

# Implementing an Organic Waste Recycling Program

## *A How-To Guide for Business and the Workplace*

**Including organic wastes in your recycling program at your business** will result in exponential diversion results, reducing your garbage generation significantly – potentially up to 40%! Instead of burying these valuable resources in landfill which create considerable short- and longterm environmental issues, your diversion gains will be complemented with significant environmental benefits of greenhouse gas emission reductions, potential renewable energy production and the creation of compost for soil health and vitality.

In most ways, organics collection will require the same kind of attention that has been required of you when your recycling programs for glass, cardboard and plastic were implemented. Appropriate collection containers and collection schedules as well as upfront and ongoing education for both your employees and customers are all items that need to be planned for and implemented.

And the same kind of care that surrounds managing the cleanliness and aesthetics associated with your garbage collection will require your attention as you embark on an organics collection program.

Properly implemented with ongoing attention to collection results, **an organics collection program also offers the potential yield of additional cost savings.**



**Green Manitoba**  
*An Agency of the Manitoba Government*



# Getting Started ...

Like anything, upfront planning is key. Ensuring that you have the infrastructure support to carry out your organics collection program is fundamental.

Before significant effort is devoted to planning the implementation steps for your organics collection program, make sure that your collected organics will find a “home” in a nearby compost or anaerobic digestion facility. In many parts of the country, these facilities already exist to manage the organics collected from residents, businesses and public institutions. In other areas, this infrastructure is just beginning to be established.

Your waste hauler should be able to provide you with these details. Independent sources such as **The Compost Council of Canada** as well as the regional office of your Provincial or Territorial Ministry of Environment can provide additional insights.

Once you have checked this out and have the assurance that the efforts to collect your organics will realize the benefit of being composted versus otherwise sent for disposal, you can then focus on the rest of the steps involved in implementing a successful organics recycling program.

These steps require you to focus on figuring out the following basics:

- i. **what** to collect
- ii. **how** & **where** to collect
- iii. **when** to collect

# What is Organic Waste?

Remains of plant, animal and vegetable origins constitute organic wastes. And while we might refer to them as “wastes”, they are really valuable resources that, once composted, can be returned to the soil to improve its health and vitality.

**It is very important that you consult upfront with your waste hauler and compost facility to find out:**

- the appropriate organic residuals to be collected;
- the impact that any non-organic “contaminants” will have on your costs as well as your ability to use the services of the organics recycling facility on an ongoing basis; and
- the most appropriate collection container to use.

Materials that are just not going to be composted (eg. plastic straws, lids & coffee creamers, glass or plastic bottles, produce labels, bread tags, etc.) contaminate the integrity of the organic wastes being collected for composting. Every effort should be made to ensure that they are not part of the organic materials being collected as they will require additional effort by the organics recycling facility to remove (the costs of which could be passed back to you).

Similarly, the manner in which the organic residuals are delivered to the recycling facility can also vary significantly. Some will accept organic residuals in plastic bags, others will not. Some will be supportive of the materials being delivered in certified-compostable bags, others will tell you that their process does not warrant their use.

In most cases, organics recycling facilities will welcome having you call them directly as well as arranging for you to do a site visit. While this will involve extra time on your part, the benefits are substantive, providing you with a better understanding of the facility’s requirements and process (and how your collection program should best function) as well as providing added assurance that the organics that you collect will end up and be processed at the recycling facility.

## ***Common Organic Wastes can include:***

- Pre- and post-consumer food waste
- Paper products such as towels, tissues, napkins, cups and other soiled paper
- Plants and flowers
- Wood boxes
- Boxboard and cardboard, including wet as well as waxed (make sure that these materials cannot otherwise be recycled first before considering their diversion in an organics recycling program)

*NOTE: The types of organic residuals accepted (as well as the format in which they can be received) varies between organics recycling facilities.*

# HOW and WHERE to Collect?

*Convenience and practicality are prime factors in the success of your organics collection program.*

## First Things First

The amount of organic waste that is generated by a business can vary considerably. Consider conducting a waste audit to assess the quantities, types and locations of where organic wastes are generated throughout your operation. This will help you decide the diversion potential and financial impact, your haulage and education requirements as well as where organic collection bins need to be placed. This baseline information can also help establish diversion goals and track progress.

