

A circular food system can withstand crises like COVID-19—and provide delicious meals

June 1 2021, by Sarah Trantum



An Ontario pilot project showcases a circular food model that results in delicious food produced via regenerative agriculture practices. Credit: Unsplash

There are many hard lessons learned from the pandemic. One is that our food system needs a serious reboot. Luckily, we need only look to nature's cycles for clues on how to fix it.

In a [circular food economy](#), food waste becomes valuable, affordable healthy food becomes accessible to everyone and innovation uses a

regenerative approach to how food is produced, distributed and consumed.

A pilot initiative in the Ontario city of Guelph and surrounding Wellington County, called [Our Food Future](#), is Canada's first circular food economy. It is demonstrating what a regional circular food model can look and taste like.

Falling out of sync with nature

The pandemic has magnified deep inefficiencies and inequity in the [food system](#). On one hand, we see tremendous food waste and on the other, worsening food insecurity.

One estimate is that [40 percent of food is wasted](#) in our current system. Meanwhile, [one in eight Canadians worry about their next meal, and one in six children](#) who go hungry each day. In Toronto, Canada's largest city, the situation is even worse, with [one in five residents experiencing food insecurity](#).

The food system has evolved into a linear model of [take-make-waste](#). We take from the ground the nutrients needed to grow food, make it into many products that line supermarket shelves, and then consume it, thinking little of the waste produced. This linear model is out of sync with the cycles seen in nature that were inherent in food production practices for thousands of years.

Food, design and systems thinking

Wading through the complexities of the food system can be overwhelming, but there are many opportunities to design a better model. First, it's important to see the connections between food and

design.

In fact, the food system *is* a design. Everything about how food is grown, distributed and marketed is design. Why is this significant? Because if food and the system that encompasses it is a design, then it can be redesigned—and that offers great hope for creating a better system.

As a social innovation designer, my research, teaching and practice focus on [systems thinking](#) and designing socially innovative solutions that don't simply address the symptoms—they also get to the root of the challenge. How we view food is one of the core issues that must be tackled.

Refocusing our food values

Barbara Swartzentruber, executive director of Guelph's Smart Cities Office that includes the Our Food Future initiative, says:

"Not only do we not properly value food, we don't value the people who are integral to getting the food to us—from the farmers who produce the food, to the truck drivers who deliver it, to the cashiers at the supermarkets."

Our Food Future is modeling a regional circular food economy that addresses food security, creates business and broader economic development opportunities and uses waste as a resource. It's helping to re-establish the connections and value of food along the supply chain. Our Food Future is a collaboration of a broad network of stakeholders—from agriculture, business, food sciences, government and academia.



Farmers are some of the many key stakeholders engaged in Our Food Future, Canada's first circular food economy, based in the Guelph-Wellington region. Credit: Justin Langille

Our Food Future is also supporting projects working to eliminate [food insecurity](#) by connecting community to healthy, locally produced food. Through funding opportunities and research partnerships, it's also championing farmers working to regenerate the land as well as food producers using data and other technologies to maximize efficiency and eliminate waste.

An innovative pay-what-you-can grocery service opened in Guelph last week! [#OurFoodFuture](#) is excited to be a part of this initiative with [@seedguelph](#) to help feed our community. Read

more here: <https://t.co/4MtdWCWItI>
pic.twitter.com/YJ2RBHzaot

— Our Food Future (@OurFoodFuture) [May 3, 2021](#)

Circularity on the plate

The Our Food Future initiative also exemplifies systems design and circular practices. Collaborations, mentorship and funding is helping to spur innovation and the creation of business models that are regenerative, meaning that the elimination or reuse of waste is an integral part of an organization's mission and operations. A great example is a project in collaboration with [Provision Coalition](#), called Re(PURPOSE): A circular food experience.

Last fall, seven stakeholders came together to show that a [food waste](#) byproduct could be kept in the human food system longer and ultimately help create a delicious meal.

[Spent grain](#) from the [Wellington Brewery](#) was sent to [Oreka Solutions](#) as food for [black soldier flies](#). These flies produce larva which became feed for fish at [Izumi Aquaculture](#). The manure from the fish farm made great fertilizer for potatoes at [Smoyd Potato Farm](#). Meanwhile, the spent grain, along with spent yeast from [Escarpment Labs](#), became the ingredients for [sourdough bread](#) made by [The Grain Revolution](#).

Then, the fish, potatoes and bread headed to [The Neighborhood Group](#), where these circular ingredients were transformed into dishes on the menus at three restaurants: fish and chips, smoked trout sandwich and gravlax and crostini.

Working together

The circular meal is a compelling example that demonstrates the power of circularity when food industry stakeholders work together to design solutions at the systems level. The result was creative, delicious food that would have otherwise gone to waste. The goal is that this successful pilot will become the basis of an ongoing collaboration and will inspire more circular practices in the food and other industries.

Our Food Future is just one example of the circular economy applied to the food system. But the circular model and circular design can be applied to any industry. Imagine an economy built upon products and services designed for their outputs to become inputs, with little or no waste, and fed back into the loop instead of a linear take-make-waste model.

A circular food system is aligned with how nature works when humans are not interfering. A transition from a linear to a circular model can help fight [climate change](#), produce more robust and truly innovative products and services, help businesses grow and allow us as individuals and communities to flourish.

For this transition to take place, we must push for change in the food system, including changing how we value food. Demanding transparency requires us as consumers to support producers who are taking the steps to care for people, animals and for the land. We must advocate for policies and leadership that fund farmers who embrace regenerative agriculture practices to create a better food model.

Designing a circular economy that is locally rooted, one community at a time, can collectively become an interconnected global circular food system.

It's possible, and Our Food Future is showing us how it can be done. The important lessons being learned by this initiative can be shared with

communities across Canada and beyond to design an equitable, regenerative food system.

If you want to learn more, check out the podcast [Designing a Humane Future](#) which features an episode on the [food](#) system, circular design and the Our Food Future initiative.

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