

Spinning Suri; fleece, fiber and locks

Hints and Suggestions by Donna M. Rudd, Master Spinner

About Suri Fiber and Understanding Suri Traits:

- Suri is a smooth and lustrous protein fiber made up mostly of Keratin
- The outer area of the fiber shaft has low cuticle height so it is smooth & reflects light readily
- Suri is known most for its luster, strength and length
- Suri has a slick cool hand
- The sheen, gloss or shine of the fleece and fiber is a reflection of light off the smooth scales of each fiber shaft
- Often the long lustrous locks will grow 6-7 inches or more in one year
- The luster gives sheen to suri yarns and finished garments
- Suri alpaca originated in South America, only 6-8% of all alpaca's are suri
- The fiber grows in long draping locks which exhibit no crimp
- Suri is a slippery fiber because the fiber shaft has low cuticle height
- Suri fleeces can have guard hairs but with new technology breeders are able to breed for uniform fleeces with fewer guard hairs, evaluate your fleeces and fiber source closely
- Guard hairs spin and dye differently than other fibers, they cause prickle when over 30u
- Suri is classed into 6 grades; (Suri Network Fiber Harvesting Code of Practice Handbook)

Grade #1----	under 20 microns.....Suri Ultra Fine	(SUF)
Grade #2---	20.1—22.9 microns.....Suri superfine	(SSF)
Grade #3---	23.0 ---25.9 microns....Suri Fine	(SF)
Grade #4---	26.0---28.9 microns.....Suri Medium	(SM)
Grade #5---	29.0---31.9 microns.....Suri Coarse	(SC)
Grade #6---	32.0---35.0 microns.....Suri Extra Coarse	(SEC)

Negative Fleece Traits; (Suri Network Breed Standards)

- Crimp or Crinkle
- Dull, chalky fleece without luster
- Poor lock definition (no one lock style preferred over another)
- Lack of uniformity of micron, length, lock style throughout the blanket (or fleece)
- Matted or cotted fleece
- Tenderness or breaks in fleece
- Excessive Vegetable matter or any parasites
- Excessive guard hairs
- Warm, dry feel, rather than cool silky hand

Evaluate your fiber supply;

- Study the various lengths and grades in your lock or roving, by knowing the shortest and longest fiber lengths you have an idea of what your drafting length will be, this will also give you an idea if your short fibers will clump up during drafting.
- What is the coarsest fiber and the fineness fibers in your fiber supply? Generally the finest fibers will enter twist readily but the coarser fibers resist twist and the coarse ends will stick out of the twist causing a prickle sensation. Look for a fiber supply that has been sorted and graded to provide you with a consistent grade of fibers within a 3 micron range.
- The fine fleeces of grades 1 & 2 (22 and under microns) will give you the softest feeling yarns, they look and feel like cashmere but have longer fibers.
- Understand what your fiber supply is. If it a raw fleece, it will require sorting and washing before it is combed, flicked or carded? Have you purchased prepared suri roving or top? What grade?
- If you purchased a suri fleece can you tell the tips from the butt end of a lock? Do you know how to remove locks intact from the fleece without disturbing the balance of the fleece? Learn tricks of how to work with suri fleeces before you dig in, it will save you hours of aggravation and you will learn to love the fiber for what it is.
- Study the locks from various locations across the fleece, the neck is often different than the blanket. Study the length and fineness. Open them up and brush them out holding one end. Study those fibers that are removed with vegetable matter, study the dust and debris that is within the locks. All this will tell you how the locks may have been damaged internally from embedded VM and therefore may be tender.
- Processed fibers such as roving or combed top will have been washed with oils and debris removed but it is still important to evaluate the fibers to consider the variety between the finest and shortest fibers to that of the coarsest and longest fibers. Knowing all this will make a difference in how you hold, draft and spin your fiber supply.

