

Worming up to composting in Montreal

By Yannis Themelis (EEC Jr. Associate)

Five years ago, Olivier Pelletier was sitting with his friends in his tiny one bedroom apartment in Montreal, trying to figure out a way to help the environment. While recycling is a great initiative, Pelletier thought, people living amidst the city's urban landscape need to do something more to help Mother Nature.

That's when Pelletier, 27, a philosophy major at Concordia University, studying environmental ethics and practices, realized it was time his fellow urbanites get acquainted with his intimate knowledge on garbage and composting.

However, when it came to urban composting, Pelletier had one problem: How would he convince people living in apartments no bigger than a breadbox and barely enough room for a coffee table, that composting is possible?

Sitting in his two-and-a-half, Pelletier came up with a composting solution that was easy, cheap and could fit under your kitchen table. In short, Pelletier's big solution to urban composting was in the smallest of packages: the *eisenia fetida*, commonly known as the red worm.

Worm composting, Pelletier thought, would be a great way for people to reduce their daily garbage and convenient enough to do anywhere, even the tiniest of bachelor pads. But at a cost of approximately \$80 per pound, Pelletier found the slimy invertebrates too expensive for people on a budget. It was at this point that Pelletier and his friends decided to pool the little resources they had, and setup a worm-sharing network. Thus, Worm Swap was born.

Five years later, Worm Swap is still going strong. Under the auspices of the Montreal Urban Ecology Centre, Worm Swap provides free educational workshops on worm composting, helping to raise awareness about this important alternative to throwing out garbage.

Worm composting, also known as vermicomposting, is an excellent way to transform organic materials from the kitchen, such as vegetables, bread and pasta into a neutral fertilizer for the garden. All that is needed is a storage bin, newspaper clippings, organic waste, and last but not least, the secret ingredient: red worms.

Successful worm composting lies with the red worm. These red wigglers or manure worms can eat the equivalent of their weight per day in organic waste, making them ideal for composting. The enzymes in their digestive system help to transform the organic waste into rich neutral compost ready for the garden.

Worm compost helps the soil's structure by adding nutritious elements to the soil such as nitrogen, phosphorous and potassium. In addition to the green-thumb benefits, worm composting contributes to water, soil, and energy conservation, but best of all, helps to reduce waste.

If your first reaction to the idea of worm composting was one of disgust, you're not alone. While some people might be repulsed, Pelletier says most of the time, people are fascinated by this safe, easy, compact and odourless composting solution. And, he's right.

From the germane idea in his living room, to the office on Parc Avenue, Worm Swap has blossomed to a network of more than 500 members, or "wormers", as they are affectionately called. Even the worms people share today belong to the same lineage as the worms that started it all. "The whole idea was not to make money, but to just create an organization for people by people," said Pelletier from Worm Swap's office at the Urban Ecology Centre on Parc Avenue.

People frequently come to Worm Swap's office on Parc Avenue to drop off or share their worms, helping the network grow. The phone never stops ringing too, with people curious to know more about this urban composting method.

Now that your curiosity is piqued, the first thing you'll need is a cheap plastic, opaque storage bin, used for storing clothes or other knick-knacks. The most important thing when shopping for a bin is to remember that surface area is more important than depth, because the worms need space to roam.

The bin must also have a cover and an old rubber mat or newspaper underneath. The most important elements for successful compost are good air circulation, sufficient humidity, small compost materials and adequate volume, meaning proportion of space to worms.

To ensure proper air circulation, Pelletier says aeration holes can be made on the sides, top and bottom of the bin with a drill or similar piercing tool. Lastly, place the bin somewhere in the house where the temperature is between 15 and 25 degrees C.

Once you've acquired some real estate for your worms, you need to do some interior decorating. Your new houseguests need a warm, cozy environment to thrive. Pelletier suggests bedding material that can retain moisture, provides good air flow, and isn't coarse enough to harm the worm's skin.

The best thing for the job is newsprint, which is shredded and moistened. The newsprint also absorbs any foul smells emanating from the box, in addition to providing a decent PH balance for the eco-system.

Feeding the worms couldn't be easier – it's just like taking out the garbage. These invertebrate have a gourmet appetite. From leftovers, banana peels, coffee grounds, hair to worn-out cotton socks, these worms will eat anything, as long as it is organic, non-toxic and biodegradable. Every three to four days, take the scraps, dump them into the worm box, and let your new houseguests take care of the rest.

After several months of operation, you may notice that the bin is filled with a rather wet, compacted dark material called compost – a tell tale sign that harvest time has arrived.

