 alpacas)

Figure 12

NUMBERS (261) CHARACTER GROUP	AVE MICRON	AVE FREQ	AVE CURVE dg sq mm	AVE CV & SD of CURVE		CV & SD of CHARACT-	
				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

It was noticeable within the individual crimp frequency groups of the 261 population (4-8 crimps per inch), that there was considerable variation for micron as well as for curvature. It is well known within the sheep industry that within different genetic strains of sheep each of the crimp frequencies have a range of microns within that group.

In Figure 13, the groups of crimp frequencies (given as an example) clearly show that the micron influenced the curvature and not the crimp frequency. Some have thought that a given crimp frequency would have some form of consistency in the curvature, but as we know there are different amplitudes (shallow and deep) which contributes to the variation of this result. This may help explain the variation found in curvature for a given crimp frequency. Genetics and age are also involved.

Some interesting selected observations (Figure 13) were:

Figure 13

CRIMP FREQUENCY	MICRON	CURVE	CHARACTER
8	21.4	43.5	2
8	22.7	40.7	2
8	26.4	33.2	3
8	25.3	35.4	3
4	20.5	44.0	3
4	21.5	42.8	3
4	28.5	27.7	2
4	29.7	28.8	2

Averages from the Australian Alpaca Association Inc. database

Data from 5,430 huacayas along with 223 white suris was analyzed for a number of characteristics. These are shown in Figures 14, 15, 16, 17, 18 and 20. Of particular interest was the comparison (Figure 17) of average micron to average curvature. Looking at the averages a trend does appear but when looking at the actual variance (Figure 16) there was still 48% of the measurements unexplained with a reasonable correlation of (0.72).

Figure 14: 5,430 huacayas

COLOUR	NUMBER HUACAYA	AVERAGE MICRON	AVERAGE CURVATURE
BLACK	795	28.77	26.50
BROWN	938	27.28	31.46
GREY	324	26.76	32.60
FAWN	1,755	25.69	35.20
WHITE	1,618	25.02	35.97

Figure 15: White by age

AGE	NUMBER HUACAYA	AVERAGE MICRON	AVERAGE CURVATURE
1	473	22.28	37.46
2	406	24.26	36.83
3	263	25.78	35.90
4	182	27.02	34.80
5	106	28.07	34.50
6	62	28.70	32.30
7	36	29.43	31.78
8	33	27.96	33.80
9	35	28.27	33.38
10/12	21	27.83	33.38
TOTAL	1,618		

Figure 16: Huacaya 1,603 white alpacas - micron/ curvature

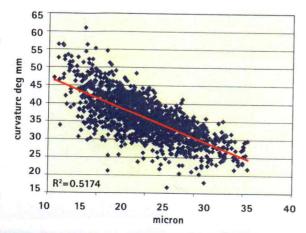


Figure 16 shows that with a good spread of fibre type in the 1,603 white huacayas, the data indicated that there was a 48% unexplained variance (0.72 correlation).

The results were not dissimilar to the research data in Figure 5.

McColl (2004) "average fibre curvature is negatively correlated with ... fibre diameter".

This is also seen in Figure 17, whereas the micron gets larger the curvature value gets smaller.

Figure 17: White by micron

MICRON GROUP	AVERAGE MICRON	AVERAGE CURVATURE	RANGE CURVATURE	SD CURVATURE
16	16.2	49.4	56.5/33.9	28.5
17	17.1	47.7	53.6/39.0	28.9
18	18.3	43.8	52.9/30.8	26.1
19	19.1	42.9	61.0/29.8	25.3
20	20.1	40.8	55.3/29.9	24.4
21	21.1	39.7	54.6/21.3	24.5
22	22.1	38.8	49.1/25.8	23.9
23	23.1	38.2	47.2/28.6	23.7
24	24.1	37.3	48.4/23.7	22.8
25	25.1	35.8	44.4/24.7	23.0
26	26.1	34.5	43.8/21.7	22.2
27	27.0	32.9	39.4/16.6	21.9
28	28.1	32.6	39.6/20.6	22.1
29	29.0	31.8	41.2/22.9	21.5
30	30.0	30.3	36.4/14.8	20.1
31	31.0	29.5	35.9/18.0	20.0
32	32.0	28.9	34.6/23.1	21.2
33	33.0	28.2	35.2/24.0	20.5
34	34.1	26.1	31.6/21.6	19.9
35	35.1	26.6	29.6/21.8	19.8
TOTAL	24.9	36.1	61.0/14.8	23.0

Figure 18: Suri Curvature - White by micron (223 alpacas)

MICRON	CURVATURE	SD CURVE
16/18	20.28	19.2
19/20	18.34	19.3
21/23	16.01	16.28
24/25	15.05	16.2
27/30	14.41	16.5
31/35	11.66	14.2

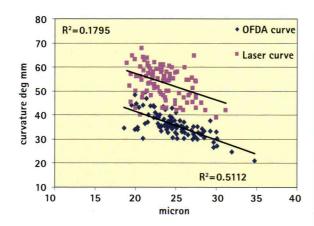
With a widespread grouping of animals for fibre style in the 223 white suris, the data indicated a 67% unexplained variance (0.57 correlation).

As the suri breeding becomes more advanced this correlation should improve as the range of fleece types becomes more uniform.

Figure 19: Comparing OFDA curves with laser curves (Same 100 Huacaya fleeces/samples tested on each machine)

MICRON	AVER MICI		AVERAGE OFDA CURVE	AVERAGE LASER CURVE	DIFF LASER/ OFDA CURVE	DA NUM	
	OFDA	LASER			CURVE	OFDA	LASER
19 - 20	19.80	19.63	40.12	54.76	14.64	9	9
21 - 22	21.68	21.49	41.27	56.09	14.82	15	29
23 - 24	23.67	23.50	37.29	54.44	17.15	29	33
25 - 26	25.30	25.50	34.48	49.51	15.03	22	13
27 - 28	27.59	27.23	32.50	50.69	18.19	15	13
29 - 30	29.57	28.45	30.95	43.50	12.55	8	2
31 - 34	33.30	31.15	22.90	41.95	19.05	2	1
AVE	24.66	23.51	36.01	53.41	17.40	TO1	

Figure 20: OFDA, laser curve - micron



Note: Since the tests for this comparison were taken, the AWTA has altered their solution to a 'water base'. This has altered how their current laser views the curvature. The data in this study was from a Laserscan using a 92% Isopropanol – 8% water formula as its liquid medium.

Other laboratories using a Laserscan are most likely to still be using the Isopropanol/water formula, as it is believed that the AWTA is the only laboratory at this stage to have gone to this water based solution.

The comparisons between the OFDA and laser for curvature indicated an average difference of 17.4 deg mm (100 huacayas measured in this trial by both machines). The correlation between curvature measured by OFDA or laser for any one sample is poor, with OFDA measuring significantly lower curvature than laser. The spread of the OFDA was much more consistent than what was found in the laser.

However, the comparison of the relationship of micron and curvature for the OFDA still indicated a 49% unexplained variance (0.71 correlation). The laser had an 82% unexplained variance (0.42 correlation).

When directly comparing the OFDA and laser curvature comparisons for each animal there was 78% unexplained variance (0.46 correlation).

At the time of writing this article it is important to say that each of the testing machines have their own testing standards (even though their scales of measurement are different). No international standard has been agreed to, where you would expect to get the same result from both machines (as is found when testing for micron).

The significance of difference in curvature measurements between machines suggests that meaningful comparisons of fibre curvature between different fleeces can only be made if measured by the same techniques.

