



**Green Manitoba**

*An Agency of the Manitoba Government*

## ***Manitoba Composts***

***Measuring Success  
SWANA-Northern Lights Chapter  
Annual Conference***

***Winnipeg, MB***

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# What is Composting?

## ○ Composting:

- the biological decomposition of organic material carried out under controlled aerobic conditions, undergoing a thermophillic phase that produces a mature product called compost.

## ● Biological Decomposition

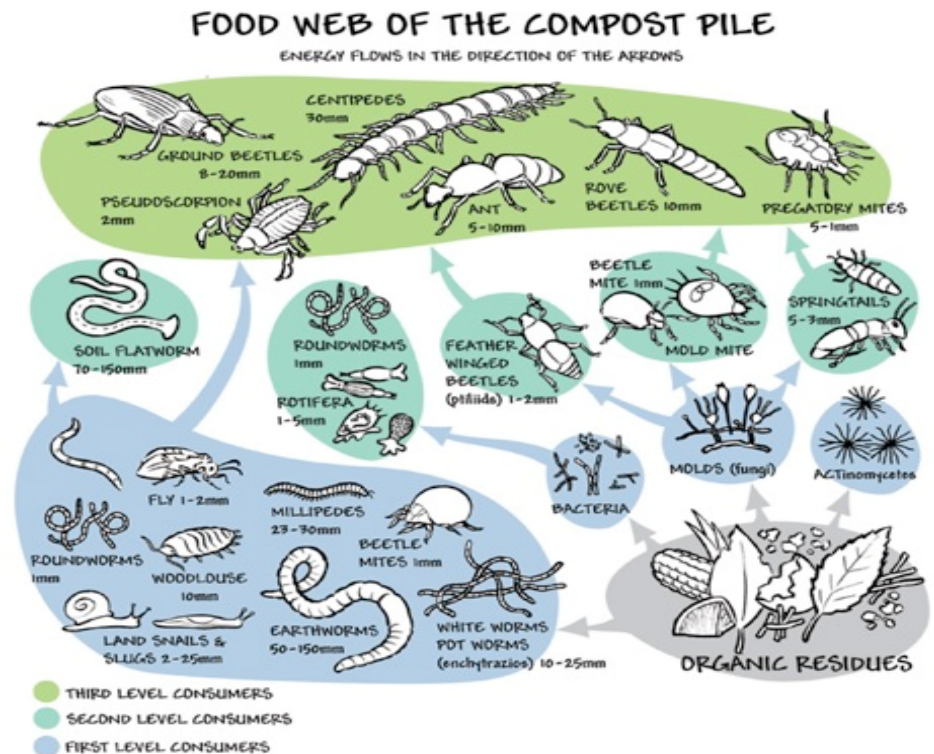
- Micro organisms
- Macro organisms

## ● Aerobic

- With oxygen

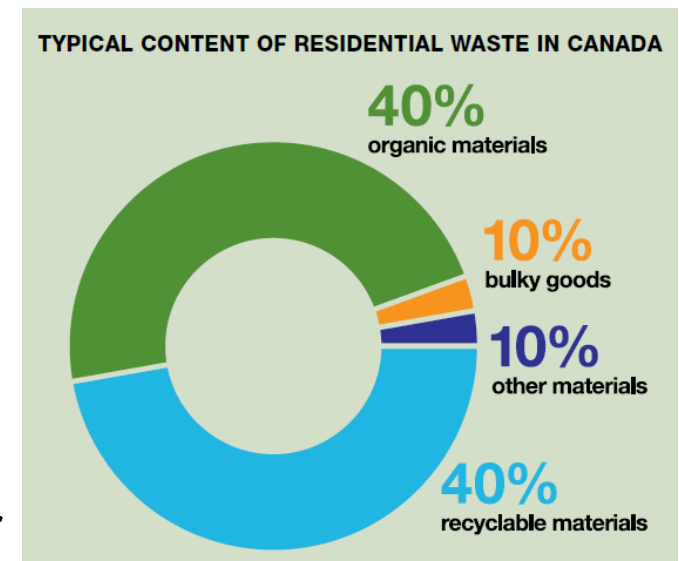
## ● Thermophillic

- Heating (50-60°C)



# Waste Reduction

- Organic material is the highest proportion of waste material landfilled
- Composed of:
  - Food Waste
  - Leaf and Yard Waste
  - Clean Wood Waste
- ~ 230kg generated/person/year
- Organic matter is source methane gas emissions and leachate from landfills
  - Every tonne of organic waste (60% food waste 40% leaf and yard waste composition) diverted from a landfill to a centralized composting facility reduces 0.59 tonnes of CO<sub>2</sub> equivalent (eCO<sub>2</sub>).



