

LOWER YOUR FOOD'S CARBON FOOTPRINT

LIVING WISELY » LIVING WELL

natural

SPECIAL 2008
RESOURCE GUIDE

HOME

500+
GREAT GREEN
PRODUCTS

Plus!

GREEN BUILDING
Which Method is Right for You?

ECO-FRIENDLY TEXTILES

WHAT'S ON TOP?
Best Roofing Choices

Every Issue
is a
Green Issue

JULY/AUGUST 2008
US \$4.99



www.NaturalHomeMagazine.com

Eco-textiles are hot right now,
but it can be tough to sort out what's truly green.
Our guide gives you the rundown.

Fabric for living

The Ins and Outs of Organic Textiles

JESSICA KELLNER



Lula Textiles' hand-woven, hand-dyed silk and organic cotton textiles are fair trade, use low-impact dyes and honor age-old weaving techniques and processes.

Big changes are afoot in textiles. Long considered one of the world's most polluting industries, with chemical-heavy production practices along with runoff and air pollution, the textile trade is rapidly expanding its earth-friendly options. According to the recent U.S. Market for Organic and Eco-Friendly Home Textiles report by Specialists in Business Information (SBI), organic and eco-friendly textile sales have seen double-digit growth in the last several years, and the industry projects another 40-percent increase from 2007 to 2010. Globally, sales are expected to expand from \$1.1 billion in 2006 to \$6.8 billion in 2010.

The rapid growth of organic textiles sales may be due in part to the introduction of organic lines by popular retailers such as Target, Ralph Lauren Home and Bed Bath & Beyond. By responding to consumer demand for organics, these powerhouse players have in turn helped increase attention, awareness and distribution of these products to the marketplace.

But where there's money to be made, clever marketing and greenwashing can often confuse the issue—so it pays to know what to look for.

Organic cotton

One of the fastest growing markets in sustainable textiles is organic cotton. "Organics are grown without herbicides or pesticides and processed without bleach or chemical dyes," says Rowena Finnegan, owner of sustainable furniture company and design consultancy Eco-Terric (www.Eco-Terric.com). "Conventional cotton farming uses 25 percent of the pesticides used globally. Those working with pesticides are at risk every day. And pesticides get into the groundwater, which isn't good for the planet or for the end user."

Demand from retailers and consumers, along with the advent of organic lines among major manufacturers, have driven sales of organic cotton over the past few years. A report by Organic Exchange, a nonprofit organization committed to expanding organic agriculture, found that U.S. organic cotton product sales have increased 55 percent each year from 2001 to 2005.

While the United States Department of Agriculture (USDA) does certify some organically grown cotton, it does not certify finished cotton products, so ask if organic cotton textiles were finished using harsh chemical dyes or treatments such as stain-repellant or flame-retardant coatings. Joanna Notkin, founder and head designer of Loooolo Textiles (www.Loooolo.ca), a sustainable textile and home décor company based in Toronto, says it's important to ask the right questions and to recognize that there are many degrees of eco-friendliness. "There's a scale of green," she says. "Some people might have pillows that are organic cotton but ink that's not. It's not that it's bad, but you have to call it what it is."

Wool

Obviously a natural material, wool presents its own social and sustainability issues. Though usually produced without injuring sheep, the animals may graze in pesticide-ridden pastures and the wool may be dyed with high-impact, petroleum-based chemicals. Finnegan buys undyed wool from farms that use no pesticides in the pasture or chemicals in the feed.

Jamie Bainbridge, director of materials research for Nau, an outdoor clothing company with environmental ethics, says wool presents some dilemmas but is among her favorite materials. "It's challenging because you have to think about the whole lifespan of the animal and who it's being raised by—there are a lot of issues to solve," she says. Bainbridge is also concerned about chemical finishes that prevent shrinking, which are commonly used by textile makers.

Hemp

The hemp plant is naturally resistant to weeds, has a relatively short growing time (maturing in half the time of cotton) and produces strong, workable fibers for textiles and other products. However, according to an article published by the Reason Foundation (www.Reason.org), a public policy research and education organization, the process of turning woody hemp fibers into fabric is more energy-intensive than the process used for cotton.

It's difficult to fully estimate hemp's ecological and technological potential because growing it is illegal in the United States—related to the marijuana plant, industrial hemp is a different, nonhallucinogenic variety—and so selective breed-

SINA PEARSON TEXTILES

Sina Pearson Textiles employs mills in the U.S. and Europe that use low-impact dyes and support environmental research.

