The Marketing and Certification of Sustainable Textiles

By Maria C. Thiry, Features Editor

ONCE UPON A TIME

The modern world is full of textile products. According to Martin Bide of the University of Rhode Island, "The volume we use is incredible! The world average of textile fibers per person, per year is around 20 pounds—for the United States that volume can be as high as 80 pounds of textile fibers per person, per year." Considering the vast needs of the world’s population, that’s a mountain of fabric.

For those companies throughout the textile chain that are concerned with the environmental impact of all these textile products, it’s important to educate everyone, especially their customers, about the need for sustainable textiles.

Joshua Sandstrom of Circle of the Sun markets his sustainable textile products with hangtags: "Every garment comes with a story. We need to tell this story—this is just the beginning of a major revolution in business."

THERE WAS A GREEN LAND

"Being 'green' at least gets people to look at a product," agrees Steve Davies of NatureWorks’ Ingeo fibers. "But for green to sell broadly, cost and performance must be competitive." Christopher Gibbs of Consoltext is betting that the company’s new organic cotton line "will help us carve out a distinct market niche within a segment that is overrun with competition. Green textiles are in demand and those companies that can successfully produce them will reap the benefit. Our new organic cotton line will provide us with added credibility in the textile industry both in terms of an environmental perspective as well as technical expertise."

Nike has invested their time and resources into organic cotton for many of the same reasons. "One of the benefits of sustainable textiles is market access," says Eriana Duffy of Nike. "Sustainability resonates with consumers around the world."

Mike Italiano of MTS agrees. "Sustainable products increase brand value, reduce liability, and create a 'halo' effect for the other brands a company sells."

"The Organic Fiber Council of the Organic Trade Association has forecast growth in the organic fiber market of 29-39% over the next five years," says Scott Leonard of Indigenous Designs. He feels that this growth is a result of years of long term education building in the marketplace.

With Beautiful Vistas

"The outdoor segment is very synonymous with concern for the environment, because consumers that enjoy the outdoors want to continue to do so," notes Leonard.

Certain target markets—such as Japan, Europe, and New Zealand/Australia—
lia—also see added value in sustainable textile products, according to Duffy. In general, says Duffy, women more often tend to see added value in sustainability. This translates into the marketing and sales of women's wear, but also spills over to children's products because women tend to be the primary purchasers of children's clothing. As well as valuing environmental concerns, purchases for children also follow concern for the safety of a product that comes in direct contact with children.

**Fabulous People**

According to Leonard, the Green Consumer is part of the LOHAS—lifestyles of health and sustainability—market demographic. "LOHAS is a growing demographic, currently measured at 45 million people in the United States alone," says Leonard. "These people want the story behind the garment. They are willing to pay more for organic, sustainable products."

James Heiden of Teko feels that the market for sustainable textile products in the consumer arena will follow that of the organic foods industry. "The whole foods demographics are similar, and their profits and sales are showing tremendous growth," he says. "People do really care, but we have to educate the consumer about what sustainability really means."

In addition, notes Owen Hammond of Teko, "The performance and price need to be competitive with traditional products. If you create products that aren’t useful or of good quality, you are wasting resources—therefore you’re not really sustainable."

Notes Italiano, "Consumers want green textiles. Ninety-eight percent of the public would buy a sustainable textile product if the quality is as good as, or better than, a traditional product, and if their price needs are met. The demand is there."

**And Fantastic Buildings and Conveyances**

That demand from the marketplace is often helped along by nudges from regulators. Tightening chemical regulations in Europe over the last few years, such as the EU Chemicals Directive, has impact on both the European textile industry and on merchants attempting to import textile products into Europe.

In other markets, government regulations have had a more profound impact. According to Bill Gregory of Milliken, because of Presidential Executive Order 13101, the U.S. federal government was required to give consideration to products with recycled content. Government procurement offices were required to purchase "environmentally preferable products" (EPP) wherever feasible. The U.S. Green Building Council developed
According to Gregory, LEED Silver-rated buildings and furnishings have been mandated by governmental bodies. "There are large incentives for developers of LEED-rated commercial buildings. These buildings get expedited permitting, higher lease rates, higher occupancy rates, and lower mortgage rates," says Gregory. This translated into tremendous growth in the demand for environmentally friendly products for the commercial carpet and fabric markets. "The commercial 'green building' market has experienced 100% growth over the last five years, with 75% growth last year in textiles such as carpet, upholstered furniture, and wall panels," says Italiano.