*(Manitoba's Waste Reduction and Recycling Discussion Paper, 2014)*

# Local Processing

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- Opportunity for local green jobs
  - Material must be dealt with in a timely matter
  - For every 10,000 tonnes:
    - Landfilling = 2.2 jobs
    - Composting = 4.1 jobs
  - In addition, market and jobs created in association with compost use

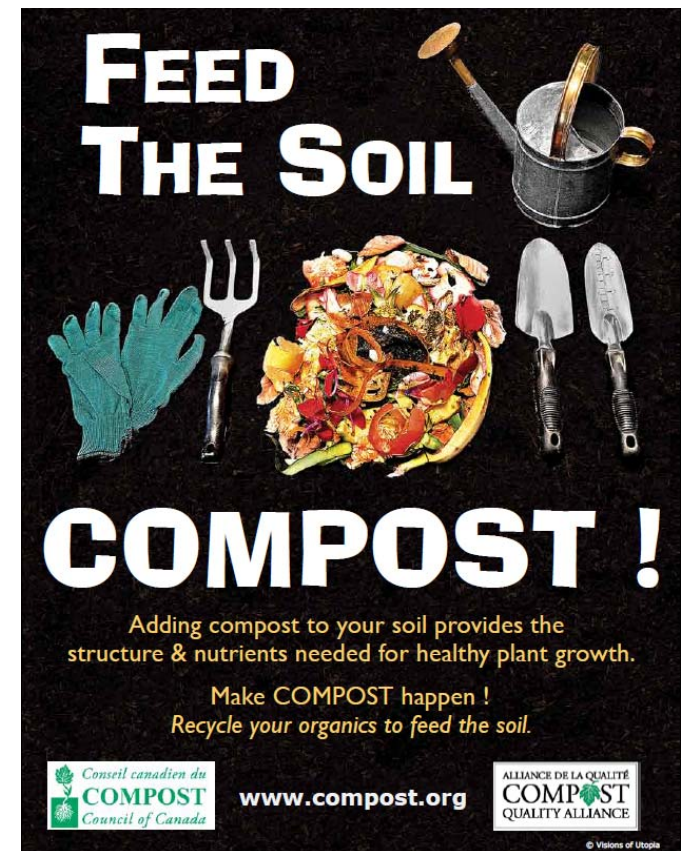


*(Pay Dirt: Composting in Maryland to reduce waste, create jobs, and protect the Bay, ILSR, 2013)*

