

Know Your Fibers: Cotton vs. Bamboo Viscose

The goal of our [Know Your Fibers series](#) is to provide info about different types of fibers for our readers. This quarter, we'll take a look at how bamboo viscose compares to cotton.

Bamboo reaches great heights, but mostly in China and Taiwan.

Believe it or not, bamboo is the largest member of the grass family and can grow up to 115 feet tall. Bamboo is one of the fastest growing woody plants, with one species growing an average of 3.3 feet a day.

While there are over 1600 varieties grown from cold mountains to hot tropical regions, the bamboo species grown for producing textile/nonwoven fibers is called Moso bamboo, which is native to China and Taiwan. Of course, this means it's not [locally sourced like cotton](#) is across the southern region of the United States.

Though naturally renewable, there are wide gaps between harvests.

Once a shoot emerges from the ground it reaches its full height in eight to 10 weeks, and since bamboo is a grass it can be continually re-harvested without replanting. After maturing over three to five years it is ready to be harvested. However, when bamboo is harvested too soon it is not completely lignified (strengthened). Harvest it too late, and the bamboo starts to deteriorate, which makes it resistant to the process that converts it into fibers.

In many ways, bamboo is similar to your lawn: you cut it, and it grows right back. Natural renewability like this is always a positive. However, bamboo's three- to five-year [maturity period](#) can't touch cotton's eight- to nine-month renewable life cycle, and there's less questioning when it comes to harvesting time.

Can you process bamboo fiber naturally?

Bamboo can be processed into fiber via two methods. One method uses a more natural way of processing. The bamboo is crushed mechanically and the retting process uses a natural enzyme to break down the cell walls so the fiber can be extracted.

Though natural, this method is time-consuming and expensive. Most fiber produced by this method is used to produce traditional textile fabrics. Bamboo fiber processed by this method also leaves the antimicrobial properties in the fiber.

However, is bamboo viscose processed naturally?

The second method—which is used to produce most (if not all) bamboo viscose fiber for the nonwoven market—is basically the viscose method, with bamboo replacing trees as the cellulosic feed stock. In other words, the viscose bamboo fiber is the same as [viscose rayon fiber](#).

This process removes the antibacterial properties and the natural “micro-pores” in the fiber structure of the natural bamboo fiber. It's also important to note that while the [Lyocell process](#) (a more environmentally friendly process) can be used for processing bamboo, it is not being used very much at this time. As noted before, cotton has a straightforward [step-by-step process](#) that keeps its natural properties intact.

To learn more about the differences between cotton and bamboo, visit our [Cotton Processing](#) page.

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Let's take a trip throughout history to learn about 8 cotton innovations that have made a significant impact. You'll discover how those lessons can help enhance your next innovation.

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