Preparing Suri for Spinning; Flick carding, combing, carding

- Suri fleeces have natural oils and waxes along the fiber shaft which attracts soil, sand and debris from the pastures it is raised in, these minute particles may carry an assortment of airborne spores, so I choose to wash all my fleeces before I spin them. Even though as a judge and certified sorter grader I spend a great deal of time working with fleeces that are not washed I choose to keep my spinning environment as clean as I can. Some spinners choose to spin suri unwashed but my choice is to work with washed fiber not only for my health but also because I feel that I can 'read the fiber' for what it truly is when it is washed.
- When I wash a suri fleece I do it one of two ways after it has been skirted and sorted. I decide if I want the locks washed individually or if I want to wash it in a few smaller units.
- Wash locks individually, remove them from the fleece one by one by first identifying the tips. I hold the upper tip end of the lock tightly and draw it away from the base of the fleece while holding the base of the fleece around the lock. The lock is pulled up and the fleece around it is held intact by my other hand. This keeps the other locks intact and ready for their turn at being removed. Usually it works well to follow the rows that the shears have made to remove the locks, during this time you can evaluate and study the locks to remove any excessive VM, matted locks and coarse locks that may have been missed in the skirting process. This is also a good time to sort into grades.
- Washing a fleece in smaller portions rather than one whole blanket has worked best for me. I prefer to carefully separate my fleece into portions that fit into my fine mesh bags without

crowding. Before they go into the bag for washing I pick out any visible vegetable matter, second cuts etc and this is when I locate the tip ends. I like to gather the tip end together like a bouquet of flowers. Holding the tip ends together and lay the fleece with all the tip ends facing the same direction in the bag...this gives some sort of organization to your fleece for later work.

- Teasing your fleece open if it is tightly twisted locks! I always wash a tightly twisted suri fleece first before I tease open the tightly twisted locks for the first time. My reason for this is because I believe picking it open with pasture dirt and oils in it actually damages more than necessary...so I wash it first and pick it open and those locks that need a second wash....they get a second wash.
- Teasing suri fleece. If I do not wish to keep the lock structure I do pick my suri fleeces (provided they are not too long for the picker) or I will often tease them open by hand if I think they are tender. By picking the locks open by hand I can completely evaluate tenderness and grade.
- Using a tender fleece; this is where a hand spinner can do what mills cannot! Tender fleeces demonstrate breaks along the fiber shaft that may occur throughout the whole fleece or a portion of the fleece. As a hand spinner we can utilize that broken fleece into either combed, carded or a combination of either and an endless list of novelty art batts. So long as the spinner understands the length and qualities of the fibers from a tender fleece they can determine what can be made with it. I love to blend tender suri fiber with silk noil as the silk will strengthen the suri, hold in the fibers and add a degree to texture to the yarn. Be prepared to deal with some shedding for a while.

Spinning Suri;

- Humidity!! If you have a suri fly away issue, use a spray bottle with warm water. I always spray my suri the night before I work with it so the humidity is high. Suri loves humidity but not wet!
- I like to prepare my suri by flick carding the locks then spinning from the fold or by drafting each lock into my hand and drafting from one end to the other, spinning worsted.
- When I flick card suri locks I always have fine fibers left in the brush, this is saved for woolen spinning yarn later.
- To flick card a lock I hold one end tightly while gently combing from the end to the center of the lock to remove any debris and knots from the lock, then reverse in your hand and comb the other end. Your lock should now be completely free of entanglements and ready for drafting.
- When I draft a suri lock I pull a few fibers from the tip end slowly from the fiber supply about half the length of the lock before grasping a another small amount of fiber from the lock to draft along with the first supply. As this length increases it gathers within my hand and forms a folded roving which is held safe and warm until all fibers are drafted and held within my hand in a long pencil type sliver. I then flip the fiber supply over to get the first tip end and start spinning from that end. The reason I draft from the tip end first with suri only is because that part of the suri will often be finer by a few microns than the cut end and it just enters the twist easier than a thicker cut butt end. Because the cuticle scales on suri are very shallow and infrequent this does not seem to affect the draft at all. (the opposite would be true with spinning wool...I would spin from the cut butt end to the tip of a staple).
- When drafting suri be sure to keep all the fibers well aligned and under the same tension to avoid bubbling when being washed later.
- Suri and drum carders! I use a drum carder for suri that is 4 inches or shorter in the normal fashion by feeding it sideways into the drum carder. Longer locks I feed slowly holding them over the back of the large drum and allowing the teeth to take a few fibers from the lock in my

hand at a time. This allows the long lock to be slowly drawn onto the drum carder without being tangled, I do the same when the fiber has been removed from the large drum and I run it onto the large drum a second time...holding the carded batt over the back of the large drum so that only a few fibers are taken at a time.