So if you are a breeder pick a machine that gives the group of results you want, and stick to it.

Figure 21: Alpaca (huacaya)

NUMBER OF CRIMPS PER INCH	FIBRE CURVATURE (deg mm)	MICRON (approx)		
11/12	60/55	13/14		
10	54/51	15/16		
9	50/47	17/18		
8	46/44	19/20		
7	43/41	20/21		
6	40/38	22/23		
5	37/36	24		
4	35/33	25/26		
3	32/29	27/28		
2	28/25 29/31			

Figure 21 shows estimated relationships only for crimp frequency, curvature and micron (based on good/average crimp definition and better: 1-3 appraisal). These are based on general data in studies conducted by the writer in 1994, 2004, 2005 as well as data from AAA Inc. and Grupa Inca 2004. I would expect these estimates to become more accurate in time, as the alpaca herds in Australasia, Northern America and Britain become more consistent.

A bias was made in Figure 21 towards the better-crimped fibre.

So, what do you think? Is crimp important?

The final comment and choice is yours. >

For the mathematically inclined

Findings from the study can be found on the AAA Inc. web site - www.alpaca.asn.au in the document entitled, A survey of the relationships of crimp frequency, micron, character and fibre curvature [Cameron Holt, 2006].

About the Author

Cameron Holt has had some 40 years in the fibre industry as a wool broker, judge, educator and also in his semi retirement continues with alpaca research. He is currently judging for the Australian Alpaca Association Inc. and in his role as Senior Fleece Judge and trainer for AOBA, has been involved in the training of their judges as well as judging. Cameron, a leading alpaca fibre expert, continues his educational clinics and lectures throughout the world.

Acknowledgements for the original study

Special thanks to Professor Brian Sawford (Monash University), Dr Jim Watts, Dr Paul Swan (Paul Swan & Ass.), Dr Daniel Brown (UNE) and Dr David Crowe (AWTA) for advice on the research, "A Survey of the Relationships of Crimp Frequency, Micron, Character & Fibre Curvature"

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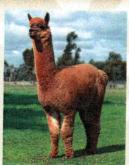
Purrumbete Highlander, Purrumbete Eldorado and Pacific Beethoven genetics



Twilight Park Poetic Licence Windsong Valley Nelson Windsong Valley Royal Inca son



Timbertop Mystic Force by Timbertop The Scud out of an NWA Ltd Ruffo girl.



ILR NWA Luminosa Peruvian Hemingway son



Hinterland Cruz Sire: Glenwood Top Gun



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Poisonous Plant Profile

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

Welcome to the first of regular profiles of poisonous plants by the AHH&W Sub-committee. In this *Alpacas Australia* issue we profile a perhaps not immediately known but highly poisonous plant that has been confirmed responsible for the death of an alpaca.

Euonymus - "Spindle Tree"

The genus *Euonymus* belonging to the *Celastraceae* family consists of over 175 species of deciduous, semi-deciduous and evergreen shrubs and trees with a wide distribution throughout Europe, Asia, Australia and North America. Commonly occurring genus' in Australia are *Euonymus europaeus* (European Spindle Tree) and *Euonymus japonicus* (Japanese Spindle Tree).

Traditionally, and amongst other medicinal functions, a concoction made from the fruit and leaves of the Spindle Tree was used as a purgative and also as a topical treatment for lice and scabies in humans and mange in livestock. The wood of the Spindle Tree is exceptionally strong and was used to make spindles for looms, hence the tree's common name. As poisonous plants, the *Celastraceae* family has a history that dates back to Theophrastus, several centuries before Christ.

Today the Spindle Tree is used as a decorative garden and hedging plant in temperate regions of Australia, thanks to often brightly coloured autumn foliage and colourful fruit.

A hardy plant that is frequently found in older established gardens, the Spindle Tree grows in full sun or part shade and in most soil types. Whilst not commonly naturalised, some species of Spindle Tree can self seed.

Plant Description

European Spindle Tree: With both evergreen and deciduous cultivars, this shrub or small tree has smooth grey bark and grows to 6m high with a spread of up to 2m. Autumn leaves on deciduous and semi-deciduous varieties can turn to red, scarlet and bronze. Leaves are opposite, lance-shaped and smooth with toothed margins. Fruit is a deep pink to red showy berry that is persistent through autumn and into spring. With four distinct lobes that are 10-15mm in diameter, the berry opens to expose an orange fleshy layer surrounding white seeds. Spring flowers are yellowish-green, 8-10mm in diameter in long stalked clusters of three to eight blooms.

Japanese Spindle Tree: An evergreen shrub that grows to 3 metres high. With variegated cultivars (marked with spots or patches of yellow), the leaves of Japanese Spindle Tree are leathery with slightly toothed margins and are generally broader than those of European Spindle Tree. Inconspicuous summer flowers are pale green, 5mm in diameter and in groups of five to twelve blooms. The autumn to spring berry is deep red, almost spherical and not lobed like its European cousin.

Poison Information: Fruit, bark, leaves and flowers are highly toxic to humans and most livestock. Children in particular are attracted to the berries.

Poisoning Symptoms: Ingestion produces a violent purgative action. Delayed onset of symptoms 10-12 hours after ingestion is not uncommon and can include, diarrhoea, vomiting, fever, prostration, weakness, convulsions, coma and death.

Our heartfelt sympathies go to the alpaca breeder for their loss and our thanks to them for bringing this plant to the attention of AAA Inc. AHH&W Sub-committee.



Close up of Spindle Tree



Spindle Trees evergreen and variegated in background

References:

- > Australian National Botanic
- > Pretty But Poisonous R.C.H. Shepherd. 2004. RG & FJ Richardson
- Flora a Gardener's Bible.
 ABC Books First Edition 2003.
 Global Book Publishing P/L
- > Michigan State University Extension Oakland County
- > The Order of Bards www.druidry.org

Purrumbete Suri Cross

SURI ARTICLE by Alan Cousill & Jude Anderson > Pucara International, Australia & US

Our purchase of the Purrumbete Suri Cross Program was one of those rare meetings of opportunity and luck. We'll never look back and regret the day Roger Haldane called offering us ownership of his famous Purrumbete herd. Roger is a good friend and mentor and we were definitely enchanted with the grace of suri alpacas. And the day we saw forty or so weanling suris from rose grey to black and white prancing the green pastures of Alpacas of America was the day that again the heart ruled the bank account! It was the day Alan coined the slogan 'Curtains of Silk' and it was the day a long process of importation began that gave us the means to take on this new offer from Roger and Sue Haldane and the late Clyde Haldane.

A few of our 2005 Purrumbete sufi grop of cria

When Dr Raoul Ponzoni suggested the dominant suri gene theory we thought we'd leave all the academic theories to the experts and if it worked, it worked. The dominant suri gene theory was playing out on other people's farms but it was a trip to Purrumbete that set our minds spinning. Every trip to the Purrumbete farm was an adventure which we always looked forward to. We have never met to this day a family with the common sense and intelligence that made the Haldanes so good at whatever they put their minds to.

But it was a trip there with our good mate Mike Safley, from Northwest Alpacas, Oregon, USA, that had us hooked. Here was good old Roger showing us results of breeding huacaya females to suri males. Every cria was a suri type! Whilst some were handy, and some a little shabby, others looked like show quality. And Jude and I were thinking the same thought again ... "That Roger Haldane, he's done it again ... always in front of the pack, achieving astounding results from a wonderful sense of livestock understanding and experience". We paid a whole lot more attention to Roger's crossing program because we saw value from turning less than developed huacaya into economically valuable suris.