Gregory believes that while the leading growth areas are in the commercial fabrics market, the growth of green fabrics in the commercial market may influence the home furnishings market in the coming years.

He also sees awakening interest in more environmentally friendly fabrics from the automotive industry. "Initially, of course, the environmental concerns of automobile manufacturers were primarily focused on better gas mileage. But now they are beginning to focus on the fabrics in the car and other components," says Gregory. "Milliken is exploring the potential for creating environmental standards for automobile textiles. Along with Johnson Controls Inc. (JCI), a Tier I supplier, we are leading these efforts."

**MENDACIOUS MERCHANTS CAME TO THE LAND**

Along with the potential for growing markets and increased profit comes the potential for false or exaggerated marketing claims, sometimes known as "greenwash." Thomas Hessellund of Novozymes points out that several environmental textile standards in environmentally-conscious Europe allow producers to label products that pass those standards with eco-logos like the "Flower," or the "Swan."

"One issue is how you can tell if a textile is 'green,'" says Hessellund. "The label has to do with how the products are produced—not only with measurable results on the end fabric. If the product is produced within the labeling country, it can be checked more easily. If the labels are used by producers elsewhere [importers], it would be more difficult to check if all the claims were true."

In addition, according to Bide, "A lot of companies put effort into appearing green, and have made cosmetic changes, but not continual improvement, not a real commitment to sustainability."

Some companies try to safeguard their green reputation by putting stipulations into their contracts with downstream companies that their product will be used in a sustainable fashion. "We require that if producers use the Ingeo name that they agree to meet international standards on minimum employment age, and that they agree to abide by our list of prohibited substances," says Davies. "Additionally, use of the Ingeo brand is restricted if they blend it with synthetic fibers. We prefer that producers blend Ingeo with natural fibers."

In some cases, government regulations lend a hand against greenwash. "The Organic Fiber Council helped the USDA set and qualify standards for the meaning of 'organic' relative to fibers," says Leonard. "The word 'organic' is a legal term. Truth in Labeling regulations make it illegal to use the word 'organic' without the fiber being Certified Organic by accredited third-party certifiers according to USDA certification standards."

Italiano says that the struggle against greenwash requires credible consensus standards and certifications for textiles to be marketed as environmentally preferable.

**BUT UPRIGHT JUDGES CAME AS WELL**

The First Judge Was Called Oeko-Tex

The Oeko-Tex Association (International Association for Research and Testing in the Field of Textile Ecology), based in Switzerland, grants certificates according to Oeko-Tex 100 and 1000 standards. The first Oeko-Tex standard was published in 1992. According to the organization's U.S. representative, Manfred Wentz, the Oeko-Tex 100 standard is "the most recognized concept in the world for textiles without harmful substances. Oeko-Tex is beneficial to companies that engage in international..."
trade since it verifies relevant international government regulations. It should be noted that Oeko-Tex does not set the regulations, but reviews national regulations and revises the standard when new regulations emerge. We feel that certification needs to be internationally accepted because the textile industry is international.

The Oeko-Tex 100 guidelines list conditions, test parameters, and limit values for potentially harmful substances in textile products. The limit values detail the acceptable concentrations of these substances (because substances may not be harmful if found in limited quantities). Different levels are considered acceptable for products intended for babies, products in direct contact with human skin, products not in direct contact with skin, or decorative materials.

Certifications are available per product line, and must be renewed every year. The company certifying its products against the standard must send in samples of the product for testing. Components of finished garments can also be certified individually. Raw materials like dyes are not able to be certified, but, according to John Easton of DyStar, dye suppliers like his company often provide their customers with literature detailing which dyes can be used to produce textile products able to pass the standard.

For a product line to be certified, after their sample product passes the tests to meet the standard, a company must also to sign a declaration guaranteeing that manufacturing processes won't be changed. Oeko-Tex randomly tests 10% of certified products in the marketplace, by anonymous purchases at retail stores. “Our motto is trust, but verify,” says Wentz.

