



# Fibers, Yarns and Chemicals

By Leef Bloomenstiel ©2003

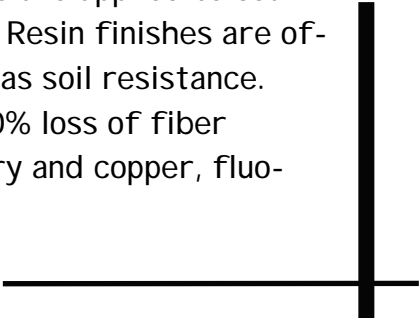
---

Most fiber enthusiasts come to spinning for the advantage of working with natural fibers without the influence of chemicals. Over the years, many customers have told me that they had thought themselves to be allergic to wool or other natural fibers, when what they were actually experiencing were reactions to the vast amount of chemical residues that are left in factory produced clothing. In fact, many can wear all natural fibers quite comfortably. So, the question I challenge you to ask yourself becomes, "Is your 'all natural' product, chemical free?"

Industrial spun yarns are produced in high volume for the high speed power looms and weaving factories. These yarns have been chemically treated through several processes to make them "behave" for the weaving machinery. A vast majority of mill-end yarns are sold to hand weavers. These are the industrial "left-overs" from the industrial weaving runs, and are re-marketed to hand weaving supply houses. For the most part, the yarns are good quality yarns. It is just good to remember that they should be well cleaned to remove any finishes and residues.

Even raw spinning fibers need to be cleaned. Cotton is sprayed with chemical defoliants for easy picking not to mention the entire barrage of insecticides used during the growth of plants for fibers. Many fiber animals are treated for lice by sprays, dipping, and powders. These facts alone merit a good fiber cleansing!

Fibers that are sent to processing plants to be processed into rovings, yarns or fabrics will typically undergo chemical treatments in various forms. After the initial scouring process, some fleeces are subjected to hydrochloric or sulphuric acids to dissolve persistent vegetable matter. This is often referred to as "carbonizing". Wool that is made more washable (and therefore less inclined to felt) is chlorinated to remove the wool scales. Sometimes, these processes will weaken the fibers. To avoid breakage of very fine or weak fibers, an oil is added before the wool is carded and processed into roving. Other finishes might include mothproofing and flame retardant treatments. These finishes add new properties to the roving or yarn, while other finishes are applied to counteract the coarseness or weakness caused by the earlier finishes. Resin finishes are often applied to cloth for added strength and other properties such as soil resistance. The permanent press finish applied to cottons alone can cause a 50% loss of fiber strength! Toxic chemicals such as compounds of chromium, mercury and copper, fluo-



rides and formaldehyde are commonly used in many finishes.

Yarns for weaving are sometimes treated with chemicals to make them perform more smoothly. The finish will alter their natural appearance, and they will appear flatter, smoother and harder than they will be after washing. I highly recommend winding off some yardage, sampling and following it up with wet finishing to get a better feel for how the completed item will look and perform. Without sampling, you could very well get something you just did not foresee! The same goes for knitters who buy coned yarn. A reliable gauge swatch can only be done with the yarn after it has been properly washed and dried.

I encourage ALL fiber enthusiasts to take the time and properly clean and wash their fibers, and end products. Many people who purchase our fine made natural products expect it to be chemically free. If you use mothproofing or any other treatment in your final rinse process, please state it on your label.

For those of you who like to weave with your handspun, you can make your own warp sizing for yarns that are soft or fuzzy. Sizing will reduce the fuzziness and fraying caused by the abrasion from your heddle or reed. Not all yarns will need sizing, but for some, the sizing will make weaving easier. I have tried many recipes and have found that gelatin, is excellent for most ALL natural fibers. It washes out very easily and is commonly available at the grocery store.


#### GELATIN SIZING for NATURAL YARNS:

Sprinkle 2 tablespoons of powdered unflavored gelatin over the top of a quart of cool water. Allow it to stand for a few minutes, as it will soften and begin to dissolve naturally. Stir or whisk to blend. Dip your loosely tied skeins into the solution and hang to dry. Lightly weight you skeins if necessary. Turn often to facilitate drying.

You will find that this solution will wash out easily.

Remember, your end products, whether they be handspun yarns, wearables, rugs, etc., will be no better than the fibers you use to produce them. Proper preparation, washing, finishing and blocking are all important aspects of spinning with natural fibers.



APPLE LEEF FARM   
Les and Leef Bloomenstiel  
7454 FM 121  
P.O. Box 776  
Van Alstyne, TX 75495  
903-482-5128



<http://appleleeffarm.com/>