In March 1997 we imported 60 suris from the USA with our American partner, Frank Age. Pucara Alpaca Stud was able to build on those imported genetics and did very well in the show ring for a number of years. The foundation was built around two Accoyo suri males, Amador and Cadete. And also the likes of Top Hat, Donaire, Ferrari and several others. Cadete for instance produced Pucara Allegro whose cria have won 39 championships and 17 Supremes! We had a beautiful group of females in Halona Happy Fortune Accoyo, Accoyo Nell Gwen, Liza, Pavesa and Geneve. This suri venture was a huge sacrifice for us. We absolutely loved huacaya and still do, so it hurt to sell all our Peruvian import huacaya females and daughters which we had selected in Peru to buy the suris over there. Many of those huacaya females found themselves into the Snowmass and Northwest herds in the US. We have never seen the equivalent of any huacaya herd as we have seen at Snowmass Alpacas. In the end, our suri journey was a result of that fateful day at Alpacas Of America peering into a rainbow of colored suris that captured our hearts.

Breeding suris was a big financial decision for us. At that time there were only 600 suris in Australia.

Some like the *Peruvian Senator* line were beautiful but we knew there was a rarity in numbers and quality. It was not unlike our decision to jump at buying the Purrumbete Suri Cross Program. We were able to buy from Clyde, Roger and Sue 88 females in total ... 53 huacaya, 27 first generation suris, three second generation suris and five pures (so called, and this is not a slur at Roger, it's a fact that nearly every suri that comes out of South America, especially the coloureds, has a chance of being a cross. Even the famous ate Don Julio Barreda had been cross breeding. Since he began to understand the Suri Gene Supreme theory he began cross breeding in the late 1990s to encourage the population of suris which he so eloquently and passionately spoke for. In 2001 Mike Safley and Al were shown by Don Julio the results of his cross program. They were astounding. The quality of the fleece was incredible. They had lustre like we had never seen.) We also acquired two 'pure' suri males from the Haldanes. Both *Doremus* and *White Opal* proved to be homozygous. There was not one huacaya baby born to any of the Purrumbete breedings from these two boys.

So here we had an opportunity to acquire nearly 90 female alpacas at an extremely encouraging price. We still needed help however and we brought in our good friends, Chic and the late Jo Wilson to buy half of the Purrumbete herd. We ammediately leased 110 acres close to our Pt Addis farm in Victoria. The stage was set. We paddock mated all of the purchased females to our US boys or their sons. We used Accoyo Cadete, Bentley, TopHat and Allegro extensively. Our purpose was to try and breed many quality coloured suris. Our trouble was that we had only the one coloured suri male, a fawn boy, Bentley. We hoped that by using our quality white boys and Bentley over many dark coloured huacaya females that we'd produce at least some quality colour. Well, we got lots of females, all suri, but bugger all colour!

To understand the science behind the scenes, we recommend reading a few articles. A good start would be the findings of Raoul Ponzoni, Mike Safley's article, as well as the articles by Pierre Baychelier and Cameron Holt published in *Alpacas Australia Magazine*. (See Suggested Reading)

So what's the main difference between suri and huacaya fibre? We need to look at the structure of the alpaca fibre. Cameron Holt has shown that the internal cortical cells inside each fibre are organized differently between the two types – in huacaya, the orthocortical cells are clearly separated from the paracortical cells and this bi-lateral differentiation creates crimp. But in suri fibre there is no bi-lateral differentiation thus giving the suri a fairly straight fibre. The external structure is also important. Suris have arger, and therefore less scales on the outside of the fibre with smaller serrations on the overlapping edges imparting a more slippery, soft handle and the fabulous lustre that is the hallmark of the suri.

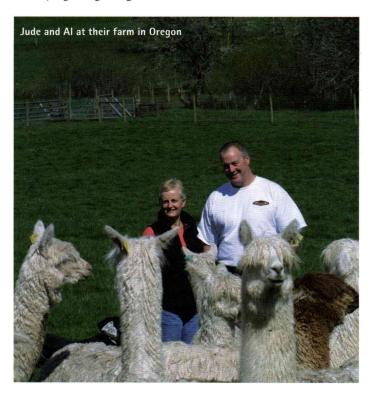
Ponzoni theorized that the suri gene is dominant over nuacaya, and the Purrumbete program started by Roger and continued by us has proven it to be the case. Why is it that two suris can produce a huacaya or a suri, and yet two nuacayas will only produce huacayas? Simply, the suri phenotype can come two ways, firstly as a homozygous [SS] suri that inherits a suri allele from both parents, and secondly as a heterozygous [Ss] suri that has a dominant suri allele from one parent and a huacaya allele from the other, whereas the huacaya phenotype can only come one way [ss]. By mating two heterozygous suris the result can be a huacaya (receiving the "little s" gene from each parent), which points to the fact that the suri gene is dominant and the huacaya recessive.

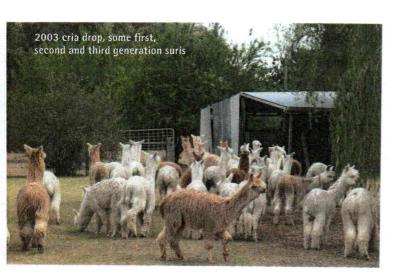
This is a single gene theory (two alleles with S dominant over s) and even Ponzoni admits that it could also be achieved by a group of very closely linked genes that are inherited together. Maybe this is the case. Hopefully research in the future will contribute to a greater understanding of the mode of inheritance.

This is why we hear talk about this or that suri stud male being either heterozygous or homozygous, meaning "Does he throw all suri cria?", or "Is he a pure suri?" Of course, we want all our suri males to be homozygous. We have been fortunate to have had the advantage of homozygous suri males to breed to all the Purrumbete females — first *Doremus* and *White Opal*, then the males we imported from USA which originated in Peru. And it has been gratifying to have had the numbers to be able to prove the boys' homozygosity!

(A small aside here – we can talk about homozygosity/ heterozygosity with regard to every single gene combination for every single trait in an animal, not just about suri purity!)

And it's a numbers game due to the fact of 50/50 male/female births and the generational interval, so the homozygosity of our males has helped us tremendously. We now have a handful of third and fourth generation suri females after all these years (and males too, but we're still castrating them). Our fourth generation or Back Cross 3 as they are more correctly termed are 15/16 suri having one huacaya great great grandmother.





As Pierre Baychelier says in his article, the majority of other breed societies accept 15/16 as pure. It's taken 10 years to get there, but from now on we'll be producing more each year as the second and third generation females get into the breeding program. This is what all our excitement has been about for all these years, and it's been worth it!

Of course, the quality is another aspect altogether - we all know from breeding experience that our mating decisions don't always result in the quality cria we envisage. Suris are no different to huacayas in that regard. There are many, many gene combinations that influence the fleece and conformation qualities we all strive for. We have noticed however that as we achieve higher levels of suri trait homozygosity in our females, the fleece qualities have markedly improved from those first F1 heterozygous suris, in terms of lustre, locking, density and overall type. The tell-tale signs of an F1 suri are generally the fluffy, voluminous types that have no real structure or density to the lock, as well as low or no lustre. There are exceptions to this of course (we've all seen F1s win ribbons at shows) but after seeing hundreds of F1 suri cria both in Australia and the US, we think it's generally the case that they are lower in quality. We're not saying that two pure suris will always produce stunning offspring; it all depends on the quality and the prepotency of the parents you have to work with. This applies to all alpacas.

