

FOODCYCLER TM MUNICIPAL SOLUTIONS

The Future of Food Waste.

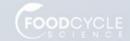




ABOUT US Food Cycle Science

- Canadian company based out of Ottawa, ON
- Founded in Cornwall in 2011 Company is 100% focused on Food Waste Diversion Solutions
- Products available in North America through FoodCycler Municipal / Vitamix and internationally through network of distributors & OEM partners
- Finalists in Impact Canada/AAFC's Food Waste
 Reduction Challenge
- Globe & Mail Canada's Top Growing Companies ('21, '22, and '23)
- O Deloitte Fast 50 CleanTech award winners ('21, '22, and '23)
- Approved supplier with Canoe Procurement Group of Canada





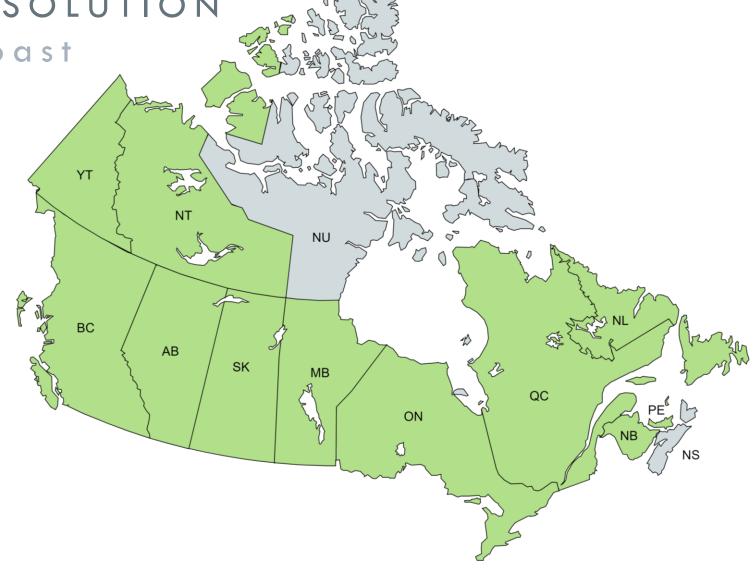
TRUSTED CANADIAN SOLUTION

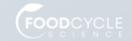
Coast to Coast to Coast

150 Canadian Municipal Partnerships

O 9 Provinces

C 2 Territories





THE PROBLEM - FOOD WASTE

- 63% of food waste is avoidable
- \circ Household waste is composed of 25-50% organic waste
- \circ 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





MUNICIPAL IMPACT

Waste is a municipal responsibility

LANDFILL + WASTE COSTS

- Landfills are filling up fast, creating cost and environmental issues
- Hauling, transfer, and disposal services are a major cost factor and environmental contributor

ENVIRONMENT

- Landfilled organic waste produces methane, which is 25 times more harmful than CO2
- 1 tonne of food waste is equivalent to 1 car on the road for one year



Food in the garbage:

 More frequent collection or trips to the disposal site

COMMUNITY

- Unpleasant odours
- Animals, pests & other visitors



Removing food waste from garbage:

- ∇olume 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

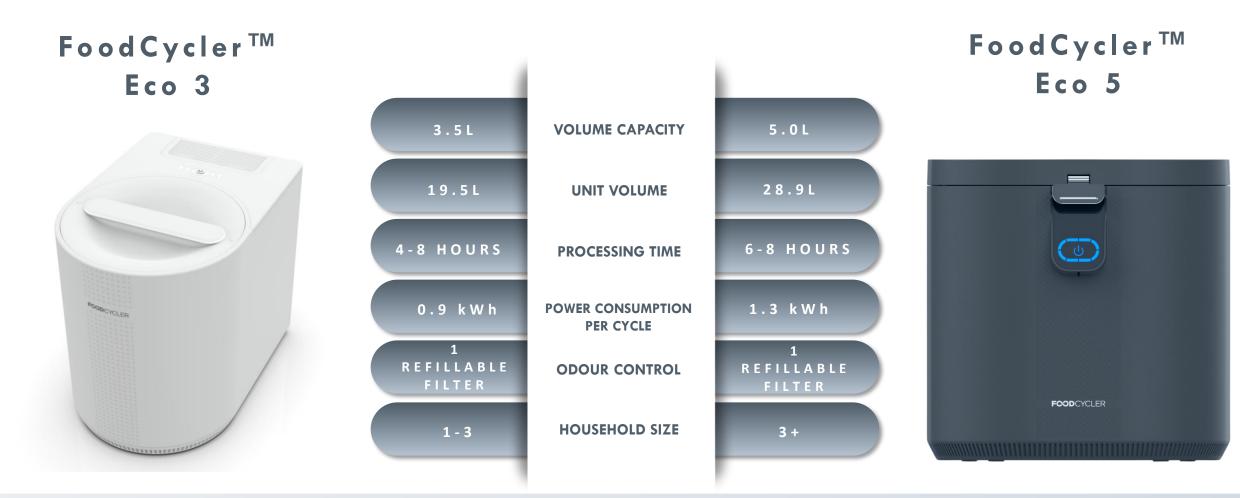
- Easiest solution and often perceived as the most cost-effective in the short term
- Waste is typically out of sight and out of mind for consumers
- High levels of GHG emissions, particularly methane
- Long-term environmental hazard requires monitoring / maintenance
- Landfill capacity is quickly running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



THE SOLUTION? THE FOODCYCLER



THE FOODCYCLER PRODUCT FAMILY





90% FOOD WASTE REDUCTION

Full bucket of wet, smelly food waste

3.5L / 5L

Handful of dry, sterile, odourless & nutrient-rich by-product

100 g / 200 g

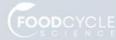


4-8 HOURS (Overnight)

