

# THE ROAD TO REGENERATIVE PACKAGING



ONE  
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## LAYING THE GROUNDWORK

If you immediately rolled your eyes after seeing the word “regenerative” in the headline - bear with us. This story of regeneration is likely different from the one you're used to. We know the term regenerative is thrown around a lot these days. This case study isn't another op-ed on the pros and cons of regenerative farming - on the contrary. Here, we contemplate the role that packaging, particularly the kind that's encased around our foods and beverages, can play in restoring our earth and its resources to a state of equilibrium.

Nearly all climate-related issues share the same challenge: the ‘solutions’ are imperfect and unfixed; they take a little trial and error, R&D, and TLC, often coupled with the realization that one fix doesn't solve every single problem. Packaging is no different. Many CPG brands and businesses are weary of making changes to their packaging when they know they don't have a complete solution. “We need to overcome that thinking in packaging because it's the pursuit of perfect at the expense of progress,” says Jane Franch, VP of Strategic Sourcing and Sustainability at Numi Organic Tea, in a conversation with [HowGood](#). “One of the design thinking traps people fall into with packaging is the sense that ‘Well, the solution I want doesn't exist and this solution is imperfect and therefore we're not actually going to change anything.’”(1) It's important for brands to grasp that no effort is too miniscule - no attempt is in vain - as long as it's headed in the right direction. In today's environment there are very few CPG brands that epitomize this belief, and Numi Tea is one of them.



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1. McDonough, Kate. “How CPGs Can Help Restore Our Earth.” [HowGood](#), HowGood, 22 Apr. 2021, [blog.howgood.com/home/2021/4/22/how-cpgs-can-help-restore-our-earth](#).

## SMALL BUT MIGHT-TEA

Numi Tea's quest to conquer compostable packaging didn't exactly happen overnight. After nearly a decade of trial and exploration, Numi Tea, in partnership with [Elk Packaging](#) and [One Step Closer](#), managed to create a compostable overwrap for their individual tea bags. Although they're small in size, these innovative tea wrappers supplant the use of 14.3 metric tonnes (approximately 32,000 lbs) of virgin plastic per year and emit 67% lower greenhouse gas emissions.<sup>(2)</sup> Another less-understood but equally impressive aspect of the overwrap is that it meets the ASTM D6868 standard as commercially compostable, which makes it the very first of its kind. *\*See the glossary below for more details on ASTM D6868.* The product hit grocery store shelves and e-commerce sites at the beginning of 2020, and has since made headlines across the CPG and packaging industries for its planet-friendly innovation, winning the [Flexible Packaging Achievement Silver Award for Sustainability](#) in 2021.

According to [an article released by Packaging World](#), Numi's compostable tea bag overwrap consists of three key components: an "adhesive lamination" made of a paper, cellophane and polylactic acid (PLA).<sup>(3)</sup> The FSC-certified paper surface is covered with a proprietary coating in order to "protect the ink and deliver the right coefficient of friction (COF) required by the high-speed wrapping machinery." In other words, both the paper and ink are fully protected during the manufacturing process. The cellophane, a clear film made from renewable wood pulp, comes from [Futamura's Natureflex](#) product line. Lastly there's the PLA, which is a topic of debate in the world of compostable packaging, and for good reason.

## THE DIRTY DETAILS OF CLEAN PACKAGING

For those who may be unfamiliar, PLA is a plastic alternative made from plants as opposed to its conventional counterparts which are made from petroleum-based inputs. While PLA is biodegradable, the rate at which it degrades is excruciatingly slow - unless it is contained in the proper environment (i.e. a temperature-controlled industrial composting facility).<sup>(4)</sup>

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2. Stanford Graduate Student project, LCA for Complex Systems, [numitea.com/plant-based-wrappers/](https://numitea.com/plant-based-wrappers/)

