CASE STUDY

PCC Community Markets' Upcycling Initiatives & Food Waste Reduction Commitment

Progress on the Path to Cut Food Waste in Half by 2030



Executive Summary

- PCC Community Markets (PCC) is the nation's largest community-owned food market with 16 stores in the Greater Seattle region. A co-op with a strong sustainability commitment, PCC signed on to the PCFWC commitment to help reach the regional goal of 50% food waste reduction by 2030.
- After analyzing food waste volumes across products, departments, and stores, PCC worked with FareStart, Macrina Bakery, the Center for EcoTechnology, and the Pacific Coast Food Waste Commitment to develop an upcycling program that would transform surplus artisan bread products into new, high-value products for customers. These products will generate new revenue for PCC, prevent hardening loaves from being donated, and avoid the negative environmental impacts associated with food waste disposal.
- PCC uses about 400 pounds of croutons and 250 pounds of panko crumbs per week in its salad bar and deli offerings a significant portion of which they believe could be switched to upcycled baguette croutons and bread crumbs.



Introduction

PCC is the nation's largest community-owned food cooperative. With 16 stores in the Greater Seattle region and nearly 110,000 members, PCC offers local and certified organic products and fosters community connections to increase food security in their region. PCC has maintained its core values of nourishing communities and "cultivating vibrant, local, organic food systems" since 1953, when the cooperative started as a food-buying club of 15 Seattle families. In 2021, PCC connected 14 farms with 19 of its partner food banks and donated 1.5 million meals to local neighborhoods. To realize this impact, the cooperative worked with over 45 organizations across the hunger relief system. On top of achieving 100% renewable energy, PCC is continuously improving the sustainability of its waste management. Eleven of PCC's 16 stores are zero-waste (>90% diversion rate).



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1.7 million pounds of food

PCC contributed more than 1.7 million pounds of food to over 50 community organizations across the hunger relief system. **This is the equivalent of 1,484,695 meals.**

89% of waste diverted from landfills

PCC diverted 89% of its waste from landfills into composting, biodigestion (WISErg system), recycling, and food donations.

In 2020, PCC signed on to the Pacific Coast Food Waste Commitment (PCFWC), a public-private partnership committed to reducing food waste across the region by 50% by 2030. As a signatory, the grocer shares challenges, progress, and successful practices to help accelerate food waste reduction across the private sector. Despite experiencing staffing and economic challenges brought on by the COVID-19 pandemic, PCC has remained committed to implementing new food waste reduction strategies, and the following case study will highlight part one of PCC's new upcycling efforts to develop higher-value and more circular solutions to surplus food in its stores. Upcycling, also known as creative reuse, is the process of transforming by-products, waste materials, and useless or unwanted products into new materials or products perceived to be of greater quality. It is an important strategy for reducing food waste, because it creates added value for previously discarded products, increasing positive economic outcomes.

From Baguettes to Breadcrumbs: PCC's Surplus Bread Upcycling Program

PCC's private label "Field to Table" baguette is a standout artisan bread made by Northwest landmark Macrina Bakery from organic wheat that is locally grown and milled, then delivered fresh daily to all 16 PCC stores.

Despite the success of this local partnership and how beloved the product is by PCC customers, the baguettes also present a unique waste challenge. "By design, fresh bread displays in all grocery stores generally have leftovers at day's end and present a huge food waste and grocery rescue challenge," explained Rachel Tefft, PCC's Sr. Manager, Community Food Systems.

In fact, PCC winds up with around 15% of artisan breads left over at the end of the day. Ordering, sales variations, and customer preferences all play a part in driving this waste. Ordering is not an exact science, given sales vary enough that a store could have a sell-out order on Tuesday, followed by piles of leftovers on Wednesday. Regardless, the goal for the PCC teams' ordering is an abundant display at all times to satisfy customer demand. "You have to have a very consistent offering for your customers," said Tracy Marik, PCC's Fresh Director of Merchandising. "Otherwise, you will lose sales and disappoint people."

To complicate matters further, for artisan breads like the PCC baguette, the airy crumb and caramelized crust (made without preservatives) stale so quickly that food banks and grocery rescue partners cannot use even day-old loaves. For the most part, these leftovers have been composted—until now.

