



pet
sustainability
coalition



Life Cycle Assessment (LCA): An important tool in strategic decisions and consumer claims

In 2022, **Eco-shell** wanted to quantify the environmental footprint impact of Naturally Fresh's walnut shell cat litter compared to the industry average bentonite clay litter. Utilizing their PSC membership, Eco-shell conducted a Life Cycle Assessment (LCA) to compare the litters.

WHY PERFORM AN LCA? Companies use LCA to demonstrate transparency and corporate credibility to stakeholders and customers. LCA is also used in new product research and development, when environmental footprint is important to the future marketing or cost structure of a product.



A DEEPER DIVE INTO A LIFE CYCLE ASSESSMENT

An LCA is a science-based, comprehensive evaluation to consider the environmental footprint of a product through its entire life, from cradle to grave.



Extraction of
Raw Materials



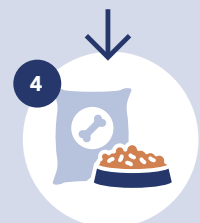
Production
& Manufacturing

ENERGY & WATER USED /
EMISSION OF POLLUTANTS



Transportation

BETWEEN EACH LIFE CYCLE PHASE



Customer Use



End Life

DECOMPOSITION IN COMPOST /
RECYCLED FOR RE-USE /
DISPOSED IN GARBAGE



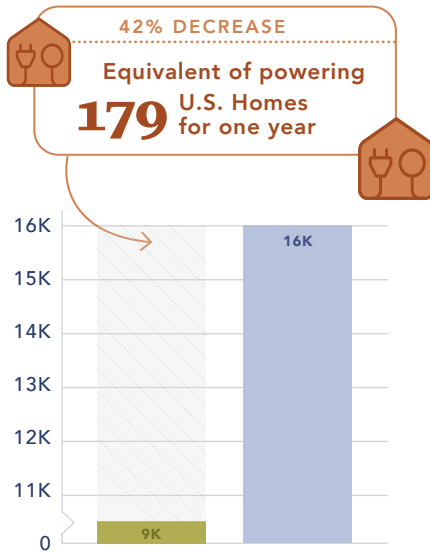
The Results of Eco-Shell's LCA

Eco-shell's LCA compared the impact of 8 different environmental factors over the entire life cycle of **1 million pounds** Naturally Fresh's walnut-based cat litter to the comparable amount of bentonite cat litter. Industry averages of environmental impact were used for the bentonite liter. The LCA showed:

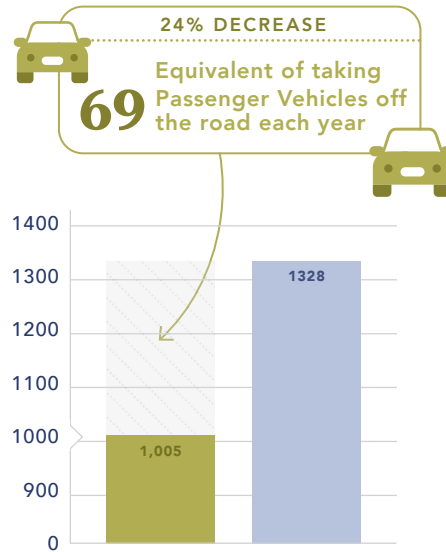
● NATURALLY FRESH CAT LITTER (CURRENT)

● TRADITIONAL BENTONITE CLAY LITTER

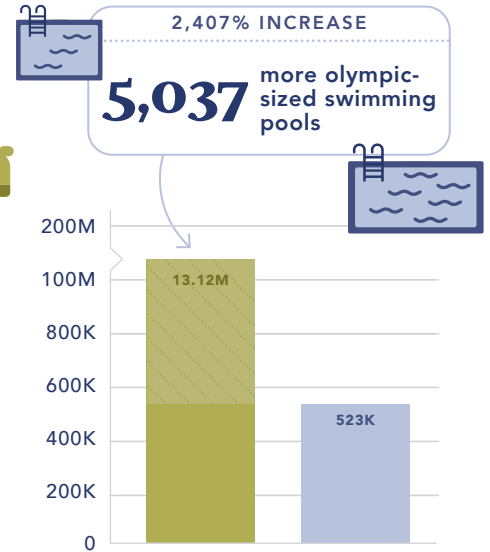
FOSSIL FUEL USE Measured in Megajoules (MJ)



GHG EMISSIONS Measured in kg CO₂ eq



WATER USE Measured in Liters



DISCOVERY..... Because walnuts are an agricultural product, Naturally Fresh uses considerably more water than the bentonite clay liter. However, environmental gains were made in 7 of the 8 environmental indicators, with **19-130% savings** in fossil fuel use, GHG emissions, freshwater ecotoxicity, mineral resource use, human impact, and freshwater eutrophication, and carbon uptake. 🌱

OTHER WINNING SOLUTIONS IDENTIFIED:

Retailers Matter!

Retailers can impact shoppers ability to purchase sustainable products/services by making more eco-friendly options available. Incorporating LCAs into the decision-making process helps provide environmentally sustainable product options, like Naturally Fresh. The use of LCAs also aligns with the values and mission of more and more companies looking to positively affect the climate and the communities they serve. Finally, products with positively impactful LCAs allow for more meaningful connection with consumers. To learn more about how retailers can engage with brands focused on sustainability, please check out PSC's Accreditation program.



Key Takeaways

- ✓ Because environmental impacts are never black and white, companies need to assess which indexes are most important to their strategic goals and use indexes of negative impact as opportunities for prioritization in sustainability-related company efforts
- ✓ A positively impactful product LCA also enables you to forge collaborative relationships with your suppliers, retailers, and partners.