The results from the Purrumbete program were exciting in that we did not ever have one huacaya born. Every time a new cria was born we were praying there would be some colour, but alas we got very little of it from our breedings. Again it was a decision of economy to breed for colour. We had great sales from our herd of pure whites that our show team derived from, although those sales were at a higher price point. The suri cross program was invaluable in the sense that we could produce suri types to sell at a very competitive price point. But we had a big hole on colour and for us that was the most disappointing thing about our results. We love suri colour and there was demand for it at the right price point. The other result from the program which pleased us to no end was the quality it was able to produce. It was not long before the good suri crosses looked phenotypically every bit as good as a lot of so called pure suris.

This resulted last year in a National White Junior Female Reserve Championship. It is the most competitive suri class showing in white but we managed a second and third. We were ecstatic but this emphasizes one of the legacies of a suri cross program. It takes so long to get results. To get a second cross female can take up to six or seven years considering that the original huacaya mum has to have a female cria first, then that female first cross has to mature and by the age of about two and half years old have a cria and there is a fifty per cent chance it could be a boy! On top of that if you are chasing quality as well. It's a long haul!

The other issue is that none of the male progeny we believe should be used in a breeding program until you can reach a generation of such crossing which is pure or will produce homozygosity. We have been extremely lucky having used all homozygous suri males for breeding to our Purrumbete girls. But there is a chance the progeny of all of these pure suri boys breeding to huacaya and what ever cross are heterozygous. If you use the male offspring of this crossing you are risking producing huacaya cria which is a serious setback in a program that takes so long to establish anyway. You lose a generation plus produce an offspring that does not have a lot of economic value. And this shows another issue with cross breeding. Many alpaca breeders do not understand the science of suri cross breeding. They do not understand that although it is a huacaya it is a homozygous huacaya and will always breed true. At first when we began the program we copped negativity in many areas mainly because breeders were pushing their so called 'pures' from Peru and secondly because people did not understand breeding for homozygosity. In the end everything is going to be OK if you use homozygous suri stud males.



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We think people were afraid to risk the reputation of their pure' suri males by breeding to one of our crosses because heir males had never been proven for homozygosity. In he US it is common for suri stud male owners to require he pedigree certificate of a suri female to determine if she as any huacaya in her background. If so they will not breed her. Even in Australia we found the same sentiment. Breeders claimed they wanted to preserve the purity of the uri whilst we think the fact is that they did not want to isk the reputation of their male if he produced a huacaya ria. Our point to them was, "Don't you want to prove your nale is homozygous?" We found it incredulous that those reeders rallied on purity when most of the suri imports rom Peru, especially the coloureds, are bound to have uacaya blood in their background. This is a sign of an mmature livestock understanding but especially the product of big marketing budgets dictating worth! Suri crossing is nuch better accepted now in Australia because generally he science is better understood. The case is not the same in he US where suri breeders shudder if you mention crossing. This happens to the extent that those who do understand will not participate because they know very few will buy uri cross offspring plus they protect their suri market by ot populating it from huacaya breedings! Who can blame hem? They have an unbelievable market with far more uris than Australia and the quality is there in every colour.

f someone asked us would we do it again, hands down we would (but not in the US!). We have had good sales as a esult and seeing as we have been full time alpaca breeders or some ten years that is an important fact! You do have to make a living. That is why we farm alpacas.

What lessons have we learnt? The answer would be they are the same lessons from any alpaca breeding program. You need to understand the science of animal breeding. You need to qualify your results by grading every progeny gainst an ideal. You need to learn not to be barn blind and book about to see if there are other genetics out there that an help boost your genetic gain. (As a direct result of that minking we are now mating about 30% of our US herd of 00 or so suris to outside suri stud males. We want hybrid igour, we want some diversity, and we are introducing some iche marketing by breeding to very good coloured males to mprove returns and to elite suri males with lustre, fineness and density.)

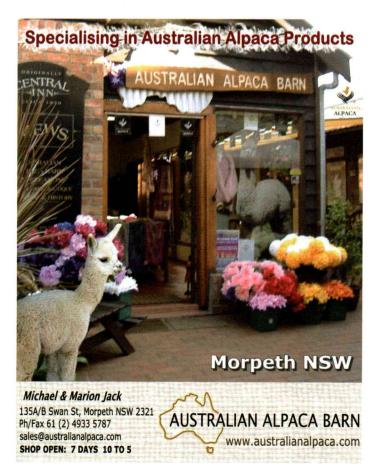
You need to look at the market and supply what others cannot. You need to brand your farm and keep focused on your ideals. You need to build as much quality as possible into that ideal.

Our suri cross program is now located at Tambo Downs Alpaca Stud in Victoria. We chose Jeff and Kay McNeill to be partners in all our animals because they are good friends and share our love for the suri and are as hard working and as honest people you will ever find. Now that we spend so much time in the US running our Oregon farm it was necessary to have someone of integrity with the same passion to continue the work. It's our next mission to find a coloured male or two and some prepotent white suri boys to inject new blood into the herd. Right now there are none of the original huacaya left. The herd consists of a lot of first and second generation females, a growing number of thirds, with a small number of fourth generation girls. But when we look out into that herd and see fabulous suris everywhere whose lineage mostly started as huacaya, we are tickled pink.

After all as someone has said before, "If you stand in the middle of the road all you'll get is run over!"

Suggested Reading

- > Phenotypes Resulting from Huacaya x Huacaya, Suri x Huacaya And Suri x Suri Crossings Raoul Ponzoni, AAA Web site, Alpaca Information, Further Readings, www.alpaca.asn.au/info/readings/menu.shtml
- > The Spin on Suris and how they differ from Huacayas Cameron Holt, Alpacas Australia No.47 Winter 2005, p36-46
- > What Is A Pure Suri? Dr Pierre Baychelier, Alpacas Australia No.39 Summer 2002, p30-33
- > The Suri Gene Supreme A Cross Breeding Conundrum Mike Safley, www.alpacas.com



Dogs and Alpacas don't Mix

ANIMAL HEALTH AND WELFARE ARTICLE by John Butler > Anembo Park Alpacas, VIC AAA Inc. Animal Health, Husbandry & Welfare Sub-committee WARNING THIS ARTICLE CONTAINS GRAPHIC IMAGES ON PAGE 54

In recent times the frequency of dog attacks on alpacas seems to be increasing. Some of these attacks have been widely publicised but many are suffered in silence. A few local breeders may lend support but the wider alpaca community often hears nothing. Whether on the fringes of a large metropolitan city or in the country, dogs are getting out of their back yards and causing havoc when gathering in a pack.

This is the recent experience of one breeder in country Victoria.

"They started in March one night when we heard dogs barking and the next morning there was a cria missing. We could not believe this had happened to us, so we brought the alpacas right around the house, but this was difficult as we have three different groups. The dogs barked a couple of nights a week and then a neighbour rang saying there was an alpaca caught on the boundary fence (a wether; we had left the wethers to roam) and that he was dead. The dogs had chased him onto the fence and eaten his face. Another neighbour had heard a terrible noise of barking and screaming alpacas but it was not heard at our house as we are on the very top of a hill and some of our paddocks are down a steep bank and flat at the bottom. So up came the wethers to the house with the other animals.

Then the dogs came about five nights a week and we were out there with torches and sticks chasing them. I rang the Ranger who said that either we could shoot them or poison them. Of course we can't shoot and don't own a gun and wouldn't hear of poisoning the dogs and all the other wild things which might eat the poison. So I was ringing the Ranger several times a week to no avail, then the police, also to no avail, and every night we would have our clothes ready to put on in a hurry with the sticks and torches on the kitchen bench in readiness and in that time we lost two more crias. All three losses were girls, of course.