A waste assessment worksheet and waste audit how-to guide may be found by visiting *The Waste Audit Users Manual* produced for the Canadian Council of Ministers of the Environment (CCME).  
([Click here.](#))

Convenient access to the organics collection containers is fundamental to successful diversion. Most will set-up organic collection containers right beside the ones for recycling and garbage. If your program participants have easy access to garbage bins while the organics collection bins are in a farther location, there is a high likelihood that the organics will continue to be thrown out.

**Proper sorting of the organics is also fundamental to success.** It is critical that the organics collection bins are used exclusively for the organic materials targeted for collection. The organics recycling facility functions to provide an alternative to landfill for organic residuals as well as to produce compost for a variety of soil applications. Materials that end up in your organics collection container that cannot be processed will have to be removed and simply will be taking a longer route to the landfill. This extra effort adds incremental costs to the process which will likely be passed back to you or result in your materials no longer being accepted.

Good, **easy-to-understand signage on the collection bins is important.** Folks need to know what materials can or cannot be put in the containers so that they can do their part and sort properly. As well, upfront and ongoing training for everyone having access to the bins is essential to achieve quality participation.

## Places where Organics Collection Bins could be placed include:

- Washrooms (for paper towels)
- Kitchen (pre- & post-consumer food and soiled papers)
- Cafeteria (post-consumer food and soiled papers)
- On the grounds (yard waste)

From these diverse locations, the organics can be collected and centralized at a specific location which the hauler can access and pick-up.





# ***An Important Word about Biodegradable or Compostable Claims***

It is very likely that you will be asked to consider the use of utensils, cups and bags which make biodegradability or compostable claims relating to their “disappearance” or “disintegration”.

It is recommended that you adopt a cautious perspective towards claims and insist on using products which have gone through the rigorous inspection process to be **certified compostable**. These products have invested considerably to be able to substantiate their claims of compostability.

If a product is **certified compostable**, it needs to be compatible with the composting process, breaking down within the same timeframe as other organic materials and having no negative impact on the quality of the finished product, compost.

A claim of biodegradable is not the same as compostable. Biodegradable claims could involve a completely longer timeframe for degradation and not be compatible with the processing requirements at an organics recycling facility. If a product or package only states a biodegradable claim, it will not necessarily be compatible with the composting process. Choose products that have a **certified compostable logo** and claims.

In Canada, there is a national certification standard for compostable products. Under the direction of the **Standards Council of Canada (SCC)**, the manufacturer/distributor must be able to prove that their product conforms with specific performance attributes and adheres to the parameters for “compostability” as set out in the SCC-BNQ document, COMPOSTABLE PRODUCTS (CAN/BNQ 0017-988). Once the manufacturer has either submitted proof from international sources or undergone product testing in Canada, the product will be certified compostable, enabling the use of the logo below on their product or packaging and associated support materials.



The following products are among those which have been reviewed and certified in Canada for compostable claims.

