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## Designer suri fleece for the most discerning mills and designers

In March 2009, I flew to New Zealand to examine a woven sample blanket of suri fabric at the offices of AgResearch at the Lincoln University. The sampler was 'hot off the loom' and woven using a number of weave designs and yarn combinations to give 40 plus weave/weight possibilities.

> Four suri breeders stood anxiously around the table as the bolt unrolled. Despite the sampler being washed only and half rotary pressed, the outcome was exhilarating – already apparent was the wonderful lustre and soft handle that characterises suri fleece on the animal. The first stage processing had done nothing to diminish its luminosity. The mill's technicians were fulsome in their praise of the way in which the suri fibre had scoured, gilled and converted to yarn. There were no problems in weaving either. Eureka!

> Both the Textile Processing Manager and the mill's finishing expert were now most enthusiastic to take the project to the next stage – six fully finished fabric pieces utilizing various finishing routes to capture and enhance the natural lustre and softness of the suri fibre.



The final pieces were unveiled on 8 July 2009 to the ecstatic 'true believers'. They were magnificent. The excitement in the room was palpable. The quality of the fabric and the suri fibre's performance in the mill exceeded our wildest expectations. AgResearch commented on the fabric's properties...

"...the finished fabrics have an extremely soft/silky handle with exceptional drape."

## We had a beautiful product and it was a world first.

Working with AgResearch was exciting and satisfying for the project breeders and the research personnel alike. The Textile Processing Manager commented...

"the processing team just love a challenge and the suri project got everyone involved. It was a pleasure to work with people who have a vision and the drive and confidence in their passion and who actively do something to achieve their end goal."

For the author it was the culmination of 14 years of dreaming, hoping and planning.

I saw my first suri alpacas at sunset, their silken locks ruffled by the soft wind, turned to liquid gold. I imagined a herd of these elegant animals roaming our farm, producing perfect bales of this glorious, noble fibre from which the finest fabrics would be created; soft, lustrous and caressing, woven from the fleece of this wondrous creature. That was 14 years ago and the beginning of my love affair with suri fibre.



But no one told me that suri fibre was considered impossible to process when it was finer than 25 microns! And I was enthralled by a far lower micron, in the range of 20-22 micron or even finer, which I was positive could be woven into something as exquisite as any pashmina or chantouche.

Without the breed experience and no one to point out to me that the early suri imports into Australia were often broad micron, had poor density and comparatively primitive fleeces, it was soon apparent that my dream could take some time to achieve. But I felt sure that with my wool and textiles background I could understand what high end processing would demand of this fibre and began to plan a breeding programme to refine the suri fibre produced by my herd.

## Our Ten Year Objective was a luxurious suri fibre dripping with lustre, an exquisite handle and uniformity of length and micron.

Eight years later, to elicit a response to the significant improvement in the quality of our herd, I began to show samples of our suri fibre to top mills in Europe. Most complimented the quality, some were wildly enthusiastic about the ultra fine baby fleece, but most dismissed the fibre as too difficult to process – it would be too slippery for the high speed equipment which ran hot, too light and long for the scour, the tops wouldn't have hauteur etc. etc ... (Okay, but it was a work in progress and our total production was too low for even a pilot run in a European mill).

Determined to bring this fibre to market in products other than brushed coating, we approached the New Zealand government's experimental mill at Lincoln University, called then WRONZ, but now rebadged as AgResearch. Since the demise of the Australian textile sector and the closure of the CSIRO scour and mill in Geelong, New Zealand has become a mecca for Australians seeking high quality processing, manufacturing and design.

AgResearch Limited is New Zealand's old WRONZ (the equivalent of the CSIRO) facility at Lincoln University. The textiles section consists of teams of scientists and technical people with a vast knowledge in all aspects of fibres and fibre processing as well as a small-scale fibre processing plant with equipment to process fibre from scouring through to finished fabrics and carpets.

The first two contacts with AgResearch, two years apart, were unsuccessful. The mill's technical personnel were sceptical about





the performance of the fibre in the micron range proposed for the cloth, and reluctant to work with 100% suri, preferring to blend a percentage of wool to make the fibre easier to process. They didn't believe that we were growing fibre of sufficient uniformity to undertake a successful trial. So we gathered a cohort of like minded suri breeders in Australia and New Zealand and further refined our production; selecting animals with higher curvature in their fibre and embedding that in the herds' genetics, shearing when the fibre was shorter, tightening the micron range and length standard deviation, classing only the softest and most lustrous fleece. And we finally seduced them. In early 2007 they saw for the first time samples of suri fleece they could delight in. And we could collect sufficient raw fibre for a run.

Thus in October 2007 an agreement to proceed to a fully documented trial was formalised between the interested parties (four wildly enthusiastic suri breeders – three from NZ and one Australian) and a circumspect technical department at AgResearch. Suri fibre from both sides of the Tasman was collected, scrutinised, classed and reclassed to meet the mill's tight specification, and was finally delivered into AgResearch in June 2008. The waiting began...

So from where the name, **Surissimo** and what does it describe? Surissimo is the fibre outcome of 12 years of breeding suris to deliver fibre that performed better in processing, a fleece that is significantly different to current suri alpaca fibre. And the whole fibre delivery chain is different to that of the huacaya alpaca, too. The author decided to brand this new generation of suri fibre, to differentiate it from suri fibre that is randomly harvested from herds where little attention is paid to the fibre's destination once shorn.

Our suri fibre is *Surissimo* – and it rhymes with *bellissimo* (Italian for very beautiful). It naturally promises high lustre, nourishment and a silky cool handle. But it is produced from animals owned by a group of specialist breeders focussed on high quality performance fibre. Suri breeders dedicated to ongoing improvement of the breed through further enhancement of the suri genetics, best management practices in husbandry, nourishment and the whole farm environment AND total quality management along the entire farm to mill delivery path.

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