LAVERGNE

Talking about Biodegradable Plastics

The plastics industry continues evolving and developing innovative ways to stop post-consumer plastics from polluting lands or flowing into oceans.

In 2016, the World Economic Forum made a dire prediction, that by 2050 our oceans could have more plastic than fish! We must prevent this situation.

Many industry leaders are already working hard to divert those ocean-bound plastics by perfecting Closed Loop systems. At the same time, some companies are developing environmentally-friendly alternatives to traditional plastics in the form of biodegradable plastics made from plants instead of fossil fuels.

Biodegradable Plastics — Composting and Biodegrading

While traditional plastics could remain solid for hundreds of years and end up polluting lands or oceans, biodegradable plastics are meant to be broken down by microbes, chewed up and turned into biomass, water and carbon dioxide or methane.

The term "biodegradable plastics" covers a range of products. Most are designed to "biodegrade," while a small number are "compostable plastics" designed for "composting." There's a difference. Composting happens in aerobic environments where oxygen accelerates the natural decomposition of biologically-based polymers. Biodegrading happens in anaerobic environments, where plastics made of biologically degradable polymers require a recycling process with anaerobic digesters to break down material.

No matter how the biodegradable plastic is created or broken down, they're meant to reduce global warming as their decomposition releases fewer greenhouse gases like carbon dioxide and methane.

Biodegradable Plastics are Not Perfect

A 2020 CBC article confirms that, as biodegradable plastics decompose, they will definitely produce lower levels of carbon dioxide. However, the article cautions that those reduced levels of greenhouse gas may not be as significant as expected. It also reminds the reader that the energy used to grow those crops, then transport and distribute them, may actually contribute to more gases.

It all points to a hard fact — biodegradable plastics are not perfect. Biodegradable plastics either:

- Require special industrial equipment and a highly-controlled environment to decompose
- Take many years to fully decompose in a home compost
- Don't decompose completely

We're a long way from throwing plastics in the household compost pile for them to decompose. In Canada, some municipalities prohibit households from disposing biodegradable plastics in their recycling or organic bins, noting that the products are too widely varied in their ability to biodegrade.

Further Work and Lavergne's Closed Loop

Biodegradable plastics have the potential to help our goals of diverting ocean-bound plastics and creating a healthier environment. However, the technology is still in its early stages, and we need some greater advances to realize its full potential.

Lavergne is committed to providing the industry 100% post-consumer recycled plastics. While biodegradable plastics have potential, Lavergne's high-quality selected recycled resins are a proven successful replacement to virgin plastics. In many ways, our recycled materials are superior to their

8800, 1er Croissant, Montréal, QC, Canada H1J 1C8 T : +1.514.354.5757 F : +1.514.354.3087 lavergne.ca

virgin counterparts. Lavergne resins help the industry make significant progress in reducing waste, conserving energy and diverting ocean-bound plastics.

For Lavergne, sustainability should not come at the cost of quality and performance.

Stay tuned to Lavergne's Newsroom to learn about technology and trends in the plastics industry.