

COMPOSTING ALTERNATIVES FOR CONDOMINIUM LIVING

Continuing with recent articles about condominium living with the goal of building community and environmentally sensitive living, we have written about electric cars and native plants. This article offers thoughts about organic food waste and composting. How as condo unit owners within our communities are we to be part of the solution? According to an [Environment and Climate Change Canada 2022](#) release, almost 25% of Canada's methane emissions come from municipal solid waste landfills. If you're interested, a good source of information can be read in the Canadian federal government report on [Reducing methane emissions from Canada's municipal solid waste landfills](#).

Let's begin with defining methane and how composting can reduce this potent greenhouse gas. Methane is produced through the decomposition of organic matter, including food and yard waste while in the absence of oxygen. As reported by [NASA](#), *Methane makes up just 0.00018 percent of the atmosphere, compared to 0.039 percent for carbon dioxide. (CO2 is roughly 200 times more abundant.) Yet scientists attribute about one-sixth of recent global warming to methane emissions; what methane lacks in volume it makes up for in potency. Over a 20-year period, one ton of methane has a [global warming potential](#) that is 84 to 87 times greater than carbon dioxide. Over a century, that warming potential is 28 to 36 times greater.*

Reducing food waste is an important method of reducing methane emissions by planning meals carefully, buying only what you need and using leftovers creatively and composting. Even the most conscientious person will have food waste. As recently as January 17, 2023, [CBC Winnipeg](#) posted an article stating that 44% of Winnipeg's waste from single family dwellings was food waste. Composting that waste, rather than sending it to a landfill, where it will decompose and produce methane, offers an excellent methane reduction strategy.

That's what this article is all about, organic food waste and what we can do as condominium residents. If you're like me and live in an apartment-style condo, yard composting is not feasible. You either compost your food waste in your condominium or remove it for composting elsewhere. I've used [The American Environmental Protection Agency's](#) definition of composting:

Composting is a controlled, aerobic (oxygen-required) process that converts organic materials into a nutrient-rich soil amendment or mulch through natural decomposition. The end product is compost – a dark, crumbly, earthy-smelling material. Microorganisms feed on the materials added to the compost pile during the composting process. They use carbon and nitrogen to grow and reproduce, water to digest materials, and oxygen to breathe. You can compost at home using food scraps from your kitchen and dry leaves and woody material from your yard.

Let's look at four methods of composting vs landfilling your food waste.

VERMICOMPOSTING

[Vermicomposting](#) is an environmentally sensitive method of composting. Vermicomposting uses worms to compost organic materials into nutrient-rich soil. These worms, red worms or red wigglers, break down organic matter into a nutrient-rich material that can be used in gardening. Vermicomposting can be done on a small scale, such as in your condo. Larger-scale operations can also be used at landfills.

Vermicomposting benefits are that it is simple, efficient, and is an environmentally friendly waste reduction technique. Vermicompost can improve soil structure, nutrient content, and water-holding capacity, which leads to healthier plants and increased crop yields.

To begin you'll need a container, worms, and bedding material like shredded paper or coconut coir or husk. As you add organic waste materials the worms will break down the organic matter, and the resulting compost can be collected and used in gardening. If you build your own container remember to use a dark-coloured container, worms like to work in the dark.

Bins, worms and supplies can be bought online for less than \$400 Canadian or made on your own for much less. According to sources, if done correctly, there should be no smell or flies. If you think vermicomposting might become part of your green future consider this local source of expertise and resources at the [Green Action Centre](#). Additional resources are [here](#) & [here](#).

BOKASHI COMPOSTING

Bokashi composting is a method of composting using microorganisms, specifically lactic acid, bacteria and yeasts, to ferment organic matter. It is a fast convenient method to compost organic kitchen waste, including meats and dairy products, which are not typically used in other composting systems.

To begin you'll need a bokashi bin, which is a sealed container with a spigot at the bottom. You can make your own bokashi bin or purchase a kit for about \$100. You'll need to layer your food scraps and use a small amount of starter mixture containing microorganisms. The microorganisms will ferment the waste. This produces a liquid called leachate, (compost tea) which is drained through a spigot at the bottom of the bin.

About two weeks of fermentation is required, some sources say the longer you wait the better but two weeks is a common timeline. You can add it to a traditional outdoor compost pile or use it as a soil amendment. Because the microorganisms in the compost have broken down the organic matter, it should decompose more quickly than an outdoor compost pile.

One of the benefits of bokashi composting is that it can be done indoors, making it a good option for urban dwellers or those without a yard. It is also a good option for people who want to compost food waste but don't have the space or time for a traditional compost bin. The University of Saskatchewan has a short video about [Bokashi composting](#) and a [helpful guide](#).

COUNTERTOP DEVICES

The composting market now includes electronic countertop composters or precomposters if you like, which can be an alternative. A quick list of these products include the Lomi, Tero, Vitamix and Aerobin compost machines. These devices all sell in Canada for \$500 or more. Many of the devices require additional operating costs for filters, pods and electricity to operate that can add a couple of hundred dollars per year to the operation costs.

