

FOODCYCLER

by

FOODCYCLE
SCIENCE

FoodCycler® Municipal Solutions

The Future of Food Waste

About Us

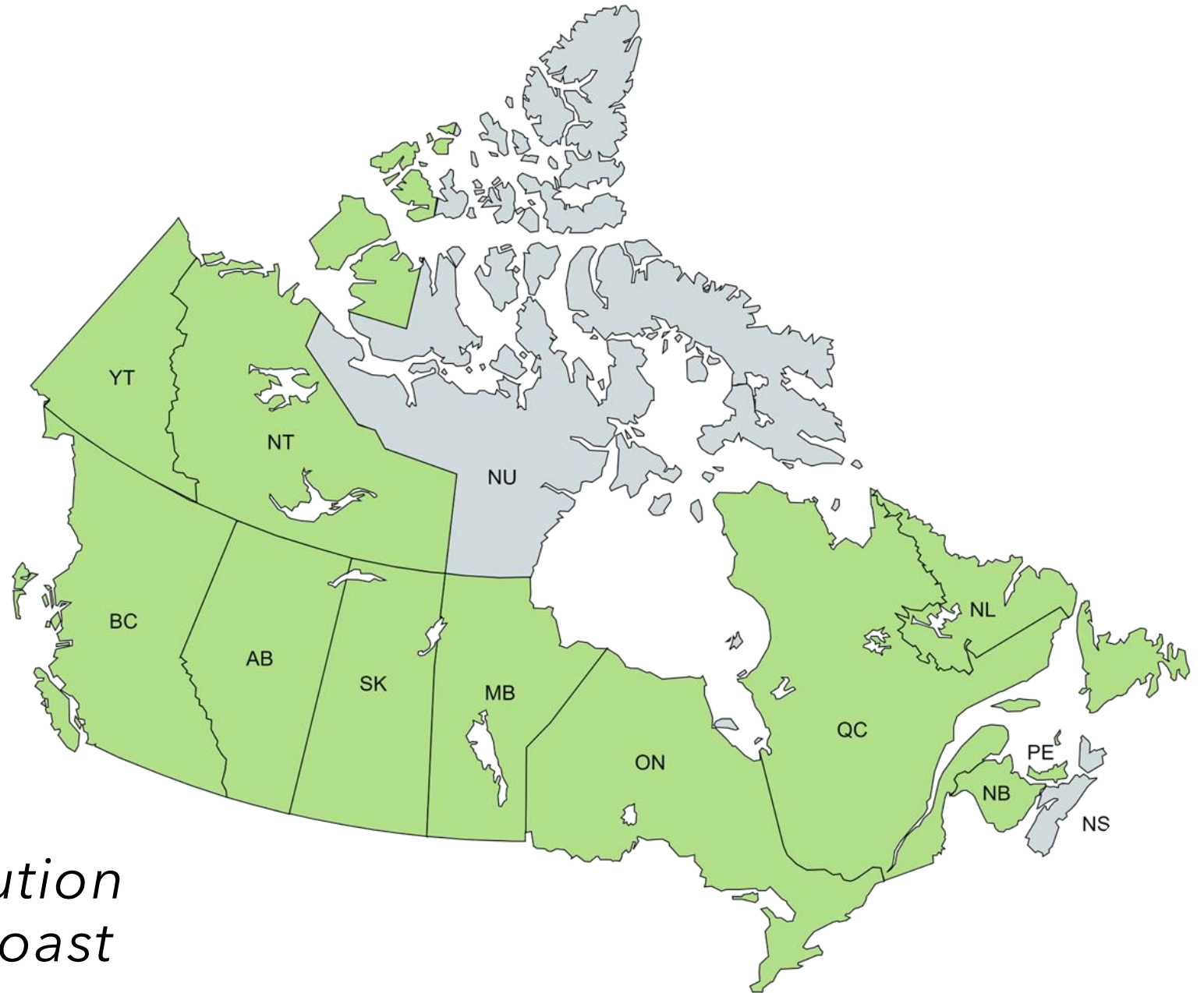


- Founded in 2011, based out of Ottawa, ON, Canada
- Products currently sold to over 30 countries
- Finalists in Impact Canada/AAFC's Food Waste Reduction Challenge
- Globe & Mail Canada's Top Growing Companies (2021– 2024)
- Deloitte Fast 50 CleanTech award winners (2021– 2024)
- Approved supplier with Canoe Procurement Group of Canada