3. Reynolds, Pat. "Compostable Overwrap for Tea Bags." [Packaging World](https://www.packworld.com/issues/sustainability/article/21140832/compostable-overflow-for-tea-bags#next-slide), 4 Aug. 2020, [www.packworld.com/issues/sustainability/article/21140832/compostable-overflow-for-tea-bags#next-slide](https://www.packworld.com/issues/sustainability/article/21140832/compostable-overflow-for-tea-bags#next-slide)

4. Ncube, Lindano Koketso, et al. "Environmental Impact of Food Packaging Materials: a Review of Contemporary Development From Conventional Plastics to Polylactic Acid Based Materials." *Materials*, vol. 13, 2020, doi:10.3390/ma13214994

In the US, PLA is traditionally made from GMO corn. This means that most of the PLA on the market is inaccessible to CPG companies who only sell organic and non-GMO products, like Numi Tea. Numi's PLA is a product of PSi's EarthFirst films, sourced from non-GMO sugar cane that is Bonsucro-certified, making it both responsibly sourced and ethically grown. If you consider packaging as the “final ingredient” in your product, as Jeanne Cloutier of Elk Packaging does, it's easy to understand why brands can't cut corners around responsible sourcing practices simply to meet the growing demands for eco-friendly packaging.(5) Numi's commitment to their planetary ethos is one reason their packaging journey took as long as it did. In the CPG world, we see so much mindfulness around ingredients; it's time for us to think about packaging with the same thoughtfulness in which we think about our ingredients. When you look at a product as a whole instead of in parts, you realize that packaging can in fact be a solution for regeneration.



Photo credit: Numi Tea Plant Based Wrappers

Another common barrier to adopting regenerative packaging is the projected increase in costs. Early on in their packaging adventure, Numi Tea was forewarned that switching to compostable packaging would cost them twice as much as they were currently paying. But after tweaking their manufacturing processes, Numi managed to increase overall packaging costs by just 35% - which is a pretty feat if you had originally projected a 200% jump.(6) Franch says, “if you start at the beginning and you look at the price and you say, ‘wow, there’s no way,’ without really going down the innovation road along with your supplier partners, you’ll never make any progress.”(7) Numi's venture should serve as consolation to businesses who are hesitant to make changes to their packaging due to increased costs.

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5. Kurzrock, Daniel. “Why You Should Be Optimistic about Compostable Packaging.” New Hope Network, 30 Apr. 2019, [www.newhope.com/products-and-trends/why-you-should-be-optimistic-about-compostable-packaging](http://www.newhope.com/products-and-trends/why-you-should-be-optimistic-about-compostable-packaging).

6, 7. Stanford Graduate Student project, LCA for Complex Systems, [numitea.com/plant-based-wrappers/](http://numitea.com/plant-based-wrappers/)

The elephant in the room, though, is downstream infrastructure. Creating a compostable overwrap is a great first step, but how would Numi ensure that their eco-friendly tea wrappers stay out of the solid waste stream? They've done their part to educate consumers, but for composting to be successful at scale, it requires specialized infrastructure and readily accessible composting facilities. As of today, though, these facilities are not widespread.

According to a recent study conducted by the US. Public Interest Research Group, “there are more than 19,000 towns and cities in the US, but only 326 offer curbside food waste collection.”<sup>(8)</sup> According to Numi Tea's website, only around 5% of US households have access to commercial composting.<sup>(9)</sup> However, there's been a noticeable upward trend as of late. The US Public Interest Research Group report notes that “the number of communities offering composting programs has increased by 65% in the past five years.”<sup>(10)</sup>

## WRAPPING IT UP

The final step on Numi's packaging journey was achieving the ASTM D6868 compostability standard, developed by BPI as a way to establish and legitimize compostable labeling requirements. Early on, Numi discovered that their “plant-based tea wrapper” message really resonated with consumers. So, while awaiting third party certification, they implemented those exact words with an accompanying logo on their folding carton, where it remains today. By creating thought-provoking messages about plant-based packaging as a solution to the plastic crisis, they were able to educate and engage social media audiences on the impact of their purchases. This combination of purpose-led brand strategy and marketing continues to inspire responsible consumer activation today. The plant-based initiative has received an outpour of support and encouragement from those who congratulate them on avoiding plastic, standing up for climate action, and supporting compost systems.

