



Decentralizing Food Waste: Economic and Environmental Advantages for the Province of Manitoba



Food Cycle Science at a Glance

- Canadian company based in Ottawa, Ontario focused on **food waste diversion solutions**. All products branded **"FoodCycler"**
- 52 employees with a 20-person R&D team (including biochemists and engineers)
- Solutions available in North America through **municipal programs, direct sale, leasing opportunities**, and **internationally** through a network of distributors
- First-mover advantage with a robust **IP portfolio** protecting patented technology

Eco 5



Eco 3



Eco 1



FC-50



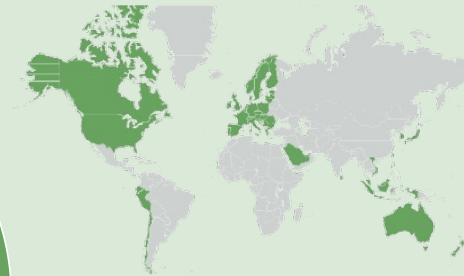
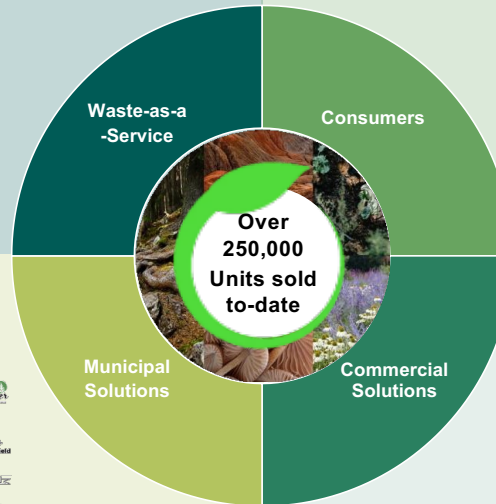
FC-75



Industrial Solutions



WASTE CONNECTIONS
Connect with the Future



ipc South Korea

Taiwan

Australia

And more...



190+

Municipal Partners in Canada and the U.S.



BentallGreenOak



EXTENDICARE

BrucePower

The Problem with Food Waste



- 63% of food waste is avoidable
- Household waste is composed of 25-50% organic waste
- Food waste weight is up to 90% liquid mass (which is heavy)
- The average Canadian household spends \$1,766 on food that is wasted each year
- Each year food waste in Canada is responsible for 56.6 Million tonnes of CO2 equivalent of GHG
- If food loss and waste were a country, it would be the third highest GHG emitting nation behind China and the USA



How It Works

The FoodCycler processes nearly all food scraps, including meat, dairy, bones, shells, and fibers, in three efficient stages:

1. **Drying:** Heats to 284°F, eliminating 99% of bacteria and reducing waste volume by up to 90%.
2. **Grinding:** Breaks waste into small particles with a powerful rotary mechanism.
3. **Cooling:** Safely cools the material, ready for handling and use.

The entire process takes 4-8 hours, consumes minimal electricity, and remains odor-free, thanks to its carbon filters.



FOODCYCLER

Foodilizer™ Uses

The FoodCycler® by-product (we call it Foodilizer™) is a dry, sterile, odourless and nutrient-rich soil amendment with many beneficial uses and practical applications:

- Add to garden soil
- Add to backyard composter/tumbler/green cone
- Integrate to existing Leaf & Yard waste systems
- Integrate into biogas or anaerobic digestion facilities
- Drop off at compost site
- Drop off at a local farm
- Drop off at a community garden
- Add to Green Bin (if available)



Why Our Partners Choose the FoodCycler

Hygienic & Prophylactic

- ✓ Effective method to foster a bacteria-free home kitchen environment
- ✓ Prevention of hygiene-related diseases

Odourless Without Pests

- ✓ Convenient method of preventing odours from organic waste at home
- ✓ Reduction of pests at home by neutralizing odours

Efficient Food Waste Processing

- ✓ Make 90% of food waste disappear within hours
- ✓ Safe approach to food waste processing and avoid cleaning up messy food scraps