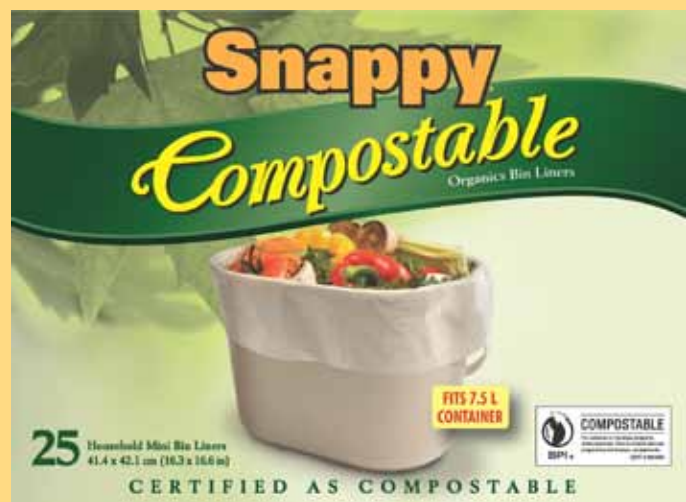
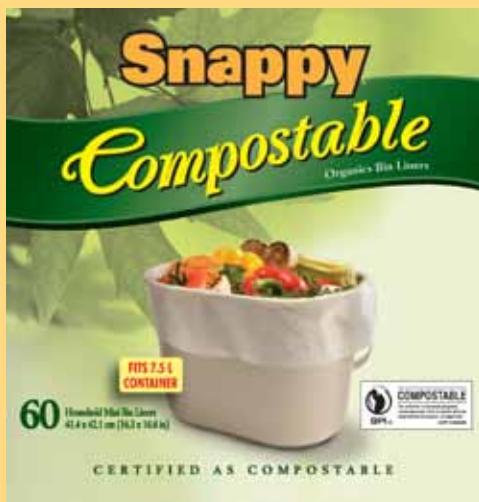
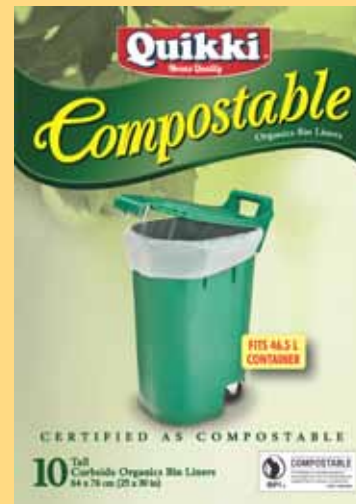
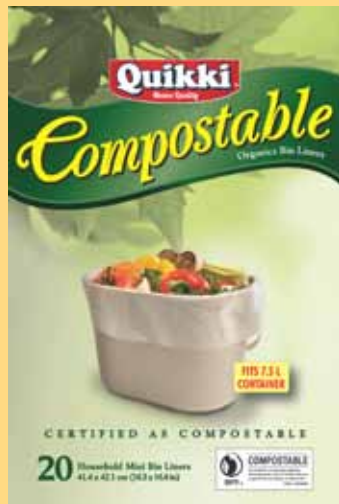
## AL-PACK



## Polykar

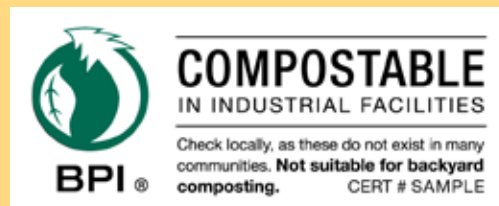


## El-En Packaging Company Limited



A complete list of products who have undergone the Standards Council of Canada's review process may be found by visiting: **[www.compostable.info](http://www.compostable.info)**.

As well, there are other international certification programs that could potentially serve as an appropriate guideline for your purchasing choices. These include:



**BEFORE YOU EMBARK ON PURCHASING ANY PRODUCT MAKING COMPOSTABLE CLAIMS, CONFIRM THEIR CERTIFICATION AS WELL AS THEIR APPROPRIATENESS WITH YOUR ORGANICS PROCESSING FACILITY.**



# TYPES OF CONTAINERS

There are many types of containers available to help with the collection of organics. It is very important to involve your maintenance staff as well as waste hauler in the selection process to ensure that the type selected suits their needs.

Containers that can be secured with lids and ensuring that they are kept tightly closed will help minimize the potential negatives pertaining to odour and pest management.

**If you are considering certified compostable or plastic liner bags for your containers, it is important to check that these are accepted by the organics processing facility.**

The following companies, all members of The Compost Council of Canada, offer collection containers that could suit your needs:

## Bin Manufacturers

**EcoSafe Zero Waste**  
[www.ecosafezerowaste.com](http://www.ecosafezerowaste.com)

**Orbis Corporation Canada**  
[www.orbiscorporation.com](http://www.orbiscorporation.com)

**IPL inc.**  
[www.ipl-plastics.com](http://www.ipl-plastics.com)

**Rehrig Pacific**  
[www.rehrigpacific.com](http://www.rehrigpacific.com)

**Molok North America**  
[www.molokna.com](http://www.molokna.com)

**The Greenlid**  
[www.thegreenlid.ca](http://www.thegreenlid.ca)

# WHEN TO COLLECT?

Organic residuals by their very nature can be messy as well as can create odours and attract unwanted visitors. And so, in the same way that you have to be mindful of your garbage collection, you must also pay extra attention to the frequency of the collection schedule for organic residuals.

