TIME FOR A FORUM ON TERMS USED FOR TEXTILE FIBERS

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The advances in manufactured fibers and textiles have garnered interest and excitement of textile artists and consumers alike for a myriad of reasons, including health, environmental, and fashion. The chemical and molecular nature of these advances, however leads to confusion and misunderstanding of the new fibers in the materials. This is exacerbated by the current climate of distrust for chemical words and desire for "green" products and the unregulated (mis)information and marketing on the web. Textile artists, consumers, and the clothing and household textile industry need clear names and labels to identify the materials they are using.

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I'm a Textile Teacher/Artist – Not a Scientist, nor Rumplestiltskin

I'm a Master hand spinner and an international spinning teacher for nearly thirty years (like Rumplestiltskin, the old man in the fairy tale, except I don't hold babies for ransom). I teach the old skills, spinning fleece into wool yarns and straw into gold. Actually, flax into linen!

Textiles include fibers, yarns, fabrics, and finished goods. I enjoy all the processes, all the decisions. I also enjoy teaching others to do the same. I take pride in providing accurate, clear, and understandable information. My students ask for clarity as they navigate the fiber waters. It seems that continual developments in the creation and labeling of manufactured fibers have made this more difficult than it should be.

Textile Identification and the Public

Research and development in textiles are advancing at a phenomenal rate, here and abroad. Proper labeling is increasingly technical, often only initials reflecting chemical formulation: *i.e.* polylactic acid = PLA on labels and text. This is unfortunate because the buying public is currently hypersensitive and very distrustful of chemical-sounding words, probably from their necessary inclusion in food industry labels.

Adding to this is an increasing public ecological awareness combined with "natural" and "green" claims from unregulated web (mis)information. This has created a public ripe for "Bamboo-zling" as the Federal Trade Commission (FTC) called it in Aug. 2009. The FTC sent warning letters on Feb. 3, 2010 to large American retailers explaining that most imported, soft, shiny bamboo fibers were rayon, and they were on notice of liability for inaccurate labeling. I still run across small retailers who feel this does not apply to them, and they continue to sell bamboo as natural fiber, when in fact it may not be. What are we to do?

One FTC task is to categorize and standardize our textiles labels. They try to be transparent, periodically revising and updating their standards, after time for public comments. The FTC is in charge of American-created fibers and imported fibers. The International Organization for Standardization, ISO, is the corresponding global watch group. Both work to catalog newly invented fibers. Regrettably, web blogs and ads are not controlled for accuracy. The tide of small-batch imported fibers and textiles seem to be sliding under the FTC radar, complicating the issue of clarity.

So, What Can We Call These New Textiles?

By 1950, the lines were clearly drawn for manufactured fibers. In simple terms, rayon was considered regenerated cellulose from natural cellulose. Nylon, polyester, and most others were labeled as synthetic, being manufactured from non-cellulose sources, usually petroleum-based. These simple terms were acceptable and understood by most consumers. But with compound and molecular technologies from multiple sources, detailed chemical composition became the clearest way to designate the differences between the new fibers.

Cellulosic – A Web-site Catch Word for New Textiles

Many of the new textiles create fibers from plant waste – sugarcane and banana to name two, plus fiber from bamboo and corn, rapid-growth plants. I have seen ***cellulosic*** used as a catch-all term increasingly on websites for most new plant base textiles or fibers. Consider these examples: Corn-Ingeo™, a Nebraska fiber created by Cargill, uses the corn starch from the corn kernel to create a PLA, polylactic acid fiber, essentially polyester from a different source. It's often called ***cellulosic*** since it comes from corn.

Soysilk™ an imported fiber that plays on its 100% natural and ecological qualities is made from liquid-okara, a tofu by-product. A Chinese company advertising their SPF, soy protein fiber, indicates that up to 45% of the textile is protein with the remainder high quality monomers and polymers. It is often referred to as ***cellulosic***.

Nano technology brings us Black Diamond™, labeled carbonized bamboo, which applies carbonized bamboo ions to extruded fibers. This is sold as ***cellulosic***, even though in my burn tests, the fiber melts, sputters, drips, has a sweet smell, and ends with hard black edge consistent with polyester, not cellulose.

Another nano-tech fiber SeaCell®, I think correctly sold as ***cellulosic*** fiber, has nano-sized particles of purified seaweed added to Tencel™, Lenzing's 1992 new environmentally friendly, "closed loop process" rayon. When I burn test this, it is like cotton – it burns evenly, smells like burning wood, and has very little ash.

Even historic flax is being reshaped. The stalks, which require a retting process to release the fibers, is cut short and treated with a new set of enzymes, which release even finer fibers that now act and feel like cotton. This fiber called CRAiLAR® is working its way through the FTC approval to retain the name **flax**, but **not linen**.

So what are we spinners, weavers, tailors, knitters, and quilters to do? How can consumers know, with all the "green washing", just what we are really getting, using, and buying? There should be an easier way for manufacturers, scientists, government agencies, and consumers to agree on consistent, clear names and categories. Is it time for a public forum? After all, we should all at least be speaking the same language.