

Not All Natural Fibers Are Created Equal: The Truth about Viscose Rayon

As the earth matures and we come to grips with humanity's role in the degradation of the environment in multiple forms of pollution and the overarching condition of climate change, it's important that we make the right choices as individuals and companies with regard to the products we use and the effects they have on the environment.

Product choices we make for sustainability should include the clothes we wear, which are predominantly made from cotton, an all-natural product; polyester, a man-made fiber, and viscose, the subject of this article. We can safely assume that natural products have a lower negative impact on the environment than man-made products, but they are certainly not equal; furthermore, not all products perceived to be natural actually are.

Let's take a look at viscose, and why it shouldn't be considered a fabric choice that's also pro-environment.

Trees, Not Plants—Think about That

Cotton farmers produce new plants that yield fresh cotton acreage every single year—cotton cellulose takes five to six months to produce. While any type of farming activity taxes the environment, cotton plants are much better for the planet than their viscose rayon counterparts. Here's why: viscose rayon comes from trees.

While trees can certainly be replanted, it takes years ([pine](#)

[trees, for example, have a harvest age range of 25-35 years](#)) to replace those harvested for the wood pulp that becomes viscose rayon fiber. Harvesting trees destroys animal habitats, changes ecosystems, and depletes oxygen levels. [Nearly 30 percent of the rayon and viscose used by the fashion industry comes from ancient and endangered forests](#) that will take decades to replenish or even fail to regenerate in some cases.

Large-scale deforestation from the demand for viscose is chilling. [Indonesia alone has lost 15 million hectares of forest in the last dozen years, while forest ecosystems in the USA, Canada, Brazil, and South Africa are under severe threat as well.](#) The Amazon rainforest, largely situated in Brazil, [has lost nearly 300,000 square miles of trees over the last fifty years](#), and viscose production has been a large part of the problem.

A Dirty Process

The process of transforming wood pulp into fiber doesn't hold up well to scrutiny with regard to sustainability. In fact, it's a dirty process.

In the production chain, [trees go through a chemical process](#) to remove everything but the cellulose that will become viscose fiber.

The wood pulp is [treated with sodium hydroxide \(caustic soda\) and carbon disulphide](#), which is then filtered and spun into filaments (viscose). This process releases toxic chemicals into the air and waterways surrounding viscose plants are also at risk for pollution.

Carbon disulphide has been linked to [higher levels of coronary heart disease, birth defects, skin conditions and cancer](#) in

textile workers and also in those who live near viscose factories. In this chemically-intensive, polluting process of converting pulp to fiber, only 30 percent of the tree is usable. [often wastes 70 percent of the tree, according to fashion industry watchdog Canopy.](#)

What's the Answer?

While viscose rayon as a product may have natural origins, it's pretty safe to say that it's not environmentally-friendly, nor is it a particularly safe product for both environmental and health reasons. The chemically-intensive, highly-polluting processes necessary to take wood pulp from trees, extract cellulose, and create workable fiber are simply too dirty to be considered good for either people or the planet.

While viscose rayon certainly represents the one of the least expensive paths for creating a natural fiber for apparel, many manufacturers are concluding that the true price is too costly to the environment and human health. Thankfully, there are alternatives.

Many manufacturers have looked to the many varieties of cotton to achieve their goals for design and comfort, finding a product whose farming and manufacturing communities are steadfastly devoted to ever-improving standards of environmental sustainability, [including life cycle assessments that look at cotton's sustainability from a cradle-to-grave perspective.](#)

But there are many who still want to achieve the same goals for fabrics, in terms of color, texture, and other aspects that can only be achieved with rayon. These manufacturers are eschewing hardwood wood pulp, from sources like pine, for more sustainable options like bamboo. [Still others are turning to](#)

[Tencel](#), a particular brand of rayon taken from fast-growing eucalyptus where far less of each tree is wasted in a process that uses a non-toxic spinning solvent to create the fibers.

Conclusion

Today's consumers are smart and understand the difference between a truly **natural** fiber versus one that has been chemically transformed from a natural raw material into a cellulosic fiber. When people know the truth, they make better decisions. As more people discover the truth about viscose rayon, they will see why many are making the switch to cotton – a **real natural alternative**.