Your hauler can provide you with options for daily, weekly, multiple pick-ups per week as well as bi-weekly and monthly collections. As service fees are usually charged per pick-up, the frequency of the collection schedule is a balance between the quantities collected per unit of time and the associated costs. **The plus side of implementing your organics collection is that you will likely realize savings in your garbage collection as its frequency of collection decreases with the introduction of the organics collection service.**

Don't forget to pay attention to setting up an appropriate storage area for the collected organics between pick-up dates. Locations that are cool in temperature and well-ventilated are desirable.

It is also important to be mindful of the ongoing cleanliness requirements for your collection bins.

Containers that have lids or other means to keep materials contained are of help. Some haulage services will have a container-switch program, rinsing or power-washing containers to remove residuals before they are returned at the next scheduled pick-up.



# Using Compost

As part of your ongoing education and promotion of your organics collection program, you should consider accessing some of the compost produced at “your” organics processing facility. The finished compost can be used at your site or shared with employees. This is a great way to have your organics collection program come full circle --- showing how the care that everyone has taken to separate and collect organics for recycling can be rewarded with significant environmental and diversion benefits as well as the creation of valuable compost which can “feed the soil” for improved health and vitality.



**FEED  
THE SOIL**

**COMPOST !**

Adding compost to your soil  
provides the structure & nutrients needed  
for healthy plant growth.

Make COMPOST happen !  
*Recycle your organics  
to feed the soil.*

 **Conseil canadien du  
COMPOST**  
Council of Canada

[www.compost.org](http://www.compost.org)

**ALLIANCE DE LA QUALITÉ  
COMPOST**  
QUALITY ALLIANCE

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# COMPOSTING: What's It All About?



**Composting is a natural process whereby micro-organisms transform organic waste materials into a soil-like product called compost or humus (pronounced "hue-mous").** Kitchen scraps, leaves and yard waste, soiled paper, food-processing wastes, wood as well as agricultural crop wastes and animal manures are excellent organic waste materials that can be composted.

For the composting process to work best, it is important that the micro-organisms have a continuous supply of food (ie. organic residuals), water and oxygen. Managing the temperature of the composting materials as well as the amount of time that the process takes are critical to success.

## Types of Composting

Composting can be done in many different ways. Types of composting range from residential or backyard composting to mid-scale and central municipal or industrial systems. Selecting the most suitable method depends on the amount and type of organic materials to be composted.

Residential or backyard composting means that an individual household composts most of its food and yard waste in a container located outside the home. Worm composting is a viable option to compost kitchen organic residuals indoors. At-home composting is the simplest and most cost-effective method because collection, transportation and processing costs are avoided.

However, not all food and yard waste can be managed so simply. Organic residuals from commercial sources, such as restaurants, supermarkets, apartment buildings and food manufacturers, need to be managed differently. This is where mid-scale and centralized composting fits in.

Both mid-scale and centralized composting involve significantly larger quantities and, often, a greater variety of organic residuals.



Mid-scale composting is the on-site management of organic residuals generated by a group of people, such as in an apartment complex, office building or hospital. This avoids the effort and costs involved in transporting organic residuals to another location. If your facility is interested in establishing an on-site composting process for your organics, you must devote the time to ensuring the availability of appropriate processing technology as well as be mindful of any regulatory requirements and operating resources to manage the ongoing composting process.

Centralized composting involves the collection and transportation of organic residuals from your place of operation to a special facility where they will be prepared and processed into compost.

