

Why bioplastics are the better alternative to conventional plastic products for single use disposables

BioPak wholeheartedly agrees that if you want to be truly sustainable, don't use single use disposable items, simply bring your own.

However one should recognize that it's not always convenient or practical to bring one's own food service packaging and it's in these situations that single use food service disposables are the best solution. They provide a hygienic and cost effective way to serve food and beverages to a large number of people.

Independent from the end-of-life disposal option of the product, if given a choice to purchase a single use disposable product made from limited fossil resources or one made from abundant rapidly renewable resources, we would suggest one made from renewables is the better choice.

Bioplastics are plastics made from organic resources such as sugarcane, algae or plant starch, in fact all that is required is a suitable source of carbohydrates. Bioplastics may be composted or recycled with the exact same properties as conventional plastics.

It can be quite a confusing landscape for the general public to navigate with various claims and technical terms, one should always be on the lookout for unscrupulous marketers attempting to greenwash their products and fool the public into believing that they are better for the environment.

The most common type of greenwashing relating to plastic products are items that are labelled as 'degradable' or 'biodegradable'.

Unlike bioplastics, degradable plastics are conventional plastics derived from fossil resources with an additive that causes the plastic to fragment. Marketers state that they conform to specific test guidelines in an attempt to legitimize their claims. However mentioning that they have been tested in accordance with a specific test method that contains no pass or fail criteria in no way verifies that the product is biodegradable.

The main problem with these products is that there is no conclusive proof that the microscopic plastic fragments completely biodegrade. We now have the situation where these fragments could be ingested by microorganisms and eventually make their way up the food chain. It does not address the problem of using fossil resources for single use packaging and is certainly not a solution to polluting the environment. All they do is offer consumers and brand owners a false sense of sustainability.

This technology and associated claims have been challenged and the products have been banned in many countries around the world. You will see many examples of these products including plastic wrap used to cover magazines, checkout bags and coffee cups and lids. They all have one thing in common apart from the fact that they degradable, they all make the absolute claim '100% degradable' and I guess if you didn't know any better and believed everything you read, you would feel like you were making a good choice.

Of course what happens to a product at the end of its life is important but just as important if not more so are the resources required throughout the entire lifecycle of a product.

With a global population of 7 billion and increasing, it is no longer sustainable to perpetuate the concept of producing products using a linear approach of extracting non-renewable fossil resources in order to produce a material that will be used only once before being downcycled or disposed of in a landfill. Instead we should take our cues from nature and look to create products using a closed loop approach choosing renewable biological resources that at the end of their useful life rapidly biodegrade and return nutrients back into the system.

In future bioplastics will be made from non-agricultural feedstock and there are already a number of innovative bioplastics made from abundant organic 'waste' streams including sewage, blood and algae to name a few.

Bioplastic technology is still in its infancy and certainly not perfect but we should not let perfect be the enemy of good. By supporting these technologies now, we are able to evolve and continue our journey towards producing packaging that is truly sustainable.