- Remove the fiber supply carefully and wind into a nest for spinning. These long fibers generally need to be elongated gently by hand just before drafting to better organize the fiber supply.
- Do not allow the fiber supply to compact before it is in the drafting zone.
- I have found that keeping the suri fiber warm helps it naturally spin & twist easily and happily.
- Fine suri fleeces and fiber feels softer and makes softer yarn, grades 1& 2 feel like cashmere.
- I spin suri quite fine with enough twist to make a good 2 ply yarn but not too much to make the yarn over twisted and harsh. I believe each fleece or fiber supply is different so you need to do samples to see what twist to insert into that supply to make a good yarn, keep in mind that some fibers that have been processed may have spinning oils in them and when they are washed out your yarn may drift apart. So test, sample and wash.
- Suri spins worsted or semi worsted naturally because the fibers are long and smooth like silk.
- Fine suri is a dream to spin by itself or blend with other like fibers. When I blend suri, I prefer to use hackles. I have blended suri with silk, seacell, tencel, cormo, merino, kid mohair and rambouillet successfully for various reasons, but rarely do I use more than 10% of a introduced fiber to suri.
- Suri is inelastic so when stretched it will not rebound like other fibers so hold your fiber supply gently.
- I have found to spin suri the woollen method that the fibers need to be not more than 4-5 inches long and prepared into larger loose rolags and spun using a supported long draw method. I love textured yarns and suri spins into a good strong yarn with texture this way and more so if it is blended with fibers of different lengths.
- I love spinning suri for Boucles! Suri makes big loops, small loops, wraps, spirals, tips and whips! Suri makes all types of boucles. Higher coarser grades of suri make wonderful loopy boucle yarns with lots of volume, texture and its dyes like mohair into brilliant colours.
- Another way I use suri is in Novelty or Art yarn. Suri blended with a variety of fibers, colours, lengths and mixtures will give you a 'Art Batt' to dye for and it is fun to spin until it is all gone.
- Try core spinning suri....it just wraps and wraps and then it wears and wears. You will be amazed how truly versatile suri is because you can do everything with it.

Finishing Suri;

- Wash suri yarns gently in warm water and mild soap and rinse well. I usually wash my fine suri yarn when they are on my PVC niddy nobby so that they will not boucle, sometimes they still do. Sometimes a suri yarn will do this funny boucle or bubble effect when they are washed, so I always wash and rinse them very gently and spin dry then if they are not on my PVC.
- Garments should be blocked with the idea that they will not rebound. Lace shawls, scarves, hats and vests are ideal garments to make with suri yarns.
- Garments should be knit with patterns to keep the garment in shape. Knowing that suri *may* slip and slide and grow....so don't let it by knitting smart patterns that keep their shape forever. See www.surinetwork.org for patterns specially developed for suri yarns.

Finding the right suri fleece for your project:

- Find a suri breeder or fiber supplier thru the internet, check out www.surinetwork.org for breeders near you.

- When you evaluate a fleece or roving be wisely critical and judgemental.
- Get personal with the fiber; touch it, study it, pull some out and look for short and long fibers, check for negative and positive suri fleece traits.
- Enjoy the journey! Enjoy the feel and look of the locks from tip to cut end.
- If you don't feel right about the fleece...pass it by! There are many others out there..be choosy!!
- Remember fineness equates to softness. A fleece can be uniformly coarse and feel great and have many uses, but if you want a soft hand and next to the skin garment...find a fine micron fleece...say grade 1 or 2.
- You will have to pay more for high quality, clean fine fleeces! But the breeders need to be paid more to produce good quality fleeces...so let's support them!