

Organics Collection:
Deciding what system is
the best fit for your
community

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Agenda

- **Introductions**
 - Background
- **Collection containers**
 - Strengths and weaknesses
- **Collection System**
 - How Much?
 - Co-collection
- **Items to Consider**



Organics Collection programs

- Early programs used large carts, collected on a bi-weekly basis; combined food waste with L&YW (i.e. Eastern Canada, Town of Caledon)
- Some programs use see thru bags for food waste (i.e. Guelph, Moncton, NB)
- Recent programs use small bins and provide wkly collection for food waste only; have seasonal L&YW (i.e. Toronto, Durham, Peel, Halton, Hamilton, Niagara)
 - Increased participation w/ weekly collection
 - Allows for separate processing technologies for each stream
- 'Yuck factor' is a barrier to participation → liner bags help address this issue
 - In Durham 99.9% of participating residents using some form of biodegradable liner
 - City of Toronto allows grocery bags liners and boasts a 85+% participation



Collection at the Curb

- **Large cart assumes yard waste**
 - Automated or semi-automated (90 -240 litres)
- **Small cart assumes manual collection**
 - Choices of plastic bags, certified compostable/paper liners, no liners
 - (<50 litres)
- **Strengths and weaknesses**



Polyethylene Plastic Bags at Curb

- **Food waste only**
- **Manual collection/split trucks**
- **Cost range \$.05 - \$.10 per unit**
- **Acceptable in City of Guelph**
 - **Perceived to be easier for residents > increased participation.**



Polyethylene Plastic Bags at Curb **cont.**

- **Strengths**

- **Controls odours & liquids**
- **Curbside clear after collection**
- **Easy to use**



Polyethylene Plastic Bags at Curb cont.

- **Weaknesses**

- **Requires debuggging at CCF or screening from AD operations**
- **Film contaminated with SSO needs to be disposed**
- **Not vermin proof**
- **Further screening required of finished compost >cost**



Compostable Bag Certification

Canada – Bureau De Normalization Du Quebec (BNQ)



North America –
Biodegradable Products Institute (BPI)

Certified Compostable Bags

- **Strengths**
 - **Controls odours**
 - **Controls liquids**
 - **Easy to use**
 - **Leaves no residue in finished compost**



Certified Compostable Bags continued

- **Weaknesses**

- **Initial lack of availability in stores**
- **Cost (though price is coming down)**
- **Requires de-bagging/shredding at CCF**
- **Primary stage performs like polyethylene plastic at CCF, however...**



Certified Compostable Bags continued

Ontario “Joint Initiative”:

City of Hamilton

Region of Peel

Region of Halton

Region of Niagara

Region of Durham

City of Barrie

City of Orillia

County of Simcoe

Similar feedstocks and liners



Certified Compostable Bags continued

- **Additional SSO materials specifications:**

Toronto & York (Markham): Soiled tissues, paper towels, sanitary products and diapers. No hair, cotton balls. Toronto allows plastic bags.

Peel, Halton, Durham & Niagara: Soiled tissues, paper towels, hair, cotton balls. No diapers or sanitary products or plastic.



Kraft Paper Bags

- **Strengths**
 - **Controls odours**
 - **Allows air circulation**
 - **Absorbent material**
 - **No residues in the compost**
 - **Additional carbon**



Kraft Paper Bags continued

- **Weaknesses**
 - **Cost**
 - **Durability at curb**



Food Waste Bins

- Source Separated Organics (food and soiled paper products)
- Manual collection – maximum 20 Kgs per bin
- 35 – 45 litres in size
- Holds about one week's organics
- Cost \$10 -\$15 unit
- Toronto, Hamilton, Halton, Peel, Durham, Barrie, Waterloo, York,



Food Waste Bins continued

- **Strengths:**

- Contains liquids
- Holds multiple bags or bundles of SSO
- Encourages participation

- **Weaknesses:**

- Limited size and weight restrictions
- Loose SSO freezes to sides
- Not vector and vermin resistant
- No air circulation



SSO Leaf & Yard Waste Carts

- Expanded range of SSO & LYW materials
- Semi-automated or automated collection
- Potential for bi-weekly collection
- 90-240 Litres
- Cost \$60 - \$100



SSO Leaf & Yard Waste Carts continued

- **Strengths**

- Contains liquids
- Holds a large amount of material (LYW)
- Vector & vermin resistant
- Wheeled carts encouraging participation
- Reduction in worker injury

