



WASTED OPPORTUNITY: HOW FOOD MANUFACTURERS CAN TURN A LIABILITY INTO AN ASSET

For food manufacturers, food loss is a key source of revenue loss and environmental damage. But what if one of your biggest liabilities could become an asset?



PRI
ENVIRONMENTAL
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Food loss on a global scale is an enormous economic and social concern.

Food loss is a problem for everyone

It is estimated that approximately 60% - or [35.5 million tonnes](#) — of food produced in Canada is lost each year. Despite the streamlined processes of food production, food loss is an inevitable outcome that occurs at every stage of food production, costing [Canada](#) around \$49 billion a year. In addition to being a financial liability, this food loss also creates a significant environmental impact, releasing approximately 56.6 million tonnes of greenhouse gases annually. This is a problem that is not unique to Canada, and as such, the impact of food loss goes far beyond our economic borders and impacts us all each on an individual level.

Food loss or food waste?

[Food waste](#) is food that could have been consumed but was disposed of. It occurs during distribution, retail, and consumption. [Food loss](#) occurs during production, post-harvest handling and storage, processing, and manufacturing, as a result of factory problems.





Food waste poses a unique problem for food and beverage manufacturers

Food manufacturers know all too well that food loss during production is an expensive problem. Additionally, the financial and ESG costs can be difficult and overwhelming to address without external expertise. So, what can food manufacturers do? How do they even begin to address the financial and environmental ramifications of their food waste?

There are significant opportunities to put waste to work

Some degree of food loss is inevitable during manufacturing, however that waste does not need to end up in landfill. With ESG concerns at an all-time high and the circular economy gaining traction, there are clever ways for manufacturers to capitalize on their waste streams – although they will need to think a little differently.

It is time to pivot the way we think about waste. Food loss is no longer a liability for manufacturers: it is an asset.

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Reduction incentives

Many companies are unaware of the incentives available for waste reduction. For example, the Government of Canada has been offering financial incentives to companies that reduce their waste through their [Food Waste Reduction Challenge](#). Finding ways to rethink the way your company handles and disposes of waste can lead to a new stream of revenue — one you might not previously have considered.

Circular economy opportunities

Food waste can be [transformed](#) into all sorts of valuable materials, including:

- ✓ Compost
- ✓ Bioenergy and biofuels (such as biodiesel and bioethanol)
- ✓ Natural fertilizers
- ✓ Animal feed
- ✓ Textiles for clothing
- ✓ Pharmaceuticals, medicine and dietary supplements
- ✓ Cosmetics
- ✓ Building materials
- ✓ Bioplastics and packaging
- ✓ Coatings
- ✓ Adhesives

Material flows like these form the basis of the circular economy — an economic system where goods that would have otherwise been discarded are instead upcycled and re-enter the chain to further production.

Many companies are unaware of the incentives available for waste reduction.



Almost any organic matter will find a home with us — and we will make sure you are paid for it.

What is a circular economy?

A circular economy is one where the materials used to make a product are re-used to make other products at the end of life. Since old products become the source of materials for new products, it creates an economic cycle that utilizes pre-existing materials found in products at the end of its lifecycle as opposed to relying on natural resource extraction for raw materials.

In the context of the food industry, a circular economy means that food loss or by-products become the raw materials for new products. Examples of new products can include feed for animals, fuel for bioenergy, textiles for apparel, or organic fertilizer for crops. In the case that the organic matter cannot be utilized as a raw material, it will be composted and once again become the foundation upon which our food source is grown from.

Best of all, your food loss can turn a profit

PRI Environmental works with food manufacturers across Central Canada to create value from common forms of food loss. We collect left over flour, baked goods, crackers, and cereals to transform them into nutritious high-quality animal feed. In other words, almost any organic matter will find a home with us – and we will make sure you are paid for it. For every tonne of bakery food we upcycle, we generate \$50-\$100 in value for our clients.



How your bakery can turn food loss into animal feed

When you work with PRI Environmental, we will determine circular economy opportunities for you to capitalize on your food loss. Our partner, SPB Solutions, will turn your food loss into nutritious animal feed for fish, poultry, and livestock – benefiting both the planet, and your bottom line.

SPB's two signature animal feed products are **ENERGRO®** and **INGENEX**.