150 Canadian Municipal Partnerships

- 9 Provinces
- 2 Territories



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

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

The Municipal Impact

Landfill & Waste Cost

- ~25-50% of household waste is organic waste
- Landfills are filling up fast, creating cost and environmental issues
- Hauling, transfer, and disposal services are a major cost and environmental contributor

Environment

- Organic waste in landfills produces methane, which is 25 times more harmful than CO₂
- 1 tonne of food waste is equivalent to 1 car on the road for a year



Community

Food waste in the garbage:

- More frequent collection or trips to the disposal site
- Unpleasant odours
- Animals, pests & other visitors



Removing food waste from garbage:

- Volume is reduced by up to 50%
- Less frequent collection, fewer trips to disposal site, save on bag tags
- Keeps odours out, makes garbage much less “interesting” for animals

Haven't we Solved this Already?



Green Bins

- Major capital expenditure to invest in processing & collection infrastructure
- Contamination is an ongoing challenge
- GHG emissions and safety concerns from collection vehicles
- Participation rates are often lower than desired, particularly in multi-residential dwellings
- Service disruptions due to labour strikes, vehicle breakdowns, or inclement weather

Backyard Compost

- Space, ability, and know-how are limiting factors
- Most users do not compost in winter or inclement weather
- May attract pests/animals or create unpleasant odours
- Participation rates are relatively low and stagnant
- Can produce methane if done incorrectly

Landfill

- Easiest solution and often perceived as the most cost-effective in the short term
- Waste is typically out of sight and out of mind for consumers
- High levels of GHG emissions, particularly methane
- Long-term environmental hazard requires monitoring / maintenance
- Landfill capacity is quickly running out

Our Solution

FoodCycler® makes food waste easy to deal with, right in your home.

- Easy to use
- Handles all types of food waste (meat, dairy, bones, pits, etc.)
- Only need a plug
- Consumes 11 kWh power (~\$0.11 per cycle)
- Cycle completed in 4-8 hours
- Resulting soil amendment has many beneficial uses



Product Family

FoodCycler® Eco 3



3.5 L

VOLUME
CAPACITY

5.0 L

19.5 L

UNIT VOLUME

28.9 L

4-8 HOURS

PROCESSING TIME

6-8 HOURS

0.9 kWh

POWER USAGE
PER CYCLE

1.3 kWh

REFILLABLE
FILTER

ODOUR CONTROL

REFILLABLE
FILTER

1-3

HOUSEHOLD SIZE

3+

FoodCycler® Eco 5



90% Food Waste Reduction

Full bucket of wet,
smelly food waste

3.5L / 5L



Handful of dry, sterile,
odourless & nutrient-rich
soil amendment

100 g / 200 g



4-8 Hours
(Overnight)

0.8-1.5 kWh
(Equivalent to a laptop)

\$0.10-\$0.15 per cycle
(\$2-4 per month)

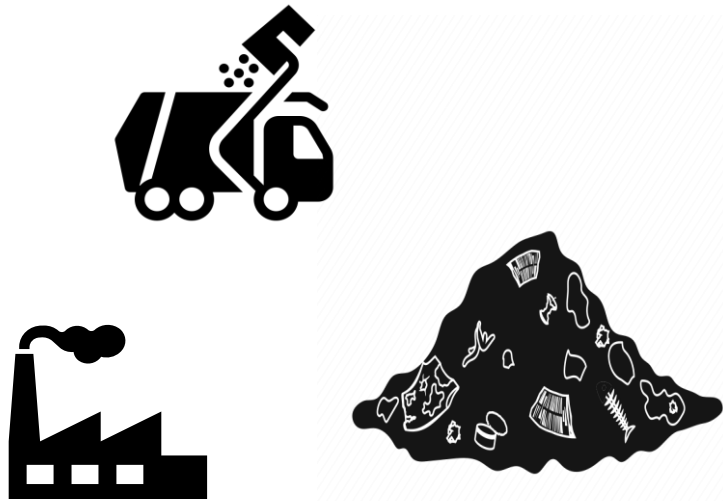
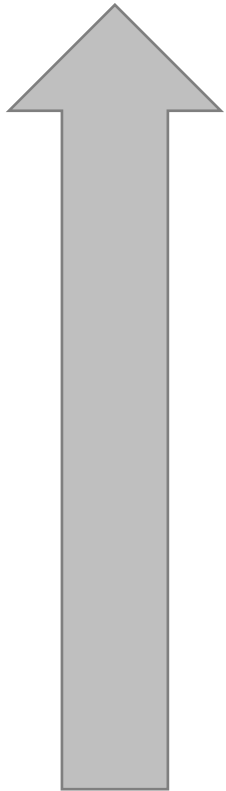
Foodilizer™ Uses