- **Weaknesses**

- Resident storage issues
- High front end capital costs
- Potential for higher contamination



Collection System

- **How much SSO?**

- Average household generates 3 -5 kg of food waste per week – more if extended list of soiled paper, animal wastes, etc.
- Typical food waste picked up from typical route requires about 4-5m³



Collection System

- **Why co-collection?**
 - Collecting SSO on its own would result in routes many thousands of stops long
 - Collection costs could exceed \$1,000 PT
- **New Collection vehicles**
 - Split compartments
 - Adjustable in some cases
 - 80:20 without YW to 60:40 with YW



Collection system continued

- **What to collect together**
 - Co-collection of SSO with recyclables
 - Co-collection of SSO with garbage
- **Many decision points to consider**
 - Location of MRF, CF and landfill
 - What other streams?
 - How is YW processed?



Collection system continued

- **Many decision points to consider**
 - What is the collection frequency of the different streams? e.g. bi-weekly recyclables; bi-weekly garbage



Examples of Efficiencies

- Current programs such as Halton and Peel that use 45 litre curbside bin
 - No increase to fleet size when SSO collected with BB recyclables
 - Improved BB collection efficiency



Collecting SSO with Yard Waste

- In cart based programs, does not make sense to add a “fourth” cart
 - Garbage, recyclables, yard waste, SSO
- Accommodate seasonal peaks to collect bagged YW in separate vehicles –low cost of processing YW

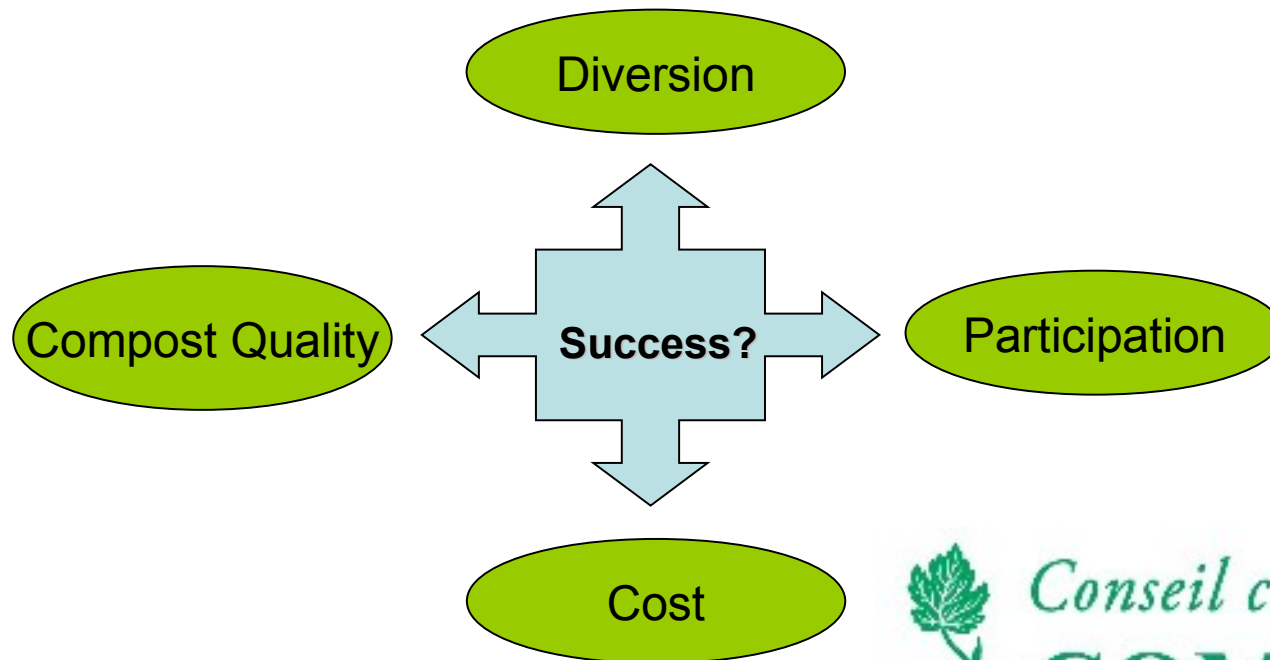


Items to Consider

- Question of yes/no to liners – secondary fibres such as sheets of newspaper, re-use of paper bags or boxboard cartons is a low cost alternative to liners
- Plastic, paper or certified compostable liners



Collection Decision: What type of program do you want?



Questions?



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