The Oeko-Tex 1000 standard is a testing, audit, and certification system for environmentally friendly production sites. The standard claims to provide an objective assessment of the effectiveness of a company’s actions in minimizing the environmental impact of their production site. To receive certification under Oeko-Tex 1000, companies must meet the stipulated criteria regarding environmentally friendly manufacturing processes and provide evidence that at least 30% of total production is already certified under Oeko-Tex 100.

Oeko-Tex 1000 requires that companies avoid or limit the use of harmful substances in production, observe stringent limit values relating to wastewater and exhaust air, optimize their energy consumption, ensure low noise and dust pollution, and introduce measures to ensure safety at work. Statutory requirements and regulations must be complied with as minimum requirements. The use of child labor is prohibited.

Retailers are looking at Oeko-Tex certification for all over the world,” says Wentz. “Ignoring environmental concerns may damage the reputation of the brand and cost more money over the long run than certification. Certification gives a documented advantage over someone who doesn’t have it.”

MTS Flew In On a Magic Carpet

The Institute for Market Transformation to Sustainability (MTS), based in the United States, has developed a sustainable textile standard based on lifecycle assessment, the Consensus Unified Sustainable Textile Standard 2.0.

“In the United States, the state and federal governments were aggressive in suing manufacturers over environmental marketing issues,” says MTS’ Italiano. “In order to make an environmental claim that is legal, it has to be based on information on an entire product’s lifecycle in order to make a broad claim such as ‘environmentally preferable’ rather than a narrower claim such as ‘recycled content’.”

According to Italiano, the MTS standard covers the whole supply chain, and is performance based. The standard features six areas of credit over a product’s lifecycle: safe for health and the environment, pollution, and social equity requirements (such as meeting ISO 14000 targets), re-use and reclamation efforts, and social equity requirements (such as no forced or child labor) across the supply chain.

MTS standards are used to evaluate textile products that can be used in U.S. LEEDS Green Buildings, and have been supported by the Carpet and Rug Institute. “Designers and specifiers wanted an easy way to specify environmentally preferable products,” says Stuart Jones of Interface. “The standard requires design for environment tools and lifecycle assessment tools.”

Additionally, according to Jones, “This standard covers the entire supply chain including end-of-life management and social responsibility. Appropriate sustainability practices include choosing vendors who are socially responsible as part of your purchasing activities.”

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GreenBlue, a not-for-profit organization focused on sustainable product design
based in the United States, believes that the contract textile and carpet industries are good sectors to explore the nature and utility of “sustainability” standards. “Both of these industry sectors have made great strides toward realizing some of the key concepts of sustainable design and manufacturing,” says James Ewell of McDonough Braungart Design Chemistry (formerly of GreenBlue).

Lauren Heine of GreenBlue feels there are drawbacks to relying too heavily on lifecycle assessment (LCA) tools. “A lot of sustainable issues are very subjective. Not every metric has the same weight. The problem with using lifecycle assessment alone for your metrics is that LCA tends to give a lot of weight to energy savings,” notes Heine. “LCA averages metrics and doesn’t know how to value some items—therefore it leaves them out.”

“I don’t discount the efficacy of LCA,” says Ewell. “But it is not a proactive design tool. LCA is great at looking at existing problems, but is not as good at designing solutions. For example, it might place a big emphasis on recycled content because that is an attribute with easily measured metrics, while it reduces emphasis on other important attributes like chemical and material toxicity.”

“Good standards will be able to make a compromise between the required amount of information that must be gathered for a company to comply and with what companies are actually able to do with their available resources,” says Ewell. “We need to be very clear on what the requirements are and what must be done to meet them. It is important to have benchmarks as objective and fair as possible that are clear and transparent to end users.”

An important goal of GreenBlue is to pull in the portion of the textile manufacturing community that doesn’t have the knowledge or resources to match the more advanced companies. “They don’t have programs in place. They don’t have sustainability education. We feel that it will make a bigger impact to pull up the lower third of companies than to squeeze out an additional 10% out of the top companies,” says Ewell.

“We need to focus on specific metrics that are the most important as they relate to their main impact on textile industry—such as the quality of the release water as well as the quantity of water used. Besides simply providing sustainability standards, it is important to create supplementary guidance documents to help companies achieve those sustainability goals,” notes Ewell. “We have to figure out the transitional steps to get them toward sustainable goals,” says Heine. “Manufacturers need a reward for their efforts—they need to stay competitive. The challenge is to figure out how to stay competitive and yet meet sustainability goals.”

