

Why we should eliminate the “B word” from sustainability conversations

By Adam Gendell in **Sustainable Packaging**

At first blush, it certainly sounds like a good word, a warm and fuzzy word. A word that surely belongs hand-in-hand with the many R words we use in sustainability conversations. It's a word that conveys a sense of closing nature's loop and returning materials right back into the bosom of mother earth. But the B word—"biodegradable"—has no place in modern sustainability conversations. It's outdated. Maybe it used to be the holy grail of the quest to make materials more sustainable, but we've gotten smarter. We've learned. It's now time for our lexicon to reflect how much we know, and it's time for us to use our modern understanding of sustainability to have meaningful conversations—conversations that don't include yesterday's buzzwords. So, thanks, B word, we've learned a lot from talking about you, but it's time for us to part ways.

The problem with the B word? Its connotation that it's always a good thing and never a bad thing. Truth be told, it's not necessarily either. Sometimes it can lend positivity to a sustainability profile, while sometimes it can be a detractor. It's like if we were to automatically assume superior sustainability for square packages, or transparent packages, or purple packages. Biodegradability is an arbitrary quality that needs to be expanded and explained, not simply touted. First question when you hear the B word: Where is it likely to biodegrade? In a home composting operation? In an industrial composting operation? On the side of the interstate? In a landfill? It's the same as assessing real estate: location, location, location. Packaging producers can't know where their packaging is going to end up, so if we're going to assess what the B word means for a package's sustain-

ability, we have to assess each and every likely scenario.

No matter what we do, a lot of packaging will end up in a landfill where it's unlikely that biodegradability will do it any good. In the oxygen-deprived enclosure of a landfill, things biodegrade anaerobically, which essentially is a big word meaning they generate a lot of methane as they decompose. Methane, you may have heard, is an extra-potent greenhouse gas. Landfills are the third biggest source of manmade methane emissions to the atmosphere. If trash didn't have that pesky quality of biodegradability, landfills would be a bit more benign.

As litter on the side of the interstate? That's a bit trickier. I doubt anyone can argue that we'd be better off if litter didn't biodegrade, but there's a lot of complexity in judging the answer. Do we want consumers to think that a package is litter-friendly? I would argue that every package needs clear instructions to tell a consumer what they need to do to send a package to its best possible end-of-life scenario. Touting the B word on-package doesn't do that. Then of course there's the issue of time. If something takes 10 years to biodegrade on the side of the interstate (or say, in the ocean), that's a lot of time for damage to be done. Once again, just using the B word doesn't tell us the whole story.

Then there's composting, where biodegradation time can spell the difference between beneficial recovery and more-harm-than-good contamination. A host of other factors (potential plant toxicity of any additives in a package, for instance), matter when it comes to composting. And biodegradability, in its general sense, tells us nothing about whether a package fits in a composting operation.

The concept of compostability is con-

stantly becoming better defined and it's this C word, not the B word, that tells us if a package has the potential for a beneficial end-of-life scenario involving its decomposition. So yes, a package can be biodegradable and not compostable. A biodegradable package can even detract from the success of a composting operation. Once more, the B word really doesn't tell the whole story.

A sub-topic that rightfully deserves its own article is the idea that we should ever put biodegradability additives in petroleum-based plastics. If you've read this far, you probably get it without me going into detail. But suffice it to say that the carbon in petroleum-based plastics was sequestered from the atmosphere millions of years ago and it makes the most sense to keep that carbon bound up in a useful material. If we allow those plastics to biodegrade, we release their carbon content into the atmosphere and we also send the wrong signal to the recyclers who offer the best chance for a sustainable usage of petroleum-based plastics. It's just another example, though perhaps counterintuitive, where a material is much more useful to us and has a greater potential for sustainability when it doesn't biodegrade.

Again, though, this isn't to say that biodegradability is automatically bad. For many materials, it can be good. But if it's good, we should be able to talk about its compostability and use the word that actually carries meaning. If not, you can be hip, be informed, be smart, be modern—and keep the B word out of the sustainability conversation.

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