

Difference Between Biodegradable and Compostable

You've probably heard of people having composting bins in their backyard but why don't people have biodegradable bins, too? Even though the words *compostable* and *biodegradable* seem very similar and some people use them interchangeably in conversation, there's a key difference between the terms.

What Does Biodegradable Mean?

This term refers to the ability of a material to be broken down into natural elements by way of [biological processes](#). If a material originates from animal or plant sources, it is able to be broken down by things like [microorganisms including bacteria, fungi, microbes, and algae](#), [exposure to high temperatures, flowing water, or even just contact with oxygen](#). Things like food scraps, paper waste, manure, egg shells, cardboard boxes, and dead plants can be considered biodegradable because they will quickly break down into their simplest parts once exposed to the elements. One can even argue that plastic is biodegradable because although it can take many centuries, plastic will eventually break down into carbon, water, and other basic elements. However, according to the FTC (Federal Trade Commission) an item must fully decompose within [one year](#) to be considered legally biodegradable.

What Does Compostable Mean?

The terms biodegradable and compostable are easily confused but the easiest way to think about it is that [biodegradable is an umbrella term](#) and *compostable* is a more specific term beneath it. Like biodegradable materials, compostable materials have the ability to be broken down into simple elements by way of biological processes but unlike biodegradable materials, compostable materials always break down into non-harmful elements. Sometimes when biodegradable materials start breaking down, they start producing materials that are harmful to the environment. For instance, biodegradable waste can create a surplus of certain microbial flora which [can throw off the balance of an ecosystem](#). Additionally, too much biodegradable waste in a body of water [can deplete the water's oxygen](#) supply which can result in the marine life being harmed or even killed.

On the other hand, an overabundance of compostable waste [will always be positive for the environment](#). Once faced with the elements, fully compostable materials will transform into a nutrient rich, dark brown material referred to as [humus](#). Humus can be mixed with your garden's soil to add vital nutrients, moisture, and healthy organic material that can help plants grow taller, stronger and healthier. It can also improve the pH and structure of the soil, which is always a plus.

Biodegradable and Compostable: Why Cotton Is King for the Environment

Both biodegradable and compostable products are good for the environment. Nonwoven products such as wipes, diapers, tampons, pads and liners made with cotton will also be biodegradable and compostable. While the speed at which cotton degrades depends on the environmental conditions (amount of oxygen, water, temperature, pH, etc.) and construction of the fabric (weight, how tightly the fibers are packed together, etc.), at least we know it will degrade over time, and not remain in the waste stream.

And the fact that cotton products are biodegradable and compostable really matters in the industries we serve, like feminine care, baby care, hygiene, adult incontinence, and beauty. Consumer advocacy has transcended traditional sustainability and general notions of what's good for the planet. It's beyond trendy and now a matter of conscience and personal preference.

People now are much more mindful about what they put on their bodies, especially with beauty, hygiene, and care products. These products must perform, be good for the environment, and be healthy and safe. While the world may have paused to focus on the COVID-19 pandemic, our need for sustainable solutions will no doubt continue. Regulatory bodies continue to demand advancements in sustainability. For example, both the European Union and the state of California have recently pushed directives on single-use plastic products, which could have a profound effect on the sectors we serve, particularly with regard to use reduction and outright banning of manmade fibers.

Products that are safe and sustainable, from a cradle-to-grave (and even the next "cradle," or reuse) life cycle assessment will be the products that win. It's now more important than ever that brands and product developers look for innovative materials that will ensure that single-use products, like wipes and pads, are more sustainable.

To illustrate the impact of cotton fiber's environmental impact, industry trade group [Cotton Incorporated has funded extensive research](#) that benchmarks types of nonwoven cotton products (virgin, purified, etc) and their manmade counterparts with regard to biodegradability in soil and water (since many of these products end up in both landfills and sewer systems). Purified cotton, our core product at Barnhardt, consistently biodegrades between 95-100 percent, while other cotton varieties deliver respectable results. Manmades like polyester, as you can imagine, biodegrade at levels typically less than 25 percent.

Barnhardt and other suppliers in the cotton products arena, especially in our area of nonwovens, will continue to push innovation in sustainability for our environment and the health and safety of consumers, without ever sacrificing product performance.