The process of upcycling can add value to and increase the shelf life of products by turning them into something new. Established upcycling procedures guard against waste. On this front, they are especially helpful in cases where surplus is common, such as breadmaking.



In the early stages of planning its upcycling initiative, PCC brought in FareStart as a collaborator. FareStart is a long-established Seattle nonprofit that provides industry job training and community food programs. The organization is equipped with the taskforce and expertise to turn bread into new, high-quality products.

In order to implement the upcycling process, PCC also needed to engage a baked goods supplier, so they turned to Macrina Bakery, which was more than willing to collaborate on this project, because food waste reduction is one of its core values. The bakery was also eager to extend the useful lives of its carefully-crafted breads.

Through this new partnership with Macrina and FareStart, PCC launched an upcycling initiative to explore new ways to reuse its surplus bread loaves. Specifically, the project aims to:

- 1 Reduce PCC's food waste,
- 2 Keep food out of food bank supplies that can't easily be donated, and
- 3 Support new skills training and sales opportunities at FareStart.

Upcycling is not unheard of within the co-op. Any leftover roasted chickens, for example, are stripped of meat to go into deli chicken noodle soup. Yet developing a new product with outside partners required a new level of coordination and complexity that stood to benefit from the support of the PCFWC and the Center for EcoTechnology (CET), a consultant with 20+ years of experience in developing food waste solutions. "If this were easy, it would have been done a long time ago. We've got some great partners, and we're all willing to consider the possibilities," Marik said.



To initiate the project, PCC first worked with CET to conduct a feasibility study. CET analyzed surplus data for bread products across all PCC stores over an eight-week period, which they then compared against bread ingredient profiles to identify which surplus products would be best-suited for repurposing.

Next, a strategy was devised with Macrina to pick up leftover breads in the back receiving areas of stores and deliver them to a central location where FareStart could then collect the product. Given that stale baguettes are already placed in these back receiving areas for all pickups by PCC employees (whether they are destined for donations, test kitchens, or compost), this strategy did not require any extra work for PCC store staff.

With a process in place to redistribute the bread from store to FareStart for upcycling, the project team then turned their attention to which upcycled products would be the most valuable and commercially viable to produce.