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:

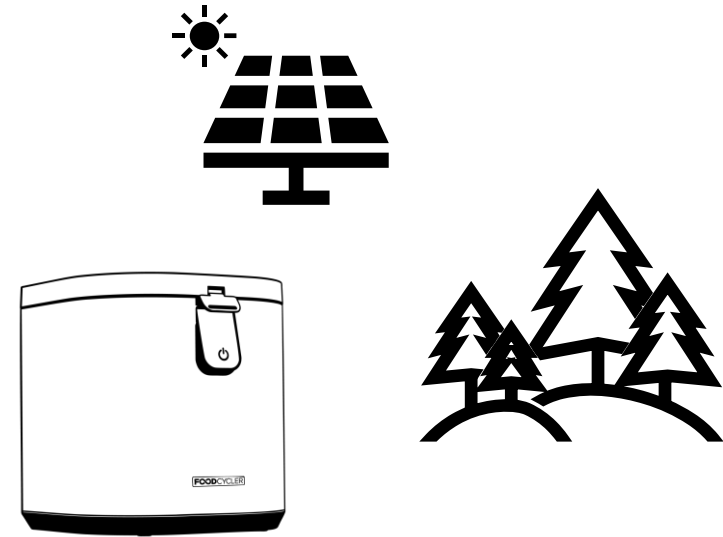
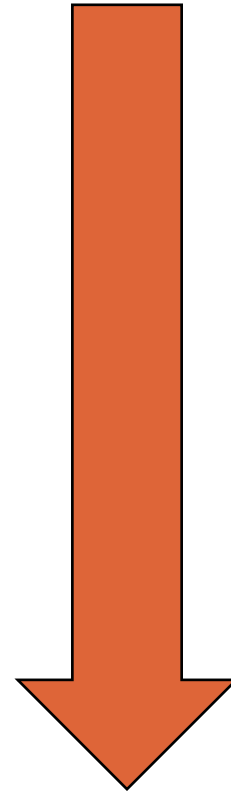
- Add to garden soil
- Add to backyard composter/tumbler/green cone
- Integrate to existing Leaf & Yard waste systems
- Drop off at compost site
- Drop off at a local farm
- Drop off at a community garden
- Add to Green Bin (if available)