Practicality

- ✓ Best solution addressing food waste issues for people in remote locations
- ✓ Lower frequency for taking out trash

Environment-Friendly

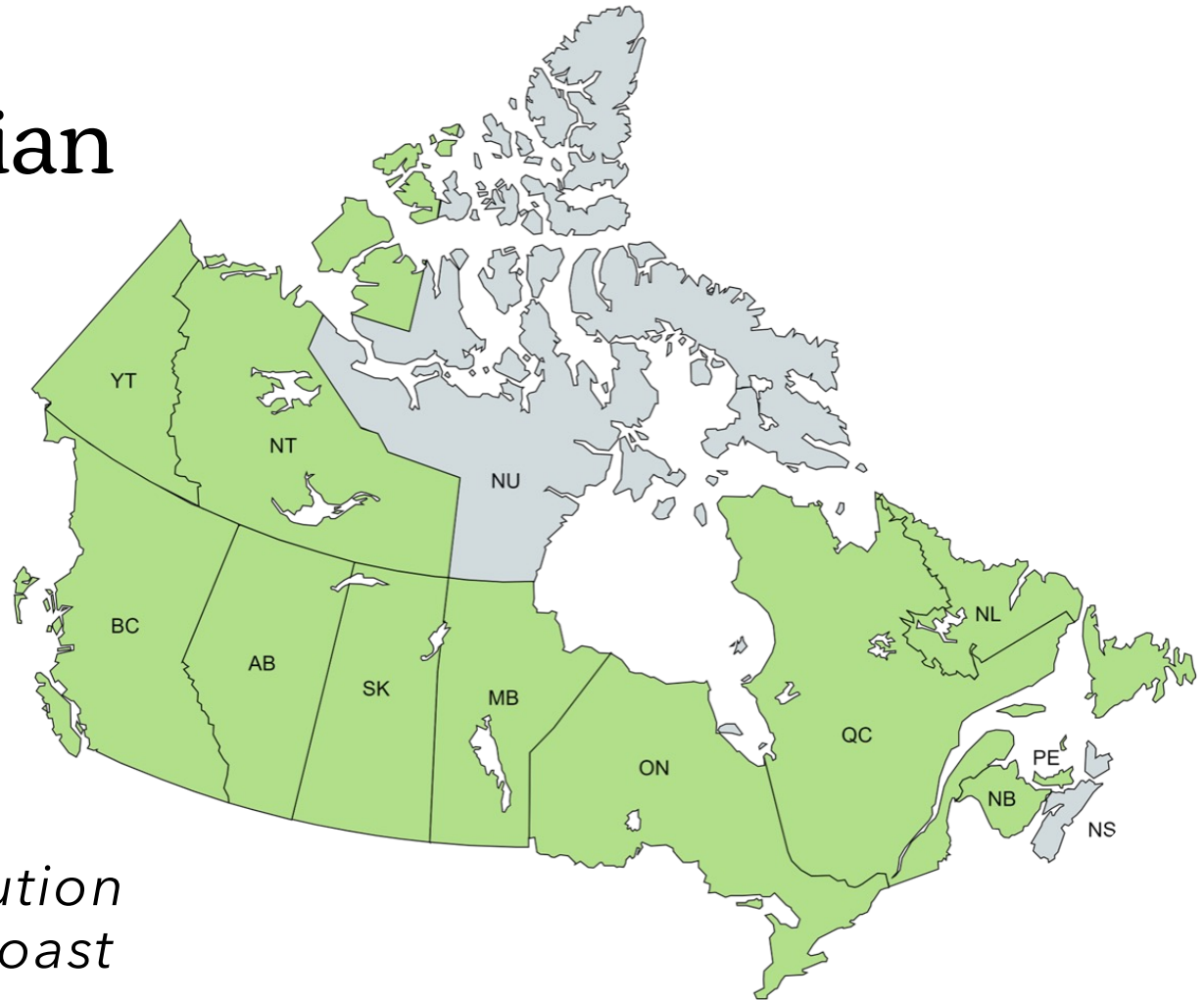
- ✓ Significant environmental impact on reduction of greenhouse gas
- ✓ Byproduct as fertilizer to foster vegetation growth