ENERGRO® (for poultry, swine, and pets)

Recovered bakery waste, sweet goods, and chips (corn/potatoes).

- ✓ Highly palatable (cooked starch, fats, and sugar)
- ✓ Highly digestible (cooked starch)
- ✓ Energy-dense
- ✓ Sanitized (heat-dried)

INGENEX (for swine and poultry)

- ✓ High fat (ensures that it is a sufficient source of energy)
- ✓ Low sodium



How can Canadian food manufacturers start turning waste into an opportunity?

There are three key steps to getting started on your circular economy journey.

1. Find a management partner

A circular economy consultant can give you a complete, end-to-end picture of your food loss by:

- Determining the volume of individual streams, including where loss is coming from and why it is rejected
- Collecting and sharing ongoing, real-time data on your loss in order to monitor improvements and changes over time
- Determining strategies to reduce total lost volume

Food loss management can also include:

- Identifying safe and efficient processes for handling and disposal
- Collecting and handling different types of streams on your behalf
- [Training staff](#) on best practices and using associated technology
- Ensuring compliance with regulation

And finally, they can identify ways to help you benefit from food loss:

- [Identifying opportunities](#) and offer solutions for converting food loss into environmentally friendly revenue streams (such as converting bakery waste to animal feed) to fuel the circular economy
- Improving ESG ratings and narratives around food loss management and carbon footprints

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A food loss audit is a formal review of the volume and types of loss being created by a company.

2. Conduct a food loss audit

What are food loss audits?

A [food loss audit](#) is a formal review of the volume and types of loss being created by a company. A thorough audit can improve the efficiency of the organization, reduce management costs, and optimize resource usage. An audit determines where wastage and loss occurs within your business, and identifies hotspots for taking action.

How are food loss audits conducted?

[Food loss audits](#) don't need to be intimidating, but they do need to be thorough. Your first step is relatively simple: select a team to conduct and undertake the audit. Ideally, work with a knowledgeable third party. We recommend choosing an experienced consultant who deals primarily with your industry.

From there, you will need to monitor every step of your production process — from the moment the raw ingredients enter the factory, to the moment they're sent off for packaging. Look to quantify the volume of the loss, but also understand why certain materials are discarded. Once your food loss audit is complete, you'll have a clear picture of what's being lost, and where.

Now, it is time to consider what you can do with that loss. Can it be diverted from landfill and be given a second life? In most cases it likely can be given a second life. This means that your food loss is no longer a liability, but rather, an asset.



We will handle all
your processing needs,
and send you the
cheque for the value
your food
loss creates.

At PRI Environmental, we perform two kinds of audits

1. [Process audits](#) help us understand how your company operates day to day. We'll determine the scope and sources of loss, and find areas to improve sorting and collection.
2. [Opportunity assessments](#) offer a detailed look at how you can benefit from joining the circular economy and make money from your waste streams. We'll assess the financial viability of your lost products, calculate the emissions of it, and measure the potential of your food loss.

3. Turn potential into action

The food loss audit will reveal several opportunities for minimizing food loss and capitalizing on the value of your organic waste. However, an audit only gives you a plan – it cannot do the follow-through for you! The third step of the audit is to turn your newfound opportunities into action by partnering with an experienced waste management company like PRI Environmental. We will handle all your processing needs and send you the cheque for the value your food loss creates. Everybody wins!



Convert your food loss into revenue with the help of PRI Environmental and SPB Solutions

Since the 1960s, PRI Environmental has been diverting waste from landfills in Canada. Operating out of Ontario and Quebec, our goal is to upcycle, reuse, and responsibly manage food loss in our country and convert that loss into revenue.

We will help you conduct:

- ✓ **Detailed food loss audits** – where sources of loss are identified and linked to certain areas of production
- ✓ **Product loss audits** – where your facility and its operations are evaluated from an efficiency, waste, and emissions perspective

We process up to 2,500 tonnes of food loss per week, saving up to 1,315 tonnes of CO2 each time. We convert your loss into animal feed, making sure that it's safe and healthy for animals to consume.

Interested in learning more about PRI Environmental's food loss recovery options? [Contact us today](#)

Start capitalizing on your food loss

If you're ready to divert your food loss into a business and environmental opportunity, talk to PRI Environmental today.

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