Then a friend suggested a dog box. We found one to borrow and hung bones in it and caught three dogs in about five days. I called the Ranger who came and checked them out. One had a tag and he took it back to the owners and fined them, but the other two had collars with no identification. My husband saw another dog outside the cage of a trapped dog; it was checking out the dog in the cage, but unfortunately we haven't caught that one.

We haven't had any more attacks since, but we are still nervous and have not put any alpacas down the bank or in the bottom paddock yet. The dogs were farm dogs, kelpie cross types and cute looking. We steeled our hearts, as we knew what they were doing to our stock.

I was a nervous wreck and I still wake at the slightest noise and jump up and check that there are no dogs around. What else can one do? It was hard to see, as the attacks were all after about 10:30pm so all we could see were eyes and hear the dogs barking.

We had six pregnant girls. Two of them lost their cria at 11.5 months. The four that were born were all weak and we had to give them a bottle for a couple of days before they could stand up and suck naturally from their mothers. The other day we had a girl who miscarried so who knows if that was from being chased so much in early pregnancy."

Stories like this one are preventable, but only if the dog owners do the right thing which is easier said than done in many circumstances.

While many of us will think that certain breeds of dog are the problem, apparently that is not the case. To shed a little light on things I called Rod Maruff from Homestead Boarding and Training Kennels where Rod has been training dogs for over 30 years and has trained many dogs for obedience, TV, guard dogs, trials, tracking and carting and also Police dogs.

Rod explained that dogs that attack stock are not limited to one or two breeds. The problem is more dog specific than breed specific. In the past Rod has trained one of his Rottweilers to round up his sheep and cattle. The training and the environment the dog is raised in and lives in each day is one of the most important factors. For people owning a large dog, a one acre back yard is not large enough to keep the dog mentally stimulated and exercised.

In today's society, where dogs are required to be yarded or chained up, they often have poor social skills. Years ago when dogs wandered and came home for a feed they experienced kids at the local park, other dogs, traffic etc. It is common these days for owners of dogs to be working long hours, not able to walk the dog and at times not spending any time with the dog. The result can be that when a dog gets out of its yard, it is often not able to cope with the new and different environment it finds itself in.

What to do during an attack

asked Rod what to do when faced with a dog attack. His advice was to be extremely cautious about rushing in the ohelp your alpacas as a pack of dogs in a frenzied attack can very easily turn on humans. When asked about a dog being attracted to a wounded and bleeding alpaca, Rod hought it not likely to be a problem but it is not possible to say for certain.

encing

Many farms have mesh boundary and internal fences, which most people believe will provide some form of protection from dogs. Well this is not the case, as Rod explained that a dog the size of a German Shepherd can asily jump a 4ft fence and most can jump 5ft fences. The size of spaces in hinge joint or ring lock fences will not stop dog pushing through if it wants. A dog proof fence will need to have mesh as small as 4 inches. Electric fences on putriggers are of limited use as the dogs can jump the fence. The height of deer fences would be OK though.

Herd Protectors

For livestock owners on larger properties Rod thought the Maremma dog was possibly a good option to protect evestock against dog attacks but not every Maremma will be as good as the next and correct training and handling as crucial.

asked Rod if the **Maremma** was the only herd-protecting og and he replied not at all.

The **Turkish Kangal** standing at 36" at the shoulder and reighing up to 140lbs was an option and the **Komondor** from Hungary at 30" at the shoulder and 80 lbs was also a good herd protector.

irearms

recent call to the **RSPCA** led to a very interesting chat with Ken Waixel, a senior inspector with the RSPCA. Ken was able to advise that landowners are within their rights to moot any animal attacking their livestock. In Victoria the egislation is **The Domestic Feral and Nuisance Animals** act. Other states have similar legislation in place.

To protect our alpacas it is not as simple as getting a rearms licence, buying a gun, practicing a little bit, and then shooting the offending dogs. Prior to commencing with the RSPCA, Ken spent many years as a Ranger. Over his time he found that different dogs need different calibre ullets to get a clean kill. Experienced shooters can kill a tog from 80-100 metres while novices can struggle from 0-30 metres.

As Ken explained, under the legislation the person shooting at the dog must have a reasonable expectation that with their experience and skill level they have a good chance of killing the dog. If they are a novice with firearms and they wound the dog they could face prosecution as there was not the reasonable expectation of quickly and humanely killing the dog. On occasion even an experienced shooter may need to use an extra round to kill the dog if the first was not a fatal shot.

If the dog is wounded and leaves the property the shooter must by law track the dog to kill it as quickly as possible. If they did not track and kill the dog they may face prosecution. The legislation allows you to track the dog onto other farm paddocks in pursuit of the wounded dog.

Unfortunately with firearms, the increasing dog problem is on the fringes of urban areas and there are restrictions for firearms in these areas.

Dog Trap

Ken suggested trapping the dog in a dog box for those without firearms skills. Should you be successful in trapping a dog you cannot shoot it. In fact, it is illegal to shoot a dog once it is caught; it must be handed over to the Ranger to deal with the dog.

Hosing

I suggested to Ken the possibility of hosing the dogs to discourage them, but this would seem like sport to the dogs and possibly they would return for more play.

Modus Operandi of attacking dogs

The dog's behaviour in a pack builds over a few days or weeks. It can start with them just chasing the alpacas for fun, then next visit they may be nipping at the alpacas' legs until finally the dogs start attacking in frenzy. They may then go onto a new property and begin attacking the animals, never having visited this property before.

The dogs can return home without blood on them as they are very sensitive to scents and often roll in grass and dirt to remove the scent of their prey, cleaning themselves in the process.

It is not uncommon for dogs to stray up to a 9-10 km radius from home while in a pack.

Early signs of an impending problem and what to do

Ken mentioned that there may be signs prior to attacks occurring. Look out for alpaca behaviour such as crowding in one corner of a paddock when you return home. Behavioural changes at certain times of day such as nightfall should sound warning bells.

For dogs that are seen visiting your property but without attacking, do all you can to obtain notes and photos and learn where the dogs live, then quietly and calmly talk to the dogs' owners.

If the dogs are not attacking the alpacas, the owners of the dogs can still be fined for allowing their dogs to stray. Keep a diary of dates the dogs are entering your property, noting any distinctive features of the dogs – tags, markings etc. Where possible photograph the dogs at your property and photograph the dog entering its home if you are able to track them. But as Ken explained you will need to follow the dog/s home, never losing visual contact.

The different legislation across our nation makes hard and fast advice difficult. Where the Ranger in southern Victoria might shoot a dog caught in a bog box, one northern NSW breeder advises that the Ranger in those parts would not shoot trapped dogs but would call the police who would shoot the dog.

Another breeder in Victoria attempted to contact the dog owner while an attack was taking place. With no luck there they called the police and also took many photos with a digital camera while the police were en route. The police shot and wounded the dog, which then fled the scene. The dog owner took the dog to a vet for treatment for a gunshot wound to the lower jaw. The vet, after treating the dog, released the dog to the owner. The police were excellent witnesses in the ensuing legal action by the local Council against the dog owner and also the alpaca breeder against the dog owner. The advice from this breeder was that suing for damages is much easier if the Council has previously thrown the book at the dog owner and won. The breeder called a local lawyer on the Sunday of the attack for advice regarding doing a caesarean and whether this was tampering with evidence. The advice was to proceed with the caesarean.