Harvesting is the process of separating the worms from the finished compost. Some people may find the prospect of harvesting a daunting, unappetizing task. However, as Pelletier says, harvesting is not as traumatic an experience as people might think.

A popular harvesting method is known as the "dump and sort" method. This involves dumping the finished compost onto a table under a bright light, worms and all, being

careful to form several small cone-shaped mounts with the compost. The worms' sensitivity to the light will force them below the surface, so you can scrape off the top of the mound until the worms are revealed, and burrow deeper into the remaining compost.

Once the process is complete, lay fresh newspaper inside the bin, and place the worms back into their home with some fresh organic waste. The successfully harvested vermicompost can then be set aside for use in the garden.

Sounds simple? That's because it is.

While you may think worm composting is a novel concept, it's not. Wendy Grochinsky says that worm composting is extremely popular all over the world in places such as Europe, South America and even British Columbia. After all, worms are her business.

To fellow wormers, Grochinsky, 53, is known as the "Worm Lady". For the last 15 years, she has made worm compost her business, operating a small farm in Rodin, Quebec. Her company, Sister Squash Enterprises has everything you need or wanted to know about worm compost. From worm compost, ready-to-use worm boxes, to actual worms, Grochinsky's business is definitely a one stop worm shop.

Through educational initiatives, she teaches people how to bring life back into their soils and their gardens. Worm composting helps people to understand the symbiotic relationship that exists between their gardens and their waste disposal habits.

Worm composting is extremely beneficial for the environment, even when compared to traditional composting methods. Traditional composting is a slow process, because the composting is done through a lengthy heating process. Worm composting is much more efficient, due to the worm's digestive system, processing their food eight to ten times. As a result, this process creates highly purified manure or castings, which is much healthier for plants compared to cow or sheep manure.

The majority of Grochinsky's clients hail from Montreal. She says the response from worm composting, especially from families whose young children find the worms fascinating and fun. She has also noticed that while some of her customers are men, she finds it interesting that most are actually women, whom she says, are getting in touch with nature and can't bear to throw anything out in the garbage or the landfill.

The current state of waste management in Quebec is dire. According to Véronique Roy-Bouliane of Action-ReButs, a community-based organization that raises awareness about waste management, only 40 per cent of the garbage produced in Quebec is actually being recycled. The rest is left to fester in landfills, creating a toxic soup that seeps into the soil, waterways and atmosphere, ultimately contributing to climate change.

Grochinsky isn't surprised. While government and municipalities should perhaps force people to change their daily habits, Grochinsky believes it is up to people to take responsibility for their own garbage.

Prior to Sister Squash Enterprises, she worked in peace and environment issues, and eventually became the regional editor for Green Teacher magazine. Despite worm composting being very popular in British Columbia and California, Grochinsky discovered that there were no resources for worms in Quebec.

After further investigation, she learned of a few organizations within Quebec, but nothing on a level similar to the operations found out west. As a result, she decided to start a business from her home in Montreal. She started by cultivating worm boxes in the basement of her duplex. Within no time at all, she started to notice the benefits of worm composting, when with a family of four she would only throw out one garbage bag a month.

In the summertime, when she harvested, or removed the compost from the boxes, she placed a sign on her front lawn, “Cleaning Worms”, in the hopes of attracting attention from pedestrians. Curious people, both young and old, came to watch Grochinsky as she carefully harvested the boxes, and prepared a clean home for her worms. Before she knew it, her business became so popular she needed to move out, and find more space for her family – and the worms. Today, she still maintains a small operation in Montreal, but does most of her worm cultivation and compost work on the farm.

While worm composting may be very popular elsewhere in the world, the work of Sister Squash Enterprises and Worm Swap clearly indicates that the winds of environmental change are blowing. As worm composting becomes more popular, people slowly start to realize the garbage they throw out is no longer a hindrance, but a natural resource. Once people understand this Grochinsky says they will begin to appreciate their relationship with Mother Nature.

However, despite the positive response, both Pelletier and Grochinsky admit more has to be done to raise awareness about environmental issues, especially waste management. While Pelletier says government should take up the gauntlet of responsibility and invest in education initiatives, making recycling and composting a priority, Grochinsky has a more personal view about urban pollution.

She says governments need to bring nature into the cities, with the addition of more green spaces. Urbanites are constantly surrounded by spires of glass and concrete, cut-off from nature, living very ego-centric lives. The addition of more green spaces, Grochinsky argues, will encourage human beings to take a break from the hustle and bustle of urban life to reconnect with the environment.

“As long as we live in our heads, we’re not in our hearts,” said Grochinsky. “To understand nature you have to be in your heart.”

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