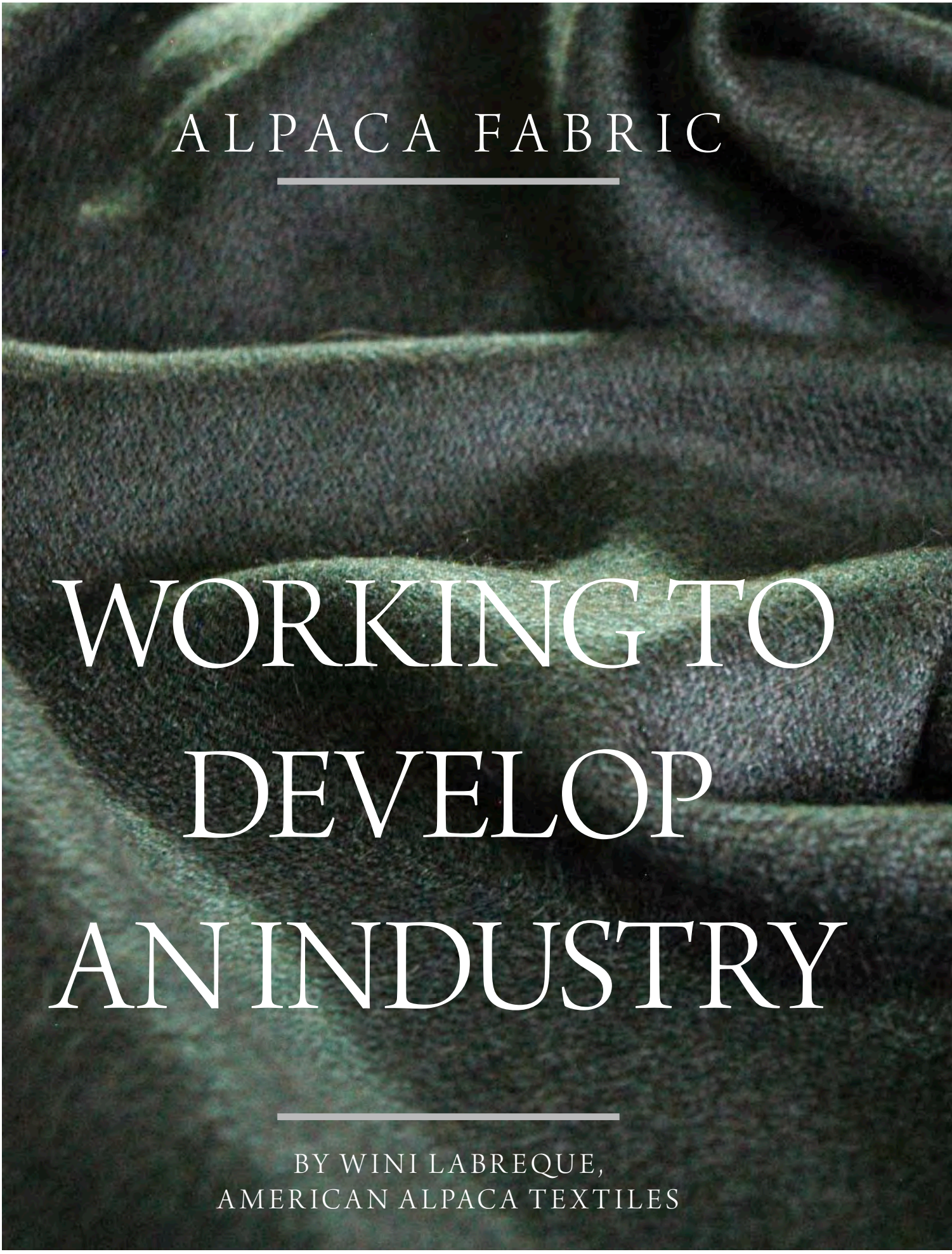


ALPACA FABRIC

WORKING TO DEVELOP AN INDUSTRY

BY WINI LABREQUE,
AMERICAN ALPACA TEXTILES

American Alpaca Textiles, LLC (AAT) have been working for the past four years to develop repeatable, quality textiles utilizing all grades of alpaca fibre. We have faced many challenges in creating repeatable fabric runs due to the lack of uniformity in the fibre available to us. Our fibre is purchased from breeders when we seek specific colour, length, grade or type of fibre, huacaya or suri, we purchase from sorting/grading events across the country and we also accept donated fibre under 30 microns. All fibre is sorted and graded into batches which are then milled to our specifications, ready to be sent to our weaving mill. We utilize a number of different spinning mills across the United States depending on the end product we are developing. Our weaving mill is a small production facility utilising power looms in a variety of set ups. This enables us to be creative in our design and textile development while managing short runs of fabric to test the market. AAT is challenged by the lack of availability of commercial level processing mills to take our fabric and products to the next level.

AAT has recently been focusing on end products for the home decor market including pillows, table linens, drapery and throws. The product will make its debut at a large Home Decor/Design show in New York City in August. In addition, test runs of a suri blend fabric for suiting or clothing has been completed which shows great promise. The characteristics of suri fibre make production more of a challenge in keeping uniformity and length consistencies. The author, Wini Labrecque, has succeeded in developing a proprietary blend of alpaca/tencel which is machine washable and can be put into the dryer. The resulting fabric does not shrink, holds its shine and actually develops better hand over time. It is hoped this fabric will be moved into production in the near future and developed into a clothing product.

The success of our company is very dependent on the fibre supply chain. We require certain standards in fibre production to ensure we can achieve repeatable, quality fabrics. We encourage alpaca breeders to evaluate their programme goals with an eye on improving herds to produce commercially viable fibre.

There must be consistency, quality and quantity in order to supply growing textile industry requirements and needs for production.

BEST PRACTICE