One imaginative alpaca breeder shot the dog attacking their alpacas, then washed the blood away, blow dried the dog hair and photographed the dog. Lost dog posters



were placed around the neighbourhood, and the council proceeded to take action when the owners came to claim their lost dog.

Tragically, there is always the potential for dog attacks without warning but many are the result of a build up. Listen to the local grapevine for talk on dog attacks in your area.

As state legislation often differs, please contact your local police, Department of Primary Industries and Council to ascertain the legal facts specific to your area before taking any action. Be proactive and arm yourself with the laws that will assist you.

If you have identified wandering dogs and attempted to talk to the owner quietly and calmly but all to know avail, then take photos, keep a diary of sightings, talk to the neighbours and the Council Ranger. Most Councils are more inclined to listen to a group of ratepayers voicing concern than an individual. In many cases, when the owner of the dog/s is advised of the value of your alpaca and that they would be liable for compensation, the dog owners fall into line.

Have your emergency phone numbers handy – vet, police, Ranger's mobile and prepare a plan for how you would handle a dog attack just as you would prepare a fire plan for summer. ■

Further reading

- > Guard Animals for Livestock Protection by David Jenkins http://www.agric.nsw.gov.au/reader/pe-vp (Guard Animals for Livestock Protection)
- > Queensland Government Fact Sheet Wild Dog Control www.nrm.qld.gov.au/factsheets/
- > WA Department of Agriculture Fact Sheet Wild Dog Control www.agric.wa.gov.au

For more information on the breeds mentioned contact your state Canine Association.



ost dog attack – Points to consider

indly contributed by Sandra and Peter Hutchinson > Wangurra Alpacas, VIC

Attacker	> Contain or follow attacker/s if possible but consider own safety a priority.				
	> Be aware the attacker/s may return if uncaught.				
	> Feral or domesticated dogs are both candidates to attack.				
	> Identified dog owners could be approached and resolved in a non-confrontational manner (but will depend on the circumstances). Otherwise the police / local Council / legal representation may be the course of action.				
Vet	> Attend to the immediate care of injured alpaca/s.				
	> Preparation of a report for local Council for possible prosecution.				
	> A report may be necessary/required for legal purposes/insurance company.				
Alpaca Herd	> Check other alpacas for injuries i.e. direct result of attack or indirectly due to fleeing/frantic activity/shock.				
	> Support to orphaned crias.				
Local Council	> Inform of incident ASAP (even out of hours). Have Ranger's mobile number handy.				
	> May be able to collect DNA sample for testing to identify attacker/s soon after incident.				
	> Possibly pursue owners and press charges including destruction of attacker if identified.				
Alpaca Breeder / AAA Region Rep	> Contact for support/advice via phone or attendance?				
Photographs	> Of attacker if possible. Photos of the injured alpaca/s may be of value for local Council or legal purposes.				
Deceased Alpaca/s	> Fleece sample may be helpful for legal purposes to establish value or self interest.				
	> Possible autopsy of alpaca especially if pregnant to assist with valuation of alpaca (sex of unborn cria).				
	> Removal of ear tag if desired.				
	> Remove fleece/hide.				
Disposal of Deceased Alpaca/s	> Bury (may require a backhoe/excavation) at least 2 metres deep (necessary for drug and predator/ fox disruption).				
	> Knackery.				
	> Cremate.				
	> Your veterinary surgeon may also have facilities to assist.				
ΓLC	> A traumatic event for alpacas and humans – allow yourself/family and others time to debrief, discuss and grieve.				
Report	> Document incident thoroughly for ongoing events and outcomes for local Council and legal purposes/future litigation.				
Police	> Inform of the incident.				
nsurance /	> Contact own insurance company if relevant.				
Civil Action	> Legal advice to recoup losses.				
	> Domestic (Feral and Nuisance) Animals Act 1994 Act No. 81/1994 and in particular, Sections				
	24 and 29 Part 1 AA; (Victoria).				
	24 and 29 Part 1 AA; (Victoria). > Objective valuation of losses/costs.				

Breeder Excursion to AAFL and Kelly & Windsor

FLEECE ARTICLE by Steve Pate > Hidden Lake Alpacas, VIC

A day tour in August by 17 members of the Mornington Peninsula Alpaca Breeders group to Australian Alpaca Fleece Limited (AAFL) and Kelly & Windsor, a manufacturer of alpaca bedding products, proved to be not only interesting but very insightful into the issues facing our industry's future.

Australian Alpaca Fleece Limited

An early start in our 19 seater bus for our 2 hour trip to AAFL in Sunshine was the beginning of a long but fascinating day. Arriving at AAFL around 10am we were warmly greeted by Michael Talbot, the Managing Director and his enthusiastic staff. First up was a much appreciated coffee before a look over some of the various alpaca products AAFL are exploring and promoting. The products included throw rugs of various designs, a highly admired ladies coat, scarves, carpet, wall rugs with aboriginal art designs, underwear and socks. We also saw previews of some high fashion home furnishings that are due soon.

Our group was addressed by David Williams - Sales & Processing Executive, John Hoornweg - Head Classer, Matthew McAninly - Fleece Division Manager (recently appointed as the grower contact person for fibre matters), Jennifer Worland - Sales Executive, and Michael Talbot on the remarkable product range and initiatives of AAFL to promote Australian alpaca. A key element to their strategy is to sell the image of "Australian Alpaca" rather than specific products to overcome the impact of product cycles where trends and fashion changes cause demand for specific products to wax and wane. We also had the pleasure to meet Courtney Wright - Office Manager and Lidia Paszka - Accounts Manager.



John Hoornweg (centre), who has extensive experience as a grower as well as a classer, addresses the MPAB group. Watching on are Matthew McAninly (left) and David Williams (right)

AAFL believe we need to develop "Australian Alpaca" to be a premium and boutique brand with significant value-add, as we can't otherwise compete on world markets. The Peruvians have perfected processing techniques over a long period and they have very low costs as a result, and the dominant Chinese manufacturing sector with its low costs can also be expected to drive alpaca fleece prices down in the same way they have for wool, where they have dominated the buying market for the last 10 years.

So our approach can't be just a cost and volume model if we are to compete. The statistics are telling - in the wool market Australia has about 50% of the world market with approximately 470,000 tonnes p.a. and wool only represents 2-3% of fibre in the textile industry. So with our current output of 45 tonnes of alpaca fleece p.a. we are not even a blip on the radar. We have to think outside the box compared with wool marketing. Even so, we must increase the volume of alpaca fleece to expand and preserve hard won markets. To this end it is disturbing that currently only 55% of the clip comes to AAFL - with the craft market only able to take about 15% of the current clip, the proportion going to AAFL should be 85%. The message is clear - we must encourage all breeders to send fleece to AAFL and also to send everything – suitably sorted all the fleece has the potential to be used.

With such a high proportion (70%) of the Australian alpaca herd being coloured animals, the discussion predictably turned to the marketing of coloured fleece. David explained that there are two main demand colours – white and black. White because it can be easily dyed any colour (except black) to meet fashion demands and black because it is expensive and it's not effective to dye white or other coloured fleece to black. Whilst considerable effort is expended finding markets for all colours, there are severe challenges due to the relatively small volumes of each of the many colours. Consistency of colour and repeatable volumes add to the problem of changing fashion demands for coloured fleece that can't be dyed to other colours.

Whilst alpacas in Australia is still essentially an animal industry i.e. the trade in breeding stock, the long term viability will only come from developing a fleece based industry. It was clear that our industry colleagues at AAFL with their limited resources and finances are exploring all avenues to achieve this.



ohn, who travels for 2.5 hours each way to the AAFL facility at unshine each day from his property, explains some of the classing sues with alpaca fleece.