Economical

- ✓ Cost-effective solution compared to expensive traditional curbside pickups
- ✓ Potential monetary support from government subsidies

Over 175 Canadian Municipal Partnerships

- 9 Provinces
- 2 Territories



*A trusted Canadian solution
from coast to coast to coast*

Farm to Table – Table to Farm: Program Implementation

Food Cycle Science has an Implementation team to ensure each municipal and multi-residential program is right for their own circumstances; whether that's helping set up community gardens, providing training & support, or coordinating by-product collection bins - we help each step of the way.

1



Our Implementation team works to set up your program specific to your circumstances!

2



Residents receive a FoodCycler to use and track the number of cycles they have ran for 12 weeks.

3



Results from the pilot program are compiled and presented back to the community along with next steps.

FoodCyclers in Manitoba

Within Manitoba we have partnered with **25 communities** including the RMs of Rockwood, St. Andrews, Taché, Grahamdale, St. Clements, Pipestone, East St. Paul and Woodlands.

272 kg Net New Diversion

Each participating household in the RM of Pipestone is estimated to divert approximately 272 kg of food waste per year.

100% Participation Rate

100% of pilot participants from the RM of East St. Paul will continue using the FoodCycler after the pilot period.

86% Response Rate

86 out of 100 participants provided feedback and results from the RM of Richot's pilot program.

70.8 MT CO₂e Avoided

The RM of St. Clements program will sequester the same carbon emissions as 71 acres of forest each year (from 207 FoodCyclers)

81% Awareness + Prevention

81% of pilot participants in the RM of Woodlands have an increased awareness of food waste and are motivated to waste less.



Over 2500 units distributed to date!

FOODCYCLER

FoodCycler Programs in Manitoba



Over 2500 units distributed to date!

Nelson, BC: A Model for Innovation & Scale

- Citywide Implementation- 2,300 households equipped with FoodCyclers to date
- Alternative to green carts
- Infrastructure in place: carbon refill station, local repair program, and byproduct drop-off locations to support long-term program success.
- Ongoing education and program monitoring ensure resident participation and optimize waste diversion outcomes.

MARCH 25, 2024 | CLIMATE, COLLECTION, COMPOSTING, FOOD WASTE

Testing Pretreated Household Food Scraps As Diversion Solution







Multi-Residential Programs

How it works:

- One FoodCycler per unit, installed free for residents
- Units stay with the building as lasting infrastructure
- Each device includes a property label with a QR code for quick access to video tutorials, guides, and bilingual support
- Educational signage throughout buildings explains how and why to participate
- Info sessions & take-home materials help residents feel confident using their FoodCycler
- By-product bins provided, making disposal easy, reducing waste room trips, and keeping common areas clean



FOODCYCLER

The FC-75

Specifically engineered for commercial kitchens, food service operations, corporate offices, education institutions or any facilities requiring a compact, efficient, and affordable solution for on-site food resource processing.

- **Input:** Organic food waste except large animal bones,
- **Output:** Sterile, shelf-stable, nutrient-rich powder (soil amendment / anaerobic digester feedstock enhancer) and grey water, suitable for sanitary sewer discharge.
- **Process Capacity:** 75 L (20 gal) of food material per day.
- **Portable Mixer Buckets:** 2x 12.5 L (3.3 gal)
- **Cycle Time:** 6-8 hours.
- **Odour Control:** Carbon Filter with Closed Loop Technology.
- **Install:** On-wheels for roll in place
- **Connectivity:** WiFi, for remote support & data collection



Conclusion: Impacts of Decentralizing Food Waste

Cost → Hauling and landfilling costs decrease

Convenience → Solutions that fit seamlessly into daily routines

Climate → Reducing downstream emissions with the goal of turning our waste into a resource





Thank You! Questions?

To arrange a council presentation by one of our food waste experts, or to explore what a customized diversion program could look like for your community, reach out to



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