

CASE STUDY



Vancouver, British Columbia

▲ Worm bins manufactured by Transform Compost and sold to Vancouver residents for \$25 after the one-hour required workshops. The number for the compost hotline is pasted onto the side of the bins. Source: City Farmer



POPULATION:

631,486

PROGRAM START DATE:

1990

BIN TYPE AND PRICE TO RESIDENTS

Earth Machine™ from ORBIS Corporation – \$25 CAD (comes with free Wingdigger Aerator from Redmon) Worm bins made by Transform Compost – \$25 CAD (comes with worms, instructional book, bedding, trowel)

BINS DISTRIBUTED:

Approximately 53,000 total
Earth Machine™ – approx. 47,000
Worm bins – approx. 6,000

TRAINING AND EDUCATION:

One-hour training required for worm bins

Program Summary

Vancouver's home composting program was inspired by a resolution passed by the Vancouver City Council in February 1989 to reduce Vancouver's waste stream by 50%.⁴⁷ The City's subsequent waste reduction strategy included multi-material recycling and composting. It started selling subsidized bins in 1990.

Vancouver's Solid Waste Management Branch administers the program. The Branch issues a request for bids when it needs more composting bins and generally purchases around 300 units at a time. Residents can obtain Earth Machines at the subsidized price of CAD \$25 per unit at the South Vancouver Transfer Station; this is about half the local retail price. Residents can also pick up a free aerator at the transfer station when they purchase an Earth Machine™.⁴⁸ In 1993, Vancouver began distributing subsidized worm bins.⁴⁹ The worm bins are currently CAD \$25 each and provided by the local company Transform Compost Systems. The bins come with a tray, lid, worms, bedding, and instructions, and are sold at the Vancouver Compost Demonstration Garden after a required one-hour training session taught by the nonprofit City Farmer Society.

In 2010, Vancouver began collecting fruit and vegetable scraps at curbside; in 2012, all food scraps were added. Since then, residents of Vancouver have purchased increasingly fewer bins per year (see Table 10). Though other municipalities in the Greater Vancouver Regional Area have decided

47 Paul Henderson, "Composting in Vancouver: 10 Years of Progress," City Farmer, July 10, 1999, <http://www.cityfarmer.org/CompostPaul.html>.

48 City of Vancouver, "Garden Composters" (January 9, 2015), <http://vancouver.ca/home-property-development/garden-composters.aspx>.

49 Henderson, "Composting in Vancouver: 10 Years of Progress."

to discontinue bin programs in recent years, the City of Vancouver plans to keep its program. Vancouver’s garden composting web page shows how backyard composting and municipal compost collection can work in tandem. The web page recommends that home composters keep fish, meat, dairy, grain products, grease, oil, and cooked foods like pasta and rice out of their backyard bins because these foods decompose too slowly and could potentially create odors and attract pests. Vancouver asks residents to put these items in their curbside compost bins. In this way, home composters can make sure no food scraps go to waste.

If demand for backyard compost bins continues to decrease (see Table 11), Vancouver will consider switching from yearlong bin sales to a one- or two-day-a-year truck sale event. The City held regular truck sales in the past, but in the last ten years, it only had one in 2010, where it sold 786 units in a single day.

TABLE 11. ANNUAL BACKYARD BIN SALES IN VANCOUVER

Year	# Units Sold at Transfer Station	# Units Sold at Truckload Sale
2006	865	
2007	920	
2008	1,680	
2009	1,420	
2010 ^a	1,048	786
2011	1,269	
2012 ^b	744	
2013	467	
2014	326	
2015	286	

a Beginning of curbside collection of food and vegetable scraps

b All food scraps allowed in curbside collection program

Budget

In 2014, Vancouver Solid Waste Management had a \$100,000 budget for program promotion; the purchase of composters, aerators, and worm bins; and other miscellaneous expenses. Selling bins offset the program’s expenses by approximately \$15,000.