# *Creates Compost*

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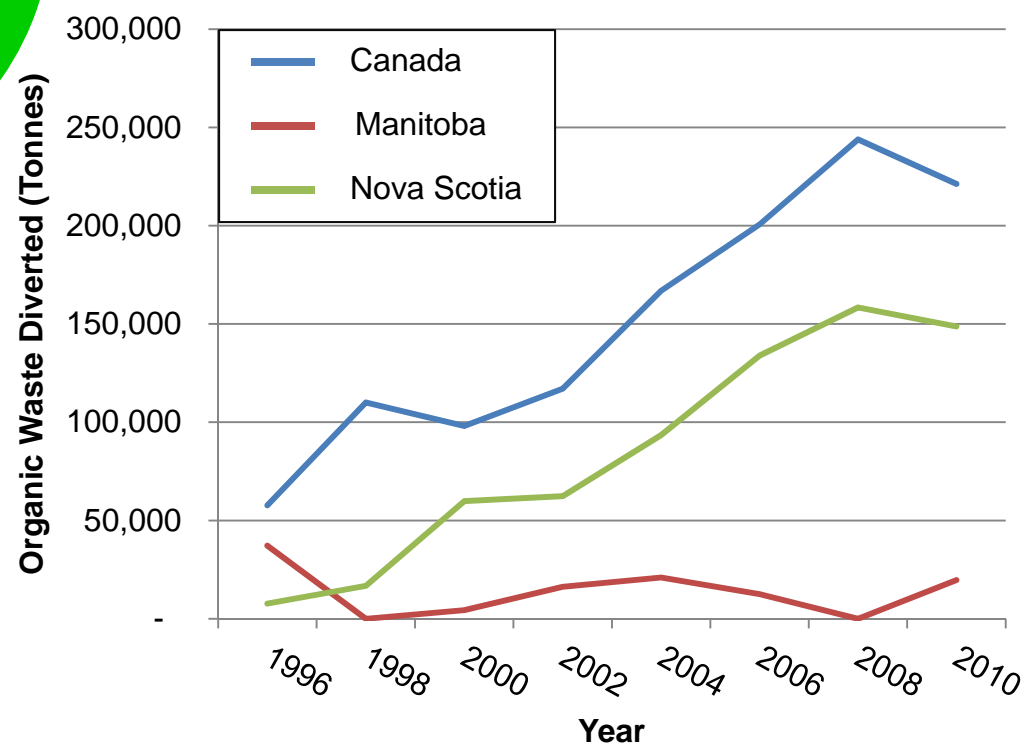
- Value-added product.
  - Gardening and horticulture
  - Turf establishment and maintenance
  - Tree mulching
  - Agriculture
- Adds organic matter, a diverse system of microbial organisms and stabilized nutrients to “feed the soil”.





# Organics Diversion

**Total Organics Diverted (1996 - 2010)**



Year	Canada (Tonnes)	Manitoba (Tonnes)	Nova Scotia (Tonnes)
1996	57,677	37,193	7,705
1998	110,029	-	16,751
2000	98,079	4,398	59,780
2002	117,079	16,261	62,341
2005	166,915	20,995	93,458
2006	200,646	12,490	133,934
2008	243,922	-	158,419
2010	221,248	19,672	148,750

\*Canada data is normalized



# *Manitoba Composts*

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- Announced June 2014
- Dedicated funding pool (up to \$1 million annually)
  - 1) Manitoba Composts Support Payment (MCSP)
  - 2) Project Funding - capital investment, research, marketing development, training, and demonstration.
    - Eg. Brandon Organic Waste Collection Infrastructure (\$300,000)
- Eligible for private and public compost facilities



## ***Manitoba Composts Support Payment***

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- Basis of payment for incoming organic materials:
  - \$10/ Tonne payment for processing > 2,500 Tonnes/yr of eligible organic materials.
  - \$25/Tonne payment < 2,500 Tonnes/yr (max \$25,000/yr)
  
- Eligible materials include:
  - Food waste
  - Leaf and yard waste
  - Clean chipped wood waste
  - Manure and bedding from ICI sources
  - Other materials approved upon registering





## *Manitoba Composts Support Payment*

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- Facilities must register and meet criteria:

- 1) Have standard operating equipment/infrastructure, personal protection equipment, and tools in place to actively process organic waste.

- Facility must be a composting site

- 2) Compliant with all necessary environmental approvals.

- Licence/permit requirements are site dependent (type of material composted, volume of material composted, location of site, intent to sell finished compost)
    - Protect ground and surface water, air quality, and nuisances
    - Contact Manitoba Conservation and Water Stewardship Environmental Approvals Branch to determine what environmental approvals are required
    - New regulations have been proposed for waste management facilities, may have implications for compost sites



## *Manitoba Composts Support Payment*

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- Facilities must register and meet criteria:

- 3) Certified compost facility operator.

- Will have up to one year after signing the agreement to get certified
    - Will be offered in Manitoba on a yearly basis
    - Either the Compost Council of Canada or SWANA certification will be accepted.

- 4) Within 2 years of signing agreement, produce compost that meets the Canadian Council of Ministers of the Environment (CCME) Category A parameters and/or compliance with Compost Quality Alliance (CQA) criteria, have compost tested at a CQA accredited laboratory.

- Compost Maturity
    - Pathogens
    - Foreign Material
    - Heavy Metals





## *Manitoba Composts Support Payment*

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- Facilities must register and meet criteria:

- 5) Within 2 years of signing agreement, have a plan for the use/distribution and/or marketing of the final product.