ECO TEXTILES

Eco Textiles' mission is "to prove it's possible to produce luxurious, sensuous fabrics in ways that are non-toxic and sustainable."

LIVE TEXTILES, INC.

Live Textiles uses organic cotton, bamboo and hemp in its traditional and contemporary interior fabrics.

NEAR SEA NATURALS

A family business in a solar-powered facility, Near Sea Naturals creates organic cotton and wool fabrics milled in the United States.



ing and high-tech fiber production has been limited. Hemp cultivation bans in the United States also mean all hemp products in this country were made from hemp shipped from abroad. China is the world's greatest exporter of hemp textiles, but they are also produced in Canada and throughout Europe, South America, Asia and the Middle East.

Recycled polyester

Made from recycled PET bottles (plastic water or soda bottles) or other post-consumer and post-industrial synthetics, recycled polyester deters waste from the landfill. Mechanically recycling polyester—chopping up water bottles, melting them down and extruding the product into yarn—is a relatively low-energy process. Chemically recycled polyester, on the other hand, requires the complex process of breaking down fibers and building them into a polymer again.

Still, there are advantages to this more complicated process, Bainbridge says. "With mechanical recycling, you can't take a piece of colored plastic and put it into the feed; you can only use clear water bottles and uncolored industrial waste," she says. "With chemical recycling, you can take a used garment, a water bottle and post-industrial waste, throw them into the hopper and remake polyester out of it. It has a very broad feedstock base—a lot of different kinds of waste can go into that. As far as we know, we can recycle chemically recycled polyester over and over, infinitely."

Recycled polyester comes with its own set of environmental challenges. Like newly manufactured polyester, it is often manufactured using antimony, a carcinogen that can end up

in textile mill wastewater if the mill doesn't employ a closed-loop system.

But PET recycling also helps keep plastic bottles out of landfills and reduces the amount of petroleum that would be used to produce new polyester fibers. Outdoor clothing manufacturer Patagonia (www.Patagonia.com), which has offered recycled polyester fleece since 1993, estimates that by 2006 its product had kept 86 million plastic bottles out of landfills. Additionally, the energy required to recycle PET into new polyester is far less than the energy required to create new polymers, and the process uses fewer land and water resources than organic cotton.

New technologies for cleaner polyester manufacturing are already being put to use, and these better polyesters can be recycled infinitely with fewer harmful byproducts. In 2001, Victor Innovatex, a textile manufacturer based in Saint-Georges, Quebec, introduced Eco-Intelligent Polyester, which is produced and dyed with environmentally safe ingredients.

Bamboo

Bamboo fabrics have gained a lot of attention in recent years, and many manufacturers have added them to their lines. Bamboo fabrics are silky to the touch, naturally antimicrobial and antifungal, and wick moisture from the body. However, many questions have arisen concerning the environmental integrity of bamboo processing, as well as the possible exploitation of the agricultural product since demand has spiked.

Needing very little water and few pesticides or fertilizers, the bamboo plant is unquestionably green. It reaches maturity

LOYALE

Loyale offers stylish biodegradable and organic clothing and donates 3 percent of profits to Green Corps.

ECO-TERRIC

Winner of many environmental achievement awards, Eco-terric home products feature organic and socially responsible materials.

ENVIROTEXTILES

EnviroTextiles offers fabrics and shirts made with sustainable hemp canvas, knits and weaves, including upholstery-weight fabrics.

OLIVEIRA TEXTILES

Run by two sisters, Oliveira Textiles come in hemp and organic cotton and are hand silk-screened using water-based dyes.

Organic cotton poplin

Striped organic cotton

Kalamkari collection

Kalamkari collection

Kalamkari collection

Hempeal® Plum

Silk, Blue Topaz

Hemp Flax Pinwheel

Shellgame, Moss

Wavelength, Ultramarine

Asymone, Red Coral

“Fashion is not something that exists only in dresses. Fashion is in the sky, in the street; fashion has to do with ideas, the way we live, what is happening.” —COCO CHANEL

CERTIFIABLE

While several eco-textile labeling systems exist internationally, the United States has no official set of standards to certify textiles. The private Global Organic Textile Standards (GOTS; www.Global-Standard.org) address environmental and social issues such as energy use, waste and toxicity of dyes or processing, and fair working conditions.

in two to five years, and bamboo “forests” help prevent soil erosion, improve soil quality and retain water in the watershed. Unfortunately, in some parts of Asia, growers are clear-cutting trees to grow bamboo on monoculture plantations, eliminating biodiversity.