The continued improvement of alpaca fibre production through better breeding practices that take into account fibre characteristics along with conformation are the key to being able to provide quality alpaca in quantities sufficient to sustain a manufacturing process. Sound fibre with uniformity across the blanket in micron, length, colour and minimal guard hair are the primary characteristics utilised in most textile production. Breeding practices that strive for these characteristics make the fibre more valuable since less handling in sorting and grading is required. Breed practices should also include efforts to ensure fibre remains free of impurities and environmental contaminants.

The importance placed on specific fibre characteristics may vary from end user to end user depending on their production needs. The following traits discussed are those of importance to the author in production of our own quality high end textiles for upholstery, drapery and home decor products. A company producing high end clothing may have additional or different experiences in the importance of these traits.

Producing quality end products with alpaca fibre begins with breeding choices. A healthy alpaca exhibiting good body score and solid confirmation traits gives a foundation for

quality fibre production. The alpacas should exhibit minimal micron variation across the body from shoulder to rump as well as down the body to the belly, upper and possibly lower leg. Fibre expressing minimal guard hair across the body as well as guard hair that is closer in fineness to balance of primaries/secondaries. Alpacas that express and maintain fibre micron fineness as they age should be looked upon as serious breeding contenders.

Animal nutrition, environment, parasite loads both internal or on the skin along with effects of shearing are all areas requiring attention in order to produce the best quality fibre possible. For commercial processing it is important to have the highest quality and uniformity in fleece offered for sale if you want to receive a good price for it.

SOUND VISION

Soundness is probably the most obvious but most often missed fibre characteristic in the purchasing and/or sorting process. A batch of fibre that breaks due to tenderness, brittleness, cria tips or from just being dry will cause a high amount of variability in length within the batch. This variability affects the integrity and durability of the yarn, reduces yield, effects blending opportunities, causes pilling and fibre migration in finished fabrics and affects hand. In a commercial grade textile, all of these are unacceptable.

