



# Green Inside and Out

## WHAT YOU NEED TO KNOW ABOUT CLOTHING AND HOW TO GREEN YOUR WARDROBE

The clothing industry is the second most polluting industry after oil. Much clothing involves the use of chemicals either in the fabric production itself, or in the dyes and finishes.

- Polyester is a synthetic plastic polymer typically derived from oil.
- Chemicals are used with both synthetic and natural fibers to remove oils, break down cellulose, add color, or to make them stain-proof. Carcinogenic aromatic amines are used in azo dyes.
- Some clothing is treated post- production to make it less prone to wrinkling (usually this involves the carcinogen formaldehyde), for waterproofing (using flouropolymers), or flame-retardants.
- Some of the chemicals used include heavy metals like copper, cobalt, and chromium (a carcinogen), especially in the tanning of leather.
- Clothing production requires significant quantities of water and energy, and produces substantial amounts of effluent.

### Steps to a Green Wardrobe

- 1) Decide if you really need it.
- 2) Determine if what you need could be found at a thrift store, consignment shop, or sources such as e-Bay and Etsy.
- 3) When you need new clothing, seek fabrics that have the least environmental impact, as described below. Also check in what country it was made.
- 4) Launder clothing using eco-friendly methods such as fragrance-free, bio-based detergents in cooler water to save energy. Use green dry cleaners. Most of a garment's environmental impact is from laundering.
- 5) Instead of tossing salvageable clothing, mend or repair it.
- 6) Donate clothing in good condition back to a thrift store so it can be re-used. According to the EPA Office of Solid Waste, Americans throw away more than 68lbs of clothing & textiles per person per year.

### Fabrics to Look for When Shopping

**There are many alternatives when it comes to choosing “greener” and more eco-friendly fabrics.**

#### Organic cotton

More than 25% of the world's pesticides are used in conventional cotton production. Organic cotton is grown without toxic, synthetic chemical inputs. Look for natural dyes or colored cotton to further reduce the amount of chemicals dumped into our ecosystem.

#### Industrial hemp

Hemp is rapidly renewable, requires little or no pesticides, grows without fertilizer, requires minimum attention, doesn't deplete soil nutrients and is easy to harvest.

#### Bamboo

Bamboo is a hardy, highly renewable grass and is generally grown with few chemical inputs. The fabric also has natural antibacterial properties, breathes and is biodegradable. However, toxic chemicals may be used to turn the plant into fabric.

#### Lyocell

(Name brand, Tencel) is made from natural cellulose wood pulp and is fully biodegradable. It uses Forest Stewardship Council-certified wood pulp and less-toxic chemicals in a closed-loop process.



### Recycled polyester

This fiber is made from cast-off polyester fabric and soda bottles, resulting in a carbon footprint that is 75 percent lower than virgin polyester. Recycled polyester can contain toxic antimony, but some companies are working on removing it from their fabrics.

### Linen

True linen is made from flax, a crop that requires very little pest-controlling chemicals.

### Peace Silk

Silk is natural because it's made by silk worms, but to get at the silk fibers, the live silk worms are thrown in a vat of boiling water. If that seems cruel to you, look for peace silk or vegan silk made from the worm casings gathered only after the moths have emerged.

### Ingeo

This is a new fabric made from fermented sugars derived from corn. Making Ingeo requires almost half as much energy as it does to make cotton. However, conventionally grown corn uses a lot of pesticides & water, and may be genetically modified.

### Soy cashmere

This fabric is made from soy protein fiber left over after processing soybeans into food. However, the soy may be genetically engineered unless noted on the label.

### Furniture & Bedding

- Look for organic cotton, hemp, and bamboo bath towels and bed sheets
- Look for natural mattresses made without toxic flame retardants (polybrominated diphenyl-ethers- PBDEs).

## Actions Towards a Sustainable Clothing Industry

There are many organizations working to move the clothing industry in the right direction

- The Global Organic Textile Standard (GOTS) was developed by a Britain-based organization to verify organic claims for fabrics
- Textile Exchange is a Texas based organization that holds an annual international sustainable textile conference, and advocates for industry integrity. They created specific standards for "Organic", "Recycled" and "Responsible Down" labels
- Sustainable Apparel Coalition is a broad coalition of global companies seeking adoption of the Higg Index, a measurement tool used to evaluate the environmental and social performance of apparel and footwear

### Resources:

Clean Clothes Campaign [www.cleanclothes.org](http://www.cleanclothes.org)

Ecofashion blogs: [Ecouterre.com](http://Ecouterre.com) and [Ecofashionworld.com](http://Ecofashionworld.com)

Look for the Fair Trade Certified logo



Each of us makes an impact by what we buy. If you don't like a company's practices, speak up.

Consumer pressure makes a difference!

## Where to find Eco-friendly fabric clothing

- Many small boutiques, especially in NYC, such as Reformation ([thereformation.com](http://thereformation.com)) and Kaight
- Online—search on key words; multiple online retailers
- High End: Eileen Fisher; highly committed to sustainability
- Patagonia
- Thrift/consignment shops
- Several mainstream retailers including: H&M Conscious Collection (organic cotton, lyocell, recycled polyester), and occasionally at big box stores though these may be made in sweatshop conditions
- See the book "The Green Wardrobe Guide" for more resources!



[GreenInsideandOut.org](http://GreenInsideandOut.org)