Processing bamboo into fabric requires a host of chemicals to break down the woody pulp into a material for spinning yarn. More traditional bamboo processing (often referred to as “mechanical processing”) doesn’t involve as many chemicals but requires more time, energy and water, making it environmentally taxing and often cost prohibitive. Manufacturers are working to find more ecologically friendly ways of transforming the stalks into workable fibers.


Oeko-Tex provides certification for bamboo textiles that are free from harmful substances, and the Forest Stewardship Council or FSC (www.FSC.org) certifies bamboo forestry practices, so better bamboo is in the future.

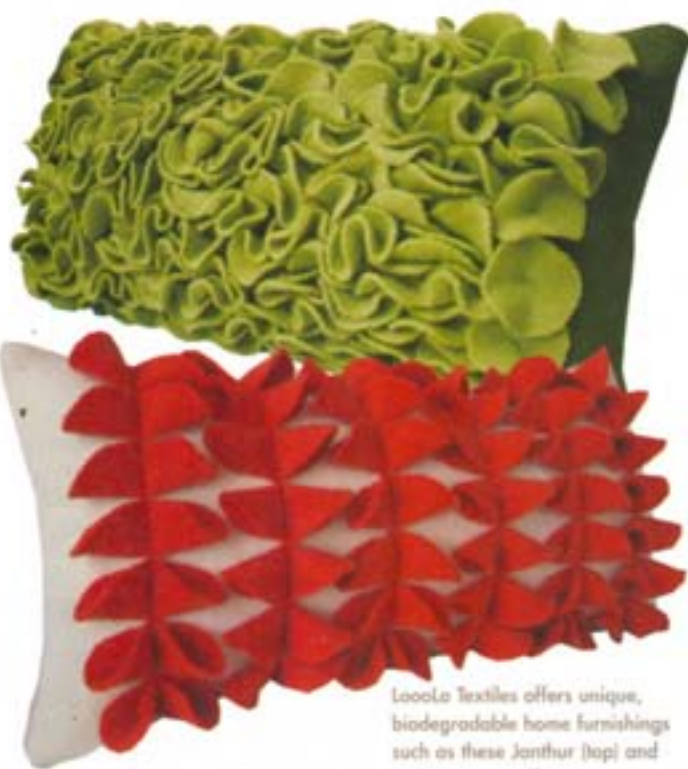
Soy

In a process similar to recycled polyester manufacturing, soy textiles are created from tofu manufacturing waste, which is then liquefied and spun into yarn. Soy fibers, sometimes called veggie silk, are soft and luxurious but often are more expensive than other eco-friendly options.

Soy fabric is a middle-of-the-road green product. On the one hand, it uses food industry waste byproducts that would otherwise be thrown out. On the other, soy farming has led to a number of environmental concerns in recent years. When soy is not organically grown, it’s often heavily treated with pesticides or grown from genetically modified seed. It can be extremely difficult to find out about working conditions where soy is grown and processed. Look for fabrics made from soy that have third-party certification.

Cellulose textiles

Textiles made from wood fibers, or cellulose, have been around a long time, going by names such as rayon, acetate, viscose, lyocell, Tencel and Legna. Various manufacturing processes, some of them more eco-friendly than others, are used to turn the wood pulp into textile fibers. And while cellulose-type textiles are basically biodegradable and many companies claim the forests are sustainably managed, few manufacturers have obtained third-party certifications through recognized agencies such as the FSC or Oeko-Tex. 



LooLo Textiles offers unique, biodegradable home furnishings such as these Janthur (top) and La Rue accent pillows.

GO AU NATUREL!

Check labels and ask manufacturers and retailers about various chemical treatments such as flame retardants or finishes that provide shrink or stain resistance. While these finishes are conveniences, keep in mind that you will be breathing in that host of chemicals every day—a health risk worse than the risk of stains on the sofa.



WWW.NATURALHOMEMAGAZINE.COM

Find a listing of sustainable textiles companies in the Resource Guide on page 80.