

IMPACTS OF INCREASED RECYCLED CONTENT IN SECONDARY PACKAGING

Guayakí's vision holds that yerba mate culture will power their Market Driven Regeneration™ business model to regenerate ecosystems and create vibrant communities. Yerba mate is a holly plant native to South America with the caffeine strength of coffee, the health benefits of tea, and the euphoria of chocolate.

Guayakí sells a wide range of products from loose leaf yerba mate and mate bags, mate gourds and bombillas (drinking apparatus) to ready-to-drink beverages made from yerba mate in a wide variety of flavors.

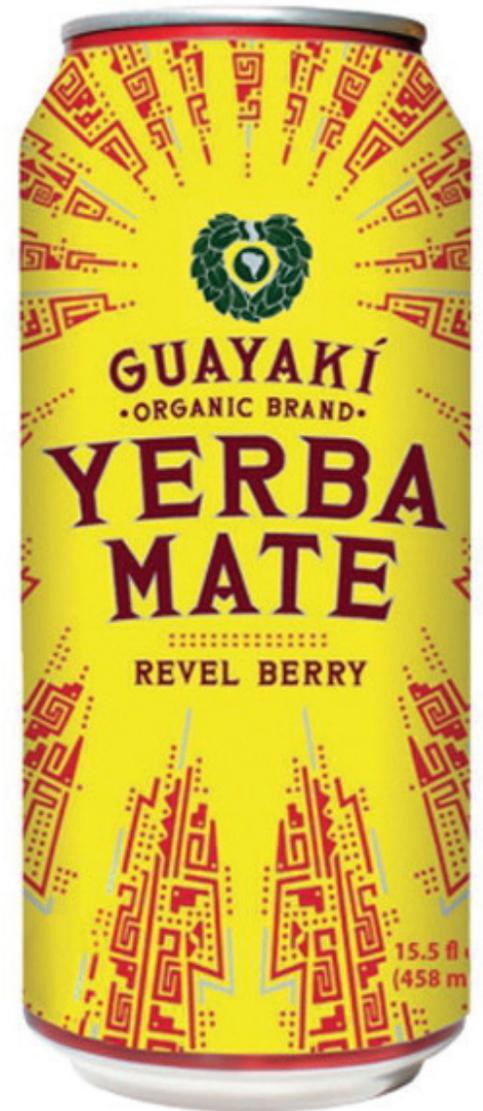
Guayakí focuses on the whole product life cycle and incorporates regeneration in each step, including their packaging. 95% of their packaging is recyclable or compostable including a home-compostable bag.

Improving Guayakí's Packaging Impact

For this study, Guayakí wanted to evaluate the environmental impact of adding more recycled content into their aluminum can secondary packaging. Specifically, they were considering increasing the post-consumer recycled (PCR) content of the corrugated tray holding 12 cans during shipping and the surrounding plastic wrap.

To quantify the environmental benefits, Gretchen Grani, Regeneration and Sustainability Cebadora, initially approached the Climate Collaborative (CC). The Climate Collaborative represents a cohort of natural products industry companies working to reverse climate change through climate action commitments in nine areas, including packaging. The Climate Collaborative has partnered with Trayak to aid companies in developing sustainable packaging choices by quickly benchmarking existing packaging and developing alternatives. The project? Conduct a Life Cycle Assessment (LCA) that compares the impacts of the original 40% recycled corrugated tray and 0% recycled polypropylene wrap versus the proposed 100% recycled corrugated tray and 50% recycled polypropylene wrap.

All three organizations worked together to collect packaging system information (materials, masses, conversion processes, etc.) and perform the analysis with Trayak's LCA tool, EcoImpact-COMPASS (Comparative Packaging Assessment).



Results by the numbers

When comparing the original secondary packaging design with the proposed changes to its recycled content, it is clear there are substantial environmental benefits.

Greenhouse Gas Emissions Reduction

Due to the reduction of virgin material use, greenhouse gas emissions could be reduced by 13% when using recycled content in the plastic wrap and the corrugated tray.

Greenhouse gas emissions could be reduced by 68.8 tons of CO₂ eq annually if recycled content is incorporated into the secondary packages.

This is the same amount of carbon that is sequestered by nearly **1,782 tree seedlings grown for 10 years!**



Fossil Fuel Consumption Reduction

The fossil fuel consumption of the secondary packaging could be reduced by 24%. If PCR content was incorporated in the secondary packages to deliver the annual volume of 36 million Guayakí cans, fossil fuel consumption would be reduced by about 1.95 million MJ—**equivalent to nearly 319 barrels of oil!**



Water Consumption Reduction

Water consumption is reduced by 13%. Incorporating the recycled content into the secondary packages required to transport 36 million cans of Yerba Mate would save nearly 5.4 million gallons of water.

The water saved is enough for **863 people to shower every day for an entire year!**



Key Takeaways

Guayakí engaged in this project because of their commitment to reduce their climate impact. They had many questions about where to begin, and what would be the most impactful packaging change with minimal supply chain disruption to their business. As a part of this engagement, different packaging change scenarios were simulated.

Ultimately, incorporating recycled content into their secondary packaging is both feasible and can provide meaningful environmental reductions. Simulating these benefits upfront using a LCA allowed Guayakí to confirm and quantify the environmental benefits before making physical packaging changes.

If you are interested in this type of engagement, please reach out to the Climate Collaborative or Trayak today!