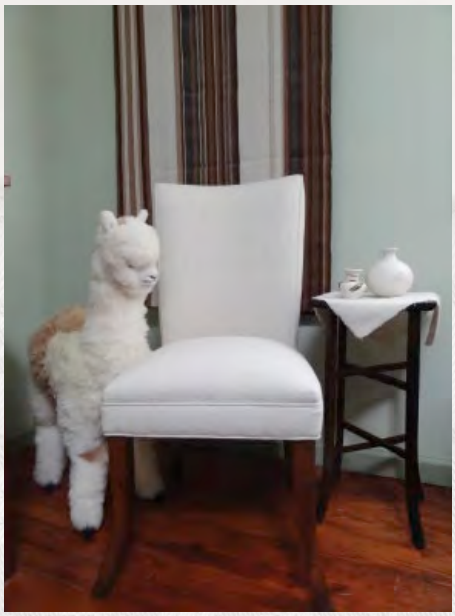
Colour and the uniformity of that colour across the blanket is stressed in the show ring and is a major issue in textile production. When creating fabrics, off colour fibres show up in weaving and act as flaws in the textile. End purchasers of this fabric will refuse to purchase fabric with flaws so it creates production loss not only in materials but also in production costs and labour expenses across the entire chain from raw fibre purchase, shipping, yarn production, weaving process and end product construction.

Length helps determine the best processing method for the fibre and also affect yarn production. Varied lengths within a processing batch can lead to poor yarn integrity, fibre migration out of spun yarn, and poor hand. The effect on weaving can be noticed in the fuzzy appearance of the finished textiles.

Impurities in just one blanket can contaminate

an entire batch or bale of fibre. Cleanliness of fibre for processing helps keep down costs in scouring and processing. Impurities cause a reduced yield and high waste in spinning as well as causing flaws in finished textiles. Again as with off colour fibres, impurities in end fabric result in loss of sales which in turn create production loss and excess expense that is unable to be recouped. For high end fabric production demanding high pricing for finished product, we must strive for clean fibre to be able to produce a desirable product.

Uniformity in micron across the blanket, or lack thereof, affects spinning performance and limitations at the mill. Quality of yarn will be diminished by a high variation of micron within the run. High variation of micron may require



the batch to go through a dehairing/separating process to help remove some of the heavier fibre. This adds cost to production which in turn creates a product requiring a higher wholesale/retail price. Lack of uniformity in micron will affect the final hand and abrasion resistance as well as drape and appearance of the finished textile. Sorting and grading is required to separate the variations across the blanket into like batches and ensure a quality end product is created for the consumer, one that can also be repeated in the same quality.

GUARD HAIR

Guard hair is present in all alpaca fibre. Guard hairs are the stiffer fibres within the fleece that don't readily bend or conform to those fibres around them. They present with a duller appearance than other fibres and don't process in the same manner as the rest of the fleece. Excessive guard hair present must go through the dehairing/ separating process to reduce the quantities within the run. This again will reduce yield, add to production costs and despite all efforts will still have some remain in the end product. These fibres are stiffer so they don't hold in the yarn twist and have a tendency over time to migrate out of the yarn and in turn out of the fabric. This can cause a degradation of the textile fabric as these stiffer fibres pull out of the fabric.

For high end fabric production demanding high pricing for finished product, we must strive for clean fibre to be able to produce a desirable product.

They also cause a prickly effect which reduces the textile quality and value.

Breeding for less guard hair and finer micron guard hair will improve textile production efficiency. Guard hairs do not take dye readily nor in the same absorption level as the rest of the fibres.

Primary to secondary fibre ratio can also affect final textile production if that ratio exhibits a high degree of variation in micron between the two. This fibre issue is evaluated at the same time as micron uniformity when sorting and grading and will affect end textiles in the same manner that uniformity of micron does. Breeding for higher quantities of secondary fibres to primaries will lead to better consistency of fleece, higher yields and less variation. Breeding for primary and secondary fibres that exhibit a closer micron range, staying within 3-4 microns of each other will also lead to more uniform, higher yielding fleece.

Being a new company in the world of textiles, American Alpaca Textiles, LLC is developing a reputation for sustainability, elegance and durability. We strive to become the frontrunner in a world market for alpaca blended fabrics using American alpaca fibre. It us our mission to bring alpaca blended fabrics and products to the commercial textile market using natural and sustainable fibres.

Further information on American Alpaca Textiles can be found at www.americanalpacatextiles.com. We welcome feedback, comments and suggestions for use of our fabrics.