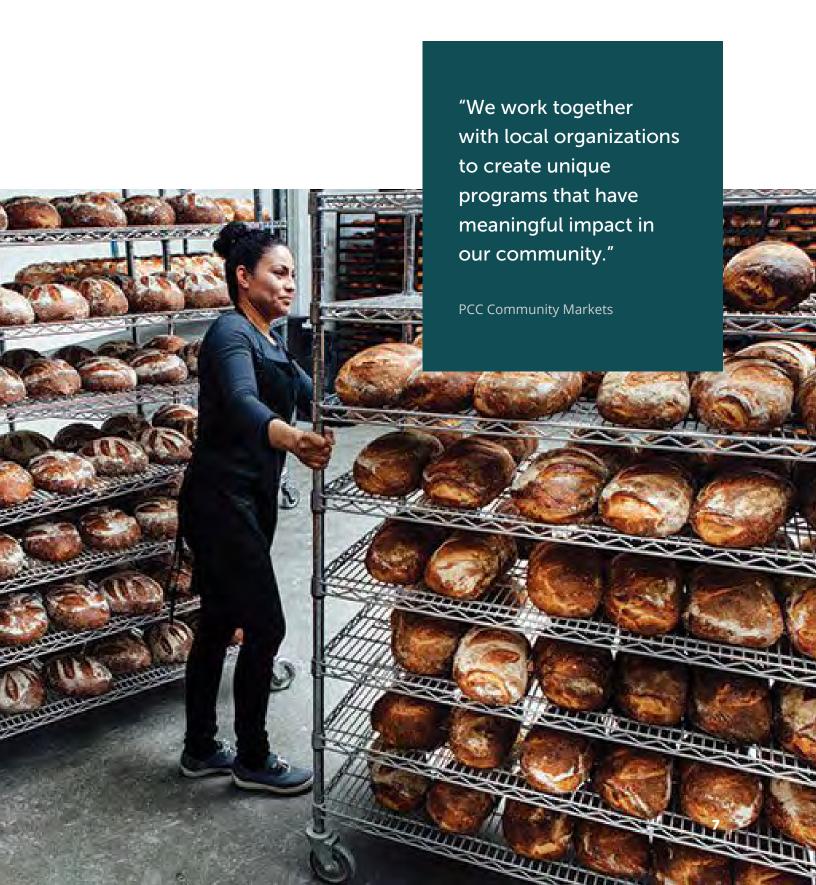


After several discussions with CET, FareStart, and Macrina, PCC's prepared foods department determined the baguettes could be ground into breadcrumbs for recipes like PCC's turkey meatballs, cut and baked into croutons, or even sliced and toasted for crostini. "We've got cooks. We can figure this out. If you reuse the bread you have, what can we make?" said Marik.

The potential benefits could add up fast. PCC uses about 400 pounds of croutons per week alone in its salad bar and composed salads. It incorporates about 250 pounds of panko crumbs into its salad bar offerings as well, which could be switched to baguette-breadcrumbs. If the baguette tests are successful, PCC could imagine adding other breads and bringing in stuffing mixes or other breadbased products.

To pilot this strategy, croutons will be the first test case in 2023. FareStart developed a recipe with day-old baguettes, and Marik and his team tested the first version, suggesting a slightly smaller size and a bit of paprika for a golden hue. With three garlic options, granulated garlic won out with employee taste-testers over fresh garlic or garlic-infused oil, adding a hint of saltiness while maintaining a "fairly neutral" flavor profile that could work in a wide range of foods.

FareStart is now developing a process to create a large-scale batch that store staff can test and see how it performs in deli foods. The true test will be calculating the financial models and potential cost savings of replacing their current breadcrumb and crouton ingredients with these new upcycled products.



Acknowledgments

The PCFWC would like to thank PCC Community Markets, FareStart, Macrina Bakery, and The Center for EcoTechnology for their contributions to this case study.



About PCC Community Markets

PCC began as a food-buying club of 15 Seattle families in 1953. Since then, our priorities haven't changed. Our mission is to ensure that good food nourishes the communities we serve while cultivating vibrant, local, organic food systems. In everything, we strive to inspire and advance the health and well-being of people, their communities, and our planet.

We embrace stewardship, act with integrity, and take action because we care. We're dedicated to preserving local farmland, and we foster high standards by partnering with Northwest producers, farmers, ranchers, and makers. Our passion is for great food and cooking, from our locally sourced produce to our in-store kitchens where original recipes are prepared fresh daily using seasonal ingredients. Because when you love a community, you feed it well.

About the Pacific Coast Food Waste Commitment

The Pacific Coast Food Waste Commitment (PCFWC) began in June 2016, when the Pacific Coast Collaborative (PCC) entered into the Pacific North American Climate Leadership Agreement and committed to advance organic waste prevention and recovery initiatives to reduce carbon emissions from the region's food waste stream. U.S. leaders in the food industry were invited to collaborate with area jurisdictions in a public-private commitment to cut the amount of wasted food in half by 2030 – a success metric aligned with other global, national, and regional commitments. To assist in moving the initiative forward, the PCC established collaborations with ReFED, WRAP, and World Wildlife Fund (WWF) as resource partners to provide expertise, additional philanthropic funding, and capacity for implementation. Cascadia Policy Solutions serves as facilitator for the effort and has provided foundational and ongoing critical support to the PCFWC since its inception.

Signatory Members

As of Fall 2022































Resource Partners









About the Pacific Coast Collaborative

The Pacific Coast of North America represents the world's fifth-largest economy, a thriving region of 55 million people with a combined GDP of \$3 trillion. Through the Pacific Coast Collaborative (PCC), British Columbia, Washington, Oregon, California, and the cities of Seattle, Portland, San Francisco, Oakland, Los Angeles, and Vancouver, British Columbia are working together to build the sustainable low-carbon economy of the future. King County in Washington and Alameda County in California have since joined alongside the PCC jurisdictions in signing on to and supporting the PCFWC. Formed in 2008, the PCC has established ambitious goals for reducing greenhouse gas emissions by at least 80 percent by the year 2050 through the transformation of energy systems, buildings, and transportation, and through food waste management – all of which would serve as a model for national and global action.