The next stage of our tour of AAFL was to observe fleece lassing.

This is something that should start at shearing time and it is important to get it right from this point. Skirting takes -10 minutes for the AAFL classer, so if the grower can to this it saves valuable time and cost. It was explained that it is best to take too much off rather than risk the leece being downgraded due to skirtings being mixed in AAFL will check skirtings and retrieve any good fleece). AFL are constantly working on improving the quality and consistency of classing lines to improve marketability of the fleece.

During the classing session we were also able to see Zulema Apomayta (Classer) in action. Zulema is from Jeru and insists that women make the best classers. It soon became apparent that she may well be correct as we oticed her listening to the fleece rubbing between her ingers to assist in classing.

One of the interesting fleece issues discussed in this egment was the problem of 'red dust' from some grower reas, where the red colour is burnt in by the sun and can't e scoured out. Another was that of the brown tip on black leece (on crias this comes from amniotic fluids) so this leece is classed as black/brown. It is worth considering hearing crias early in their life to remove the brown tips so heir first full fleece is classifiable as black. The problems f moths and bale twine contamination were discussed as as that of fleece stress points, particularly if they occurred nid-way in the fleece staple. This often occurred in crias here the weaning period coincided with the mid point in leece growth. Should crias be shorn at different times to void this? Another stress point was after shearing when here could be competition between body weight and fleece rowth. Some animals should also be clipped more often han annually (perhaps every 10 months) as some fleece eteriorates if left longer.

n terms of breeding to improve fleece production one of the ideas discussed was increasing the follicle density and libre length on the neck – with the potential to add 100-200 rams more of quality fleece. Another was breeding to extend the saddle fleece further into the belly area.

Kelly & Windsor

The next stage of our tour was a visit to Kelly & Windsor which manufactures bedding products from Australian alpaca fleece. Here we were greeted by Trevor Beuth, the Managing Director who proudly told us of the technologies and processes they have developed to use alpaca fleece for these products. In quilts they have an extensive set of high quality products:

- > Pure Alpaca branded as their premium "Gold" range;
- > Alpaca/wool blend branded as their "Classic" range and also as a machine washable product branded as "Country";
- > Alpaca/cotton blend branded as their "Light" range.

They also produce an Alpaca/wool blend underlay which is considered the best product in the market.

These products are all natural with no chemical treatment to the fibre (except for the "Country" Alpaca/wool machine washable product).

Their markets are domestic retail, domestic duty free and export to boutique retailers overseas. The manufacturing process is slow. They deliberately use old processing machines (one was cast in 1917) to handle alpaca fleece as modern fast machines would not work. Output is only up to 90 quilts per day. The markets are necessarily boutique outlets due to the production limitations but this also preserves the premium nature of the products and fits in with the available fleece volumes in Australia.

The use of alpaca fleece this way is exclusive to Australia and is done under a strategic partner alliance with AAFL who micro comb the fleece to 'de-hair' it of guard hairs for Kelly & Windsor. Interestingly they can only use 30+ micron fleece to have sufficient loft for these products. The fleece must also be white. Kelly & Windsor use about 11 tonnes of fleece p.a. When you consider it is only white and 30+ micron, this must use up all the available fleece of this specification from AAFL's 45 tonne current throughput.

Innovative manufacturers like Kelly & Windsor deserve the full support of growers and breeders as they are helping make our industry viable for the long term. Visit them on www.kellyandwindsor.com ■



Trevor shows the MPAB group the quilting machine that stitches the cover to the fleece insert material. This machine puts 8,566 stitches on each quilt in about 5 minutes.

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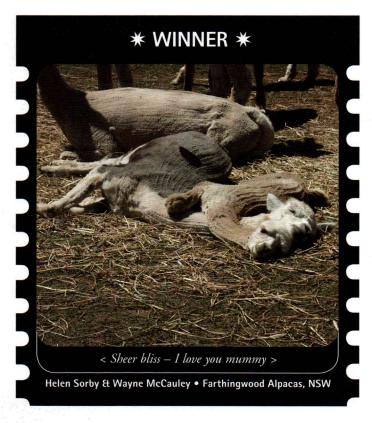
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Every picture does tell a story!

Alpacas Australia is always on the lookout for photos to publish. Serious or humorous, send us your favourite alpaca snaps and let your photos tell us about your stud in either the popular PacaPics pages or the prestigious position of magazine front cover.

The winner in the PacaPics feature will receive a complimentary business card size advertisement insertion in the next magazine. Front cover photo winner will also be awarded the same advertising opportunity as well as five complimentary copies of the magazine bearing their winning photo. The magazines will prove to be excellent promotional tools for your stud.

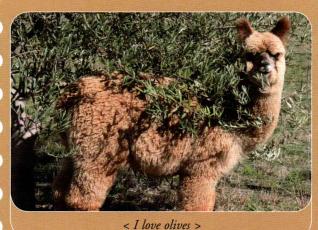
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< We just love a lazy Sunday >

Lindsay & Kerrie Rapley • Kerranda Alpacas, NSW



Julia Waller • Graceville Downs Alpacas, NSW



< A kiss for some hay >

Chris & Mary Johns • Bridge Creek Alpacas, VIC



< I love you >

Robert & Shelagh Van Oort • De Boerderij Alpacas, NSW



< Are you edible? >

Christine & Graeme Purkiss • Bimbi Alpacas, NSW



< My name's Dynasty Domas, what's yours? >

Mike Nichols • Dynasty Alpacas, VIC



< Drought rations again! >

Jan & Glenn Knight • Headline Alpacas, QLD



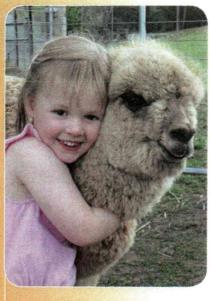
< For goodness sake, don't they realise I know what to do! >

Mike & Jan Salter • Wildwood Alpacas, NSW



< Right, you know the drill, smallest to tallest>

Diana Blackmore • Cable Station Alpacas, NZ



< Beautiful, beautiful brown eyes >

Lesley & Alan Maxwell . Kurralea Alpacas, NSW



< How much do you love me, Romeo? >

John & Julie Lawrie • Bonnie Vale Alpacas, NSW



< I'll have what she's having >

Graham & Jenny Froud . Kingdale Alpacas, NSW



< I'll tell you a secret >

Harry Shuster . Isabella Alpacas, SA



< Being born is a rather tiring experience >

Nikki Evans • Alka Alpacas, NZ



< Mother love >

Cora Zyp • Coraz Alpacas, QLD



< Let me teach you how to walk >

Linda & Mark Agnew • Almaray Alpacas, VIC

Upcoming Events

January

20 Apollo Bay & Otways Show: VIC

Venue: Apollo Bay Recreation Reserve Highlights: Fleece judging; promotional display Contact: Lauris Jephcott (03) 5237 7783

> 22 Charles Ledger Alpaca Fleece Show: NSW

Venue: Berry Showgrounds Highlights: Fleece judging

Contact: Kevin Watson (02) 4448 6267

27 Tarago Show: NSW

Venue: Tarago Showgrounds Highlights: Promotional display

Contact: Peter Bishop (02) 4829 5144

28 Bungendore Show: NSW

Venue: Bungendore Showgrounds Highlights: Promotional display

Contact: John van der Straaten (02) 6238 3590

February

3 Nimmitabel Show: NSW

Venue: Nimmitabel Showgrounds

Highlights: Animal judging

Contact: Lynne Dominish (02) 6454 6180

9-11 Crookwell Show: NSW

Venue: Crookwell Showgrounds Highlights: Fleece judging 9 February; alpaca promotional display