0.8-1.5 kWh (Equivalent to a laptop)

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





FOODILIZER TM: BENEFICIAL USES

The FoodCycler by-product is a dry, sterile, odourless and nutrient-rich biomass with many beneficial uses and practical applications:

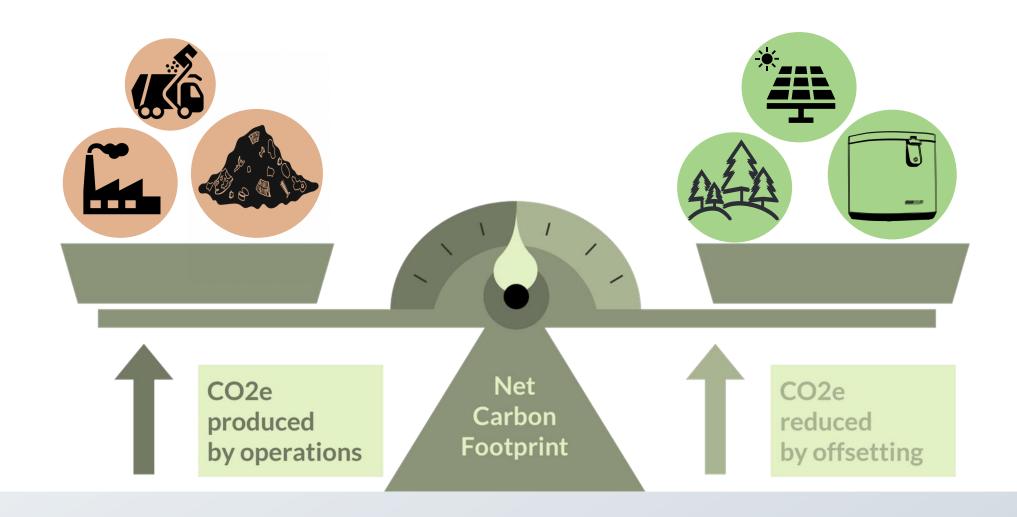
- Add to garden soil
- Add to backyard composter/tumbler/green cone
- Integrate to existing Leaf & Yard waste systems
- Pelletize/briquette as home heating alternative
- O Drop off at compost site
- Drop off to a local farm
- Drop off to a community garden
- Add to Green Bin (where available)

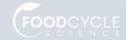




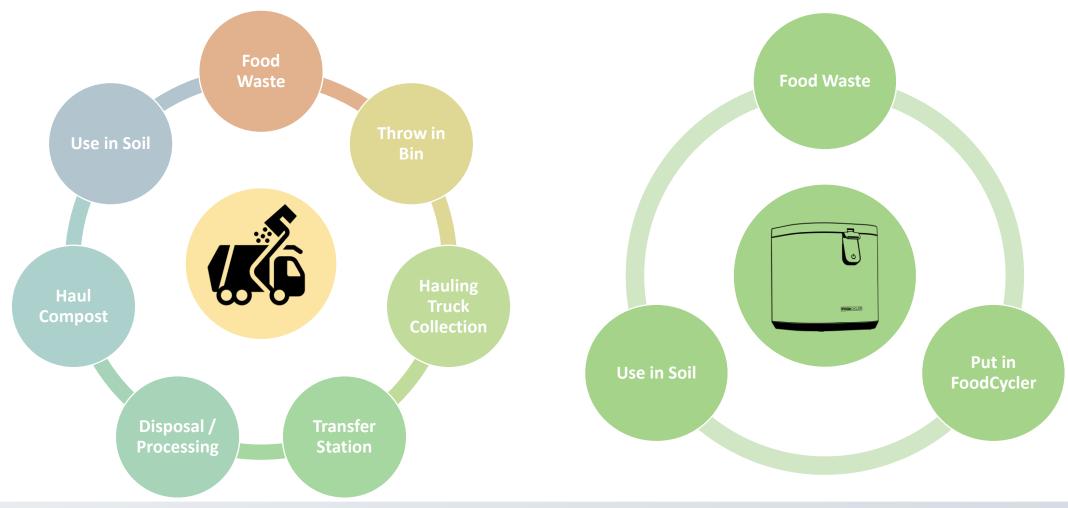
IMPACT: ENVIRONMENT

The Path to Net Zero





IMPACT: ECONOMIC

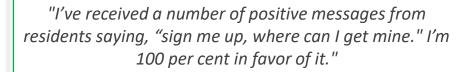




IMPACT: PRESSURE Regulatory + Social

THE TIME 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



Deputy Mayor Lyle Warden, (South Glengarry ON)

"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)



THE FOODCYCLER PILOTS The results are in.

We've heard from:

10,000+

Households

+08

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 12 Weeks from Start to Finish

PILOT TIMELINE

START 12 WEEKS END NEXT STEPS Tailored program design and Participants fill out an exit Participants use the unit for a Residents purchase implementation. survey, providing their period of 12 weeks. FoodCycler at a review of the program and subsidized rate from Grants may be available, any other feedback. Number of cycles per week Municipal Office (or with support from Food are tracked to estimate total other designated Cycle Science. diversion achieved. Survey results used to location) evaluate program success.



PILOT PROGRAM PRICING Municipal Subsidy Model



FOODCYCLER TM Eco 3

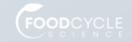








FOODCYCLER™ Eco 5



FUNDED PILOT PROGRAM OPTIONS Pilot Scope Recommendations

Municipality Population	Pilot Scope	Municipal Investment
2,500 – 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



PARTNERSHIP BENEFITS Why pilot 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





Next Steps:

- Receive presentation as information.
- If interested in partnering, refer to Staff for a recommendation to Council.





THANK YOU! ANY QUESTIONS?

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The Municipal Solutions Team

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