Among the **most common centralized organics recycling process technologies are:**

**Windrows:** Organic materials are placed in long triangular rows called windrows, turned and watered as required.

**Static Aerated Pile:** Organic residuals are formed into windrows or piles over perforated pipes. Rather than the pile being turned, air is supplied through the pipes to support the composting process.

**In-Vessel:** In-vessel systems are either fully or partially enclosed and can handle more material in a smaller space than windrow or static aerated piles. However, they tend to be a more costly approach. These systems provide better control of aeration, temperature and moisture, all of which result in faster decomposition.

Although different in-vessel systems are available, the basic types are: channels or troughs, containers, covers and rotating drums.

**Anaerobic Digesters** are also used to manage organic residual materials. This process is managed in an oxygen-free ("anaerobic") environment by micro-organisms that do not need oxygen. The length of time to digest the organic residuals varies depending on the technology used. The process produces digestate, methane and carbon dioxide. The methane is captured and converted into energy and following digestion, the organics, now in more of a pulp format (referred to as "digestate") can be taken for composting.

**Source: Used with Permission and Adapted from *Centralized Composting: Helping to Complete the Carbon Cycle*. Written by Susan Antler of The Compost Council of Canada for Environment Canada.**

# Organics Recycling for Your Business

## A One-Day Workshop on the How-to's for Diversion Success

**DATE:** Tuesday January 12, 2016  
**TIME:** 9:30am – 4pm  
**LOCATION:** Manitoba Children's Museum  
45 Forks Market Road, Winnipeg  
**COST:** \$100 + GST

### Agenda

#### **The Organics Recycling Imperative**

*Susan Antler, The Compost Council of Canada*

#### **The Organics Recycling Infrastructure in Manitoba**

*Jim Ferguson, Green Manitoba*

## The Steps to Diversion Success through Organics Recycling

### **1. The Waste Audit**

*Winnipeg Harvest - Jacob Pachikara*

### **2. Upfront Preparation Collection System**

*Compost Winnipeg, Green Action Centre - Kelly Kuryk*

*Step-UP Waste Management Solutions - Jef Reyes*

### **Compostable Products & Packaging**

*BASF Canada - Isaul Lopez*

### **Educate! Educate! Educate!**

*Green Action Centre & The Compost Council of Canada*

### **3. On-Site/Off-Site Composting**

*The Real-Life Experiences of ...*

*The Forks - Dave Pancoe*

*Manitoba Liquor & Lotteries Corporation - Donna Dagg*

*Urban Eatin' - Tommy Allen*

### **4. Back to the Soil**

*Brandon Garden Network - Blake Hamilton*

**PLUS! Learn by doing!** Lunch will be served at The Forks Market after which you'll get an inside tour & experience of the sorting, collection and processing of organic residuals at The Forks.

# COMPOST Matters in Manitoba

**January 13<sup>th</sup>, 2016 - Winnipeg, Manitoba**  
**Manitoba Children's Museum**  
**45 Forks Market Road, Winnipeg MB R3C 4T6**

**Wednesday, January 13<sup>th</sup>**

**9:30AM to 4:00PM - Presentations**

## **Advances in Programs, Regulations & Support**

**Manitoba Composts! Action – Progress – Future**

*Jim Ferguson, Green Manitoba*

**Greenhouse Gas Reductions through Composting: An Overview of Cap & Trade, Emission Allowances and How These Programs Can Support Organics Recycling**

*Allan Yee, The Compost Council of Canada*

**Compost Guidelines: From Regulatory to Voluntary Industry Standards**

*Susan Antler, Compost Council of Canada*

**Rolling Out Winnipeg's Organics Collection Program**

*Justin Lee, City of Winnipeg*

**Expanding Steinbach's Compost Program**

*Eldon Wallman, City of Steinbach*

**The Importance of Equipment Maintenance at a Compost Facility**

*Ted Dirkx, Vermeer Canada*

**Sustainable Re-Use of Dairy Cow Manure for Animal Bedding**

*Joe Ackerman, University of Manitoba*

## **Compost, Soil Health & Product Quality**

**Capturing Compost's Potential: From Processing to Soil Health**

*Mario Tenuta, University of Manitoba*

**Producing Compost for Urban Agriculture: Needs and Opportunities**

*Bruce Berry, Almost Urban Vegetables*

**Plan to Attend ... REGISTER NOW!**

**[www.compost.org](http://www.compost.org) • 877-571-GROW(4769)**

# Sources of Info

The Compost Council of Canada: **[www.compost.org](http://www.compost.org)**

About the Claim, Compostable and Certified Products in Canada:  
**[www.compostable.info](http://www.compostable.info)**