Bluesign Came From the Mountains
Bluesign Technologies AG, based in Switzerland, bases their standards on the production of the textiles. Instead of testing finished products, the components and processes that meet the specified criteria are already determined before production begins. Bluesign tests all inputs into the textile chain, especially screening all the substances going in. The standard screens on-site in the production facility for water and air emissions, as well as occupational health for the workers.

“The principle of the Bluesign standard is to make a highly individualized assessment,” says the organization’s Peter Waeber. “This is why screening on-site in the production facility is an important component as the only way of taking specific local factors into account. The most important goal of the Bluesign standard is to achieve maximum resource productivity, which automatically leads to maximum cost efficiency.”

To meet the standard, manufacturers must choose very eco-efficient products. The idea is to exclude hazardous substances from processes at the outset. Along the entire production chain, products should only contain components and undergo processes that are harmless to people and the environment, says Waebier. “We also recognize that these companies need marketable product to sell. Our intent is to help companies produce safe and value-added products.”
Bluesign believes that while promoting ecologically friendly processes and components, it is important never to compromise on product functionality, quality, and design. They recognize the difficulty of producing textiles that are completely environmentally "pure" and believe in companies using the "best available technology" (BAT) to do the best "green" they can.

Bluesign designates some chemistries "black" or harmful, and indicates that these should never be used in products (in this case, Bluesign indicates alternative chemistry via their know-how database). Other chemistries are designated "blue" or completely harmless to people and the environment. Components that can't be classified as completely harmless, but that also don't contain substances that preclude their use, are classified as "grey." "Grey" chemistries may be used to a limited extent if they are tolerated under certain conditions, are needed to reach a designated performance of the end product, and there is currently no better alternative available.

"Ours is a practical system that will work for industry to produce realistic high-tech textile products in a sustainable way without compromising consumer safety," says Waebler.

And Many Other Judges Came As Well

According to Hessellund, other "green labels," such as the EU Eco-Label for Textiles, are available in Europe. "Eco-Label for Textiles is the European mark for ecological products that requires a life cycle analysis of the total production, care, and disposal process," says Hessellund. "This label focuses on sustainability and overall environmental impact based on a 'cradle-to-grave' or 'life cycle' analysis. The approach is to keep toxic materials out of the total system, and to minimize environmental footprint at all stages, from original fiber, to production, to the final garment."

Several other environmental standards for textiles are available, from organic standards to ISO 14000 production standards. "While ISO 14000 certifies production capabilities, it just says that a company has an environmental policy and sticks to it," warns Bide. "That doesn't guarantee how good that policy is."

The Virtuous Merchants Rejoiced

Environmentally conscientious textile producers and retailers are glad that standards exist to measure sustainability for textiles, but many feel that there are too many competing standards, or that no one standard is quite right for their needs.

"There is a growing group of standards," says Gregory. "Our concern as a manufacturer is a collection of competing standards. We're looking for a unified, global standard."

"Because the issues were so complex and not at all cut and dried, a lot of sustainability standards development work was developed initially out of the mainstream of standards development organizations," says Heine. "However, we believe that sustainability standards for textiles need to move to more robust, more rigorous standards development processes. It might benefit from moving to the mainstream standards development community. I'd love to see things moving in that direction."

"The problem with that is the purview is so large an issue. Standards for sustainability must define and quantify things that are value driven. There is not one particular detail that can be focused on. The issue is complex by its very nature," notes Ewell.

While he agrees that standards are necessary, Heiden also warns that there is a danger of complacency standards may foster. "When you meet a standard, you are achieving a minimum," he says. "Ideally, a responsible company has to keep trying to be 100% sustainable—you must keep trying to do better."

AND THEY LIVED HAPPLY EVER AFTER

No one disputes that the textile industry has a long way to go with regards to sustainability. "Awareness in the industry is needed to make sustainability efforts successful," says Tom Weinbender of Schoeller Textiles. He feels that the market must support environmental issues, or they will fall by the wayside. "Together we can all come up with ways to educate and inform our customers and make it work," he says. After all, every shirt has a story.