Staffing

Doug Thomas of the Solid Waste Management branch organizes procurement and sales of the Earth Machines. Receivers at the Vancouver South Transfer Station staff the bin pick-up service for residents. The nonprofit City Farmer Society provides a variety of other services (see below).

Partners

City Farmer Society, a Vancouver-based urban agriculture nonprofit organization, provides a variety of educational resources for home composting.

Impact and Benefits/Costs

To date, Vancouver has sold approximately 47,000 backyard bins. Though demand for bins has decreased since implementation of curbside collection, the reduced tipping and transport fees justify the continuance of the program.

▲ An advertisement for the discounted worm bins and free workshop printed in two different March 2012 editions of the Westender newspaper. The total cost of taking out the space for both advertisements was \$289,76. Source: Solid Waste Division, City of Vancouver

Marketing and Outreach

Vancouver has advertised the program with printed material and online media (see Appendix A). In the future, the City’s Recycling Coordinator, Doug Thomas, believes that the City will likely promote the program more than it has in the last few years to rebuild interest.



▲ The compost demonstration site at City Farmer. Source: City Farmer

Training and Education Demonstration Site and Worm Bin Workshops

City Farmer’s location includes a climate adaptation garden, green roof, cob shed, organic food garden, permeable lane, natural lawn, water wise garden, and worm and backyard composters.⁵⁰ Vancouver helps fund the nonprofit in order for the facility to double as the Vancouver Compost Demonstration Garden, where City Farmer’s staff also teach the required one-hour worm composting classes on behalf of the City. The City of Vancouver reimburses City Farmer for compensation paid to the worm bin workshop instructors, \$40 an hour.

Composting Hotline and Online Educational Materials

The City of Vancouver helps fund a hotline run by City Farmer that provides information on the benefits and mechanics of composting. Residents also call the hotline to schedule worm bin workshops. In 1999, City Farmer calculated that approximately 9,000 people a year visited its garden or phoned into the hotline.⁵¹ City Farmer was not able to give more updated estimates, but the organization’s manager notes that Internet resources are more relevant today.⁵² In 2012, City Farmer estimates there were about one million visitors to its website.⁵³

City Farmer provides worm composting guides and educational videos on its website,⁵⁴ and produced a how-to-backyard-compost video (featuring the Earth Machine™) for the City of Vancouver’s web page.⁵⁵

A PDF guide to home composting that is downloadable from the City of Vancouver’s home composting web page.  Source: City of Vancouver



50 “About City Farmer – City Farmer News,” accessed April 27, 2018, <http://www.cityfarmer.info/about/>.
 51 Henderson, “Composting in Vancouver: 10 Years of Progress.”
 52 Personal communication, Michael Levenston, Manager, City Farmer, September 2, 2016.
 53 CityFarmer.info covers a wide variety of gardening and urban farming topics.
 54 “Wormcomposting – City Farmer News,” accessed April 27, 2018, <http://www.cityfarmer.info/wormcomposting/>.
 55 Vancouver, “Garden Composters.”



▲ A worm composting workshop in action at the City Farmer demonstration garden.
Source: City Farmer

Tips for Replication

- Figure out how the program is going to fit into your waste reduction strategies. If you have a successful residential organics collection program, then the challenge is getting residents to use their backyard composter rather than putting everything at the curb. Vancouver's backyard composting program began when there wasn't anything resembling organics collection, so the uptake was good. Thomas is not sure how successful the program would be if it were rolled out now.
- Promote backyard composting and subsidize purchases in order to sell more bins.
- Provide support to residents after they purchase bins. The success of the program is not just how many bins are sold, but how many are in use.

Contact

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Links

City of Vancouver Home Composting Bin Websites

<http://vancouver.ca/home-property-development/garden-composters.aspx>

<http://vancouver.ca/home-property-development/apartment-worm-composters.aspx>

City Farmer (partnering nonprofit organization)

<http://www.cityfarmer.info/>