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'Let's not waste our food – or our environment'

By Jim Meek

When Marcia English was growing up in Jamaica, little food went to waste in her family kitchen.

English's family bought food as needed from a local market, and never in bulk. Processed foods were a rarity. The supply chain from farm to market to her home was a short one. And juice came from freshly squeezed oranges.

"I remember only having orange juice from a bottle when I arrived in Canada," says English, an early-career professor of Food Science at St. Francis Xavier University in Nova Scotia.

Today, English's past is prologue as she conducts research to mitigate the impact of food waste and food packaging on the environment.

The issues at the core of her work have never been more important.

Canadians see this clearly enough at the check-out line in grocery stores, where food costs have soared almost five per cent in the past year, according to Dalhousie University's Agri-Food Analytics Lab.

Of course, it's not only food wastage that increases prices.

COVID-19, the omnipresent god of contemporary life, has played its part by clogging up supply chains and slowing delivery times.

English says domestic food waste has also increased in Canada during COVID. With more people cooking and eating in their kitchens, waste volumes have shifted from restaurants to homes.

Fortunately, there's something we can do about food waste on the home front, she says, starting with a little value-added processing in the kitchen.

When you have overripe bananas, make banana bread.

The need to reduce waste is a serious one. By some estimates, Canadians manage to waste 50 per cent of our food from the farm field to the kitchen.

In Canada, farm production is often left in the fields – sometimes because supply exceeds demand, and sometimes because "misshapen" apples need not apply for a short-term position on the produce counter at Sobeys.

If consumers won't buy so-called ugly fruit, grocery stores won't stock them. We also lose food in processing plants, which account for about one-third of the waste in Canada.

English isn't gloomy about any of this, and she's not about to browbeat Canadians into changing their ways.

She's an educator, after all, and she says providing Canadians with better information about food waste – and what to do about it – might be the best first step in a campaign to address the problem.

Solutions are also emerging in other areas.

As food processors deploy digital technology in their plants, it should become possible to identify points in the delivery and manufacturing process where food is being wasted – and do something about it in real time. (In short, there's an app for that or there should be.)

In some European nations, food beyond its best before date – but still safe – is sold at a reduced price.

In Denmark, the government has launched a marketing campaign to make ugly fruit cute fruit.

Either way, an apple shaped like a gargoyle tastes as good as the one Adam couldn't resist in paradise.

English is also making strides in her own research.

She and her team are making a biodegradable food wrap – think Saran Wrap without the plastic. This involves using plant material strengthened by chitin, which is found in lobster shells, to make a wrap.

In the StFX process, chitin is extracted from the shells not through chemical processes but by deploying lactic acid during fermentation.

It's all magic to me, but I do get this much: No chemical-laden water is released during this process. The promise is that lobster-strengthened food wrap will keep both plastics and harmful chemicals out of the environment.

Would it be expensive to commercialize Xavier wrap? The answer is an unequivocal 'Yes'.

Here's where public policy plays a key part.

Governments will have to invest in the food business to reduce waste and environmental impacts, just as they invest in energy to put renewable power in place.

English also reminds us to keep the kitchen fires burning. A former Pharmacology student, she shifted to food science because it was more 'real' to her – and felt like more of a calling.

Makes sense to me. After all, most of us can make it real by gathering leftover veggies from the fridge and making a pot of soup that's good for the diner – and good for the planet.

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