## Provincial & Territorial Ministries of Environment

### British Columbia

**[www.env.gov.bc.ca](http://www.env.gov.bc.ca)**

General Inquiry: 250 387-9870

Questions? **[env.mail@gov.bc.ca](mailto:env.mail@gov.bc.ca)**

### Alberta

**[www.aep.alberta.ca](http://www.aep.alberta.ca)**

Phone toll free Alberta: 310-ESRD (3773)

Phone toll free: 1-877-944-0313

Email: **[ESRD.Info-Centre@gov.ab.ca](mailto:ESRD.Info-Centre@gov.ab.ca)**

### Saskatchewan

**[www.environment.gov.sk.ca](http://www.environment.gov.sk.ca)**

1-800-567-4224 (toll free in North America)

306-787-2584 in Regina

Questions? **[www.environment.gov.sk.ca/Contact#clickhere](http://www.environment.gov.sk.ca/Contact#clickhere)**

### Manitoba

#### Green Manitoba

**<http://greenmanitoba.ca/splash/>**

Phone: (204) 945-3268, Toll free: 1-866-460-3118

Questions? <http://greenmanitoba.ca/contact-us/sidemenu/>

#### Conservation & Water Stewardship

**<http://www.gov.mb.ca/conservation/index.html>**

Phone: 204-945-6784

Toll Free: 1-800-214-6497

### Ontario

**[www.ontario.ca/ministry-environment-and-climate-change](http://www.ontario.ca/ministry-environment-and-climate-change)**

416-325-4000

Toll-free: 1-800-565-4923

Questions? **<https://www.ontario.ca/contact-us>**



## **Québec**

**[www.mddelcc.gouv.qc.ca](http://www.mddelcc.gouv.qc.ca)**

Téléphone : 418 521-3830 ou

**1 800 561-1616**

Questions? **[info@mddelcc.gouv.qc.ca](mailto:info@mddelcc.gouv.qc.ca)**

## **New Brunswick**

**<http://www.gnb.ca/elg-egl/>**

(506) 453-2690

Email : **[elg/egl-info@gnb.ca](mailto:elg/egl-info@gnb.ca)**

## **Nova Scotia**

**[www.novascotia.ca/nse/](http://www.novascotia.ca/nse/)**

Phone: 902-424-3600

Toll Free: 1-877-9-ENVIRO (936-8476)

**<https://www.novascotia.ca/nse/contact.asp?div=gen&pg=dept&bk=/nse/Default.asp>**

## **Prince Edward Island**

**<http://www.gov.pe.ca/environment/>**

Questions?: **<http://www.gov.pe.ca/jps/index.php3?number=1033824&lang=E>**

## **Newfoundland & Labrador**

**[www.env.gov.nl.ca/env/](http://www.env.gov.nl.ca/env/)**

(709) 729-2556

Toll Free: 1 (800) 563-6181

Contact Info: **<http://www.env.gov.nl.ca/env/departement/contact/pollution.html>**

## **Yukon**

**[www.env.gov.yk.ca/](http://www.env.gov.yk.ca/)**

Phone: 867-667-5652

Toll free (in Yukon): 1-800-661-0408 local 5652

Questions? **[environment.yukon@gov.yk.ca](mailto:environment.yukon@gov.yk.ca)**

## **Northwest Territories**

**[www.enr.gov.nt.ca](http://www.enr.gov.nt.ca)**

(867) 767-9231

## **Nunavut**

**[www.gov.nu.ca/environment](http://www.gov.nu.ca/environment)**

(867) 975-7700

**[environment@gov.nu.ca](mailto:environment@gov.nu.ca)**