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8. Kachook, Olga. “Additional Capacity and Legislation Will Help Existing Composting Facilities Succeed.” SPC, 21 May 2020, [sustainablepackaging.org/additional-capacity-legislation-will-help-existing-composting-facilities-succeed/](https://sustainablepackaging.org/additional-capacity-legislation-will-help-existing-composting-facilities-succeed/)

9. “Plant-Based Compostable Tea Wrappers.” Numi Organic Tea, 13 May 2021, [numitea.com/plant-based-wrappers/](https://numitea.com/plant-based-wrappers/)

10. Kurzrock, Daniel. “Why You Should Be Optimistic about Compostable Packaging.” New Hope Network, 30 Apr. 2019, [www.newhope.com/products-and-trends/why-you-should-be-optimistic-about-compostable-packaging](https://www.newhope.com/products-and-trends/why-you-should-be-optimistic-about-compostable-packaging).



Perhaps the most encouraging feedback is the acknowledgement from customers that progress is what matters most of all, as a customer exclaimed, "You never stop trying to improve your business AND you make excellent teas." On occasion, they've received mixed feedback about the metalized wrapper lining, as one customer put it "in what appears to be mylar/plastic lined pouches." This confusion simply underscores the need for continued consumer education. In their next packaging iteration, Numi will give more prominent placement to the plant-based seal, which they're hoping will help ease any misunderstanding.

Ultimately, Numi Tea's vision is to "move the entire industry forward and make compostable packaging the norm." Their compostable overwraps prove the power of industry-wide collaboration and should be seen as an example of what's possible when it comes to partnerships and coalitions.

Another powerful example of collaboration in action is the Regenerative Organic Alliance, who recently launched the Regenerative Organic Certification (ROC). ROC is a revolutionary certification for food, textiles, and personal care ingredients developed by a group of farmers, business leaders, and field experts. The certification maintains the highest standards in existence when it comes to farmworker fairness, soil health and animal welfare.<sup>(11)</sup> ROC is driving a paradigm shift in how our food is produced while helping consumers make more informed purchasing decisions. It could likely become the new gold standard for purpose-driven CPG brands who are taking a more holistic look at their packaging and seeking ways to differentiate themselves. It's crucial for brands to embrace and explore all possibilities when it comes to regenerative packaging, and not let the idea of perfection prevent them from taking any action at all. The sooner companies understand and admit they're all facing the same challenges, the sooner we can pave the way to a regenerative packaging future.

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11. "Farm like the World Depends on It." Regenerative Organic Certified, 18 July 2021, [regenorganic.org/](https://regenorganic.org/).

*Is your brand or business looking to transition to sustainable packaging but doesn't quite know where to begin? Check out One Step Closer's Packaging Innovation Page for information, guidance, and insights. One Step Closer's Packaging Collaborative is a coalition of brands across the natural products industry that have come together under the common goal of achieving sustainable packaging solutions and regenerative supply chains. Interested in joining us? [Click here to learn more.](#)*

## Glossary Of Terms:

- **ASTM D6868:** This standard was created by the Biodegradable Products Institute (BPI) to "establish the requirements for labeling of materials and products, including packaging, using coatings of biodegradable plastics, as 'compostable in municipal and industrial composting facilities.'" The standard determines whether or not products will compost properly as well as maintain their value after the composting process has taken place.
- **CPG:** Consumer packaged goods.
- **FSC-Certified:** The Forest Stewardship Council (FSC) certification ensures that products come from responsibly managed forests that provide environmental, social and economic benefits.
- **PLA:** Polylactic acid is a biodegradable and recyclable plastic made from renewable feedstock, namely plants.
- **GMO:** Genetically modified organism.
- **ROC:** Regenerative organic certified. ROC is a revolutionary certification for food, textiles, and personal care ingredients developed by a group of farmers, business leaders, and field experts that maintains the highest standards in soil health, animal welfare and farmer fairness.