Environmental Impact = Net Negative

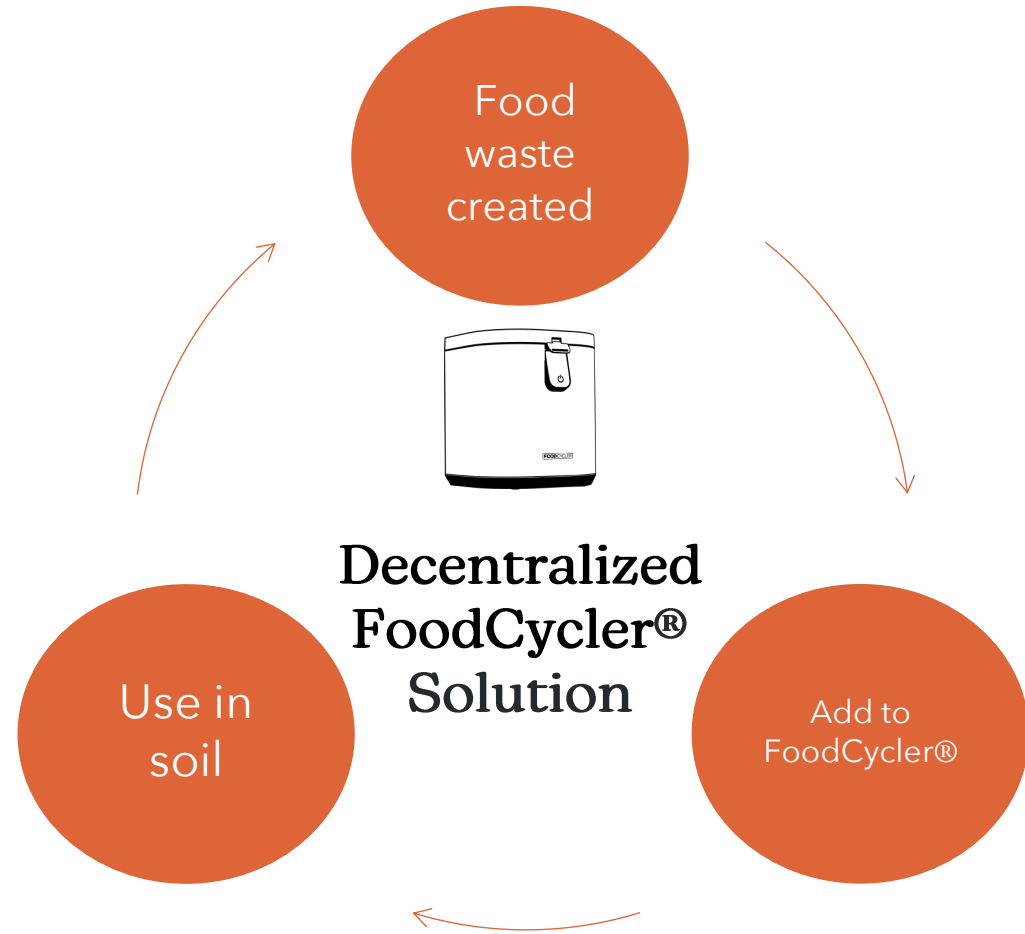


CO2 emissions **CREATED** by traditional waste operations



CO2 emissions **REDUCED** by offsetting

Economic Impact



Regulatory & Social Pressure

The Time to Act is Now

- Constituents want solutions to reduce their environmental impact
- Waste is perceived as a government problem and regulations are coming
- Food waste is “low-hanging fruit” to achieving higher diversion and addressing the environmental impact of waste

“We were extremely happy with this program and loved that it made us aware of our daily waste.”

Pilot participant in South Glengarry

“It’s a great tool to reduce household waste. Appreciate that the municipality is being innovative and piloting different solutions.”

Pilot participant in Hornepayne

“It alleviates a lot of the concerns that people might have with backyard composting. The time commitment, the location, pests and animals...”

**Kylie Hissa, Strategic Initiatives Officer
(Kenora, ON)**

Pilot Project Results



We've heard from...

10,000+

Households

80+

Municipalities

Participation Rate **98%**

- 98% of pilot participants will continue using the FoodCycler® after the pilot period

Recommendation Rate **96%**

- 96% of users would recommend the FoodCycler® to friends/family/neighbours

User Experience Rating **4.6/5**

- 4.6 out of 5-star rating for the overall user experience of the FoodCycler®

Net New Diversion **300 kg**

- Each participating household is estimated to divert approximately 300 kg of food waste per year

Awareness + Prevention **77%**

- 77% of pilot participants resolved to waste less food as a result of increased awareness

Pilot Program Model



Start

Residents purchase FoodCycler® at a subsidized rate from municipal office (or other designated location)

12 Weeks

Participants use the unit for a period of 12 weeks.

Number of cycles per week are tracked to estimate total diversion achieved.

End

Participants fill out an exit survey, providing their review of the program and any other feedback.

Survey results used to evaluate program success.

Next Steps

Tailored program design and implementation details shared for consideration.

Pilot Program Pricing



FOODCYCLER®
Eco 3

\$ 600

-\$ 300

\$ 100

\$ 200

RETAIL PRICE

MUNICIPAL
DISCOUNT

MUNICIPAL
SUBSIDY

RESIDENT
COST

\$ 800

-\$ 400

\$ 100

\$ 300



FOODCYCLER®
Eco 5

Pilot Program Sizes

Municipality Population	Pilot Scope	Municipal Investment
> 10,000 Residents	100 Households	\$10,000
10,000 – 20,000 Residents	200 Households	\$20,000
> 20,000 Residents	250+ Households	\$25,000+

- **Plus shipping costs and applicable taxes**



Why Partner With Us?

- Opportunity to trial a food waste diversion solution at a cost well below market prices
- Immediate impact of reduced residential waste volumes thus increasing diversion rates
- Reduced costs associated with waste management (collection, transfer, disposal, and landfill operations)
- The reduction of greenhouse gas (GHG) emissions from transportation and decomposition of food waste in landfills
- Extend the life of your landfill(s)
- Opportunity to support Canadian innovation and clean tech
- Opportunity to provide residents with an innovative solution that reduces waste and fights climate change, at an affordable price
- Obtaining data that could be used to develop a future organic waste diversion program

Thank You & Next Steps

- Receive presentation as information.
- If interested in partnering, please refer to staff for a report and recommendation to council.

Maddy From

Municipal Partnerships Representative

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