Contact: Penny Pittard (02) 4837 3394

10-11 Tyrendarra Show: VIC

Venue: Tyrendarra Showgrounds

Highlights: Fleece judging

Contact: Andrew McCosh (03) 5565 9413

16-18 Seymour Alternative Farming Expo: VIC

Venue: King's Park, Seymour Highlights: Promotional display

Contact: Rod & Ann Sales (03) 5433 3789

16-18 Bega Show: NSW

Venue: Bega Showgrounds Highlights: Alpaca & fleece judging Contact: Julie McClen (02) 6493 2036

17-18 Gunning Show: NSW

Highlights: Promotional display

Contact: John van der Straaten (02) 6238 3590

23-25 Royal Canberra Show: ACT

Venue: EPIC (Showgrounds) Highlights: Alpaca & fleece judging

Contact: Carolyn Austin (02) 6227 6224

25 Berwick Show: VIC

Venue: Berwick Showgrounds Highlights: Alpaca & fleece judging Contact: Bob McLeod (03) 5629 1140

March

2-4 Royal Bathurst Show: NSW

Venue: Bathurst Showgrounds Highlights: Fleece judging 23 February; Alpaca judging 4 March Contact: Kate Bailey (02) 6887 1233

3 Boorowa Show: NSW

Venue: Boorowa Showgrounds

Highlights: Alpaca judging

Contact: Kylie Martin (02) 6385 8305

3-4 Small Farming Victoria: VIC

Venue: Lang Lang Showgrounds Highlights: Promotional display

Contact: Stella Butler (03) 5997 5520

4 Dalgety Show: NSW

Venue: Dalgety Showgrounds Highlights: Promotional display

Contact: Richard Dixon (02) 6456 3676

9-10 Wagin Woolarama: WA

Venue: Wagin

Highlights: Promotional display

Contact: Ron Raynor (08) 9296 0442

10 Robertson Show: NSW

Venue: Robertson Showgrounds Highlights: NSW Colourbration Show;

Alpaca judging

Contact: Heather Vickery 0411 118 780

10-11 Greenbank Show: QLD

Highlights: Promotional display

Contact: Shayne Barnett (07) 3200 0585

11 Adelong Show: NSW

Highlights: Promotional display

Contact: Gary Orr (02) 6297 6604

17 Wodonga Show: VIC

Venue: Wodonga Showgrounds

Highlights: Alpaca & fleece judging Contact: Wendy Hart (03) 5872 2050;

Joe Hofer (02) 6026 3835

17 Mt Pleasant Show: SA

Venue: Mt Pleasant Showgrounds Highlights: Alpaca & fleece judging

Contact: Jolyon Porter (08) 8568 5254

17-18 Yass Show: NSW

Venue: Yass Showgrounds Highlights: Alpaca judging

Contact: Carolyn Austin (02) 6227 6224

18 Castle Hill Show: NSW

Venue: Castle Hill Showgrounds

Highlights: Alpaca judging

Contact: Sue Maynard (02) 9653 2277

22-24 Toowoomba Royal Show: QLD

Venue: Toowoomba Showgrounds Highlights: Alpaca judging 24 March;

promotional display Contact: Julie & Sheren Macgregor

(07) 3202 3113

24 Red Hill Show: VIC

Venue: Red Hill Showgrounds Highlights: Alpaca & fleece judging Contact: Bob McLeod (03) 5629 1140

24 Camden Show: NSW

Venue: Camden Showgrounds

Highlights: Alpaca judging

Contact: Ray Seymour (02) 4636 6909

24-25 Goulburn Show: NSW

Venue: Goulburn Showgrounds

Highlights: Fleece judging; promotional display

Contact: Jacki Waugh (02) 4829 8157

29-1/4 Lardner Park - Farmworld: VIC

Venue: Lardner Park, Warragul Highlights: Promotional display

Contact: Jenny Miles (03) 5623 6654; Bob McLeod (03) 5629 1140

April

1 Alpaca Fiesta: VIC

Venue: Lancefield

Highlights: Information sessions; alpaca sales

Contact: Ken Haines (03) 5422 3088

5-18 Sydney Royal Show: NSW

Venue: Sydney Showgrounds

Highlights: Fleece judging;

Huacaya judging 7 April; Suri judging 8 April

Contact: Jeanne Brown, Breed Captain

(02) 4576 3333

14 Williams Gateway Expo: WA

Venue: Williams

Highlights: Fleece judging

Contact: Frances Harding (08) 9883 9231

15 TBC Annual Sale Day: VIC

Venue: TBC

Highlights: Alpaca sales; promotional display Contact: Richard Watson (03) 5772 2497

21-22 Autumn Alpaca Show: WA

Venue: Whiteman Park Highlights: Alpaca judging

Contact: Ron Reid (08) 9296 4888

21-22 Alpaca Extravaganza: SA

Venue: Murray Bridge Racecourse

Highlights: Promotional display; demonstrations
Contact: Sharon Warland (08) 8532 3029

27-28 Hawkesbury Show: NSW

Venue: Showgrounds, Clarendon Highlights: Alpaca & fleece judging Contact: Cheryl Kosaras (02) 4573 1177

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Deadlines

Issue 52: Autumn

Due: April 2007

Deadline: Friday 9 February 2007

Issue 53: Winter

Due: August 2007 Deadline: Friday 1 June 2007 Issue 54: Summer

Due: December 2007

Deadline: Friday 5 October 2007

Please book and send all editorial and advertising material to Sandra Wright Australian Alpaca Association Inc. (A0021333P • ABN 33 710 945 160 • ARBN 067 146 481) PO Box 1076, Mitcham North, Victoria 3132 Australia PHONE +61 (0)3 9873 7700 • FAX +61 (0)3 9873 7711 • EMAIL sandra@alpaca.asn.au The popular Weekends at Flowerdale Estate, r new breeders are back in 2007. These attroduction to Alpacas' workshops continue attract participants from all over Australia and ew Zealand. The next workshop weekend is a January 20 & 21.



/hat Participants Say.

lan Wastle and his partner Cherie of Rockville lpacas got their start at a workshop. They say, We went from newcomers, attending the New reeders Workshop, to actually showing our own bacas in no time at all. The help received from twerdale Estate Alpacas gave us the confidence eneeded to make a successful start. We have joyed our involvement immensely."

e Program.

Workshops include classroom learning and nds-on sessions in the barn working with a alpacas. Participants learn the basics: halter ining, chuckering, weighing, body-conditionaring, nutrition, mating, spit-offs, birthing, criate, weaning, shearing, fibre classing, vaccinations, enching, toenail trimming and record keeping.

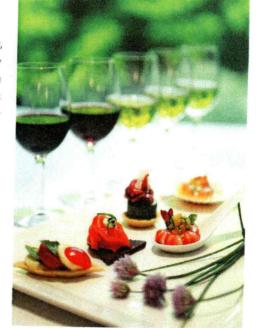
There are also sessions on goal setting, farm nning, paddock and pasture improvement, d development strategies, business plans and rketing your alpacas.

The Venue

Flowerdale Estate is an award-winning, retreat for up to 60 people. Stay in luxury accommodation and let the chefs tempt you with their delicious menus. These workshops have provided a wonderful opportunity for new breeders to network. Many lasting friendships have started at these 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). The package includes accommodation for Saturday night, Saturday and Sunday lunch, morning teas,



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January Workshop

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