Some of the devices cannot compost bones, oils, dairy or large quantities of meat, or any hard pits found in avocados & mangoes. Some reviews report that they can be noisy. Some of the units might not fit easily on a countertop. If you're trying to achieve as green a lifestyle as possible, buying an expensive unit, often composed of plastic with a yet-to-be-determined life span might be a challenge. Reviews of countertop devices are abundant, a few I found are [here](#), [here](#), [here](#) and [here](#). If you're not up for worms or fermenting, these devices might be a realistic alternative to landfilling your food waste.



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COMPOST WINNIPEG

So far we've covered some of the latest thinking about vermicomposting, bokashi composting and countertop devices. Keeping things local, I spoke with Karrie Blackburn of [Compost Winnipeg](#). Karrie is a wealth of knowledge about composting. If the thought of an army of worms munching away in the dark 24 hours a day in your spare room, fermenting your food waste or spending your hard earned money on another plastic device is a deal breaker; Compost Winnipeg may be your answer.

Compost Winnipeg has been around since 2016 and has grown from one collection vehicle to a fleet of five. They are a social enterprise of the non-profit Green Action Centre. Compost Winnipeg currently diverts about 70,000 kgs of organic waste every month. Since 2016 they've diverted well over 3 million kilograms of food waste from Winnipeg Landfills.

If you're a unit owner in a condominium corporation that contracts with Compost Winnipeg here is what it could look like. Each unit owner requires a small container to collect their organic waste. Containers can be purchased for less than \$40 depending on your need for a Gucci-designed bin or plain pail with a lid. Containers can be fitted with biodegradable liners purchased most anywhere for a few dollars a box. When your container is full, deposit the compost into the large bin kept in or near your condominium garbage location. Once a week Compost Winnipeg's trucks arrive, empty the large bins and remove the organic waste. Compost Winnipeg has an [extensive list of acceptable items and a much shorter list of unacceptable compost material](#). Notable on the list is food waste that the other kinds of composting methods can't or don't recommend, such as bones, dairy products or teabags to name just a few.

Compost Winnipeg bills your condominium corporation \$5 a month rent for each 64-gallon bin and \$30 per bin per week to remove and compost the waste. The bins usually hold 20 to 25 residences of compost waste a week. Experience indicates that condominium unit owners create less waste because fewer people

usually live in condominiums than in most single-family dwellings. A cost breakdown for a condominium owner can be about \$5 per month, sometimes less.

Nothing beats an endorsement from a trustworthy source, after speaking with Compost Winnipeg they put me in touch with a Winnipeg condominium owner that researched composting for his condominium corporation.

Steve McConnell lives in a condominium on Wellington Crescent that contracted with Compost Winnipeg in January of 2022. Steve graciously spoke with me about his condominiums corporation's

(CC) experience with Compost Winnipeg. His CC consists of a 6 story building with 40 units. Steve said his experience and the results with Compost Winnipeg have been quite positive. When I spoke with Steve in November of 2022, Compost Winnipeg had collected on average, 33 kilograms of food waste a week, equal to 1,800 kilograms of waste a year.

Since contracting with Compost Winnipeg, the CC has noticed reduced odour from food waste rotting in the old garbage bins. They have had no problems with rodents or pests of any kind. The cost to the unit owners is only a few dollars per month. Each month

their CC receives a report from Compost Winnipeg that [looks like this](#). So far, Steve states the owners consider the project a success.

WHY IS DIVERSION SO IMPORTANT?

Diversion means that methane is not created at our landfills and that saves us [millions of dollars of tax revenue](#). Here's [Winnipeg's Organics Diversion Strategy](#). Unfortunately Winnipeg lags behind most large Canadian cities in organic waste collection. According to a 2012 [Conference Board of Canada](#) report, (that was current to 2016) Manitoba is rated as one of the highest provinces for waste generation and one of the lowest provinces for waste diversion.

In 2020 Winnipeg began a food waste compost pilot program that ended in September of 2022. A full report to council is expected sometime in the future. The program reported that it diverted 440,000 kilograms of food waste from the landfill, significantly reducing greenhouse gas emissions. The greenhouse gas emission reductions are equivalent to an average passenger vehicle driving 412,550 kilometres — the distance of driving across Canada 48 times. This program revealed valuable insights into composting in Winnipeg. A short video about the project can be viewed [here](#).

If you've made it this far, good for you! You now have some good ideas about methane reduction through composting that you can employ at your condominium level. Building condominium communities is the focus of these articles along with being a good environmental steward. Consider talking to your board of directors and other unit owners about seriously considering composting. As a condominium resident you and your community already benefit from lower living costs through increased density. Perhaps you can add composting organic waste to the benefits column and begin reducing methane from our landfills.

DUANE ROHNE
CCI Director

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