- Any compost sold must meet labelling requirements of Canadian Food Inspection Agency (CFIA) (T-4-120 Regulation of Compost under the *Fertilizers Act and Regulations*)

- 6) Report annually on tonnage of eligible organic waste processed and compost produced.

- Weigh scale is preferred, but volume to weight conversions are accepted



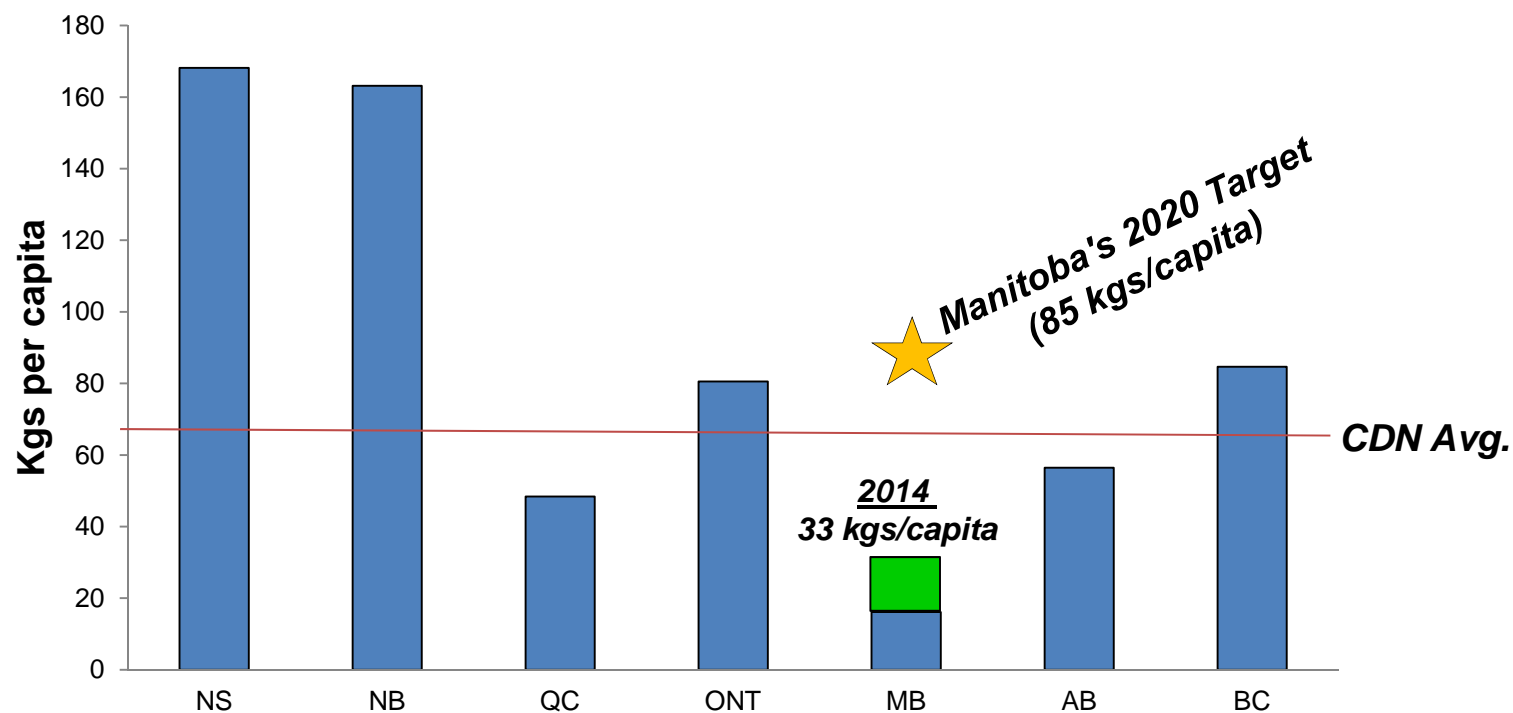
## ***Manitoba Composts-Year 1***

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- 8 compost facilities have registered
  - Will be receiving payment for organic waste processed from January 1- December 31, 2014
- Eligible organic material composted = 42,858 tonnes
- Total MCSP Payment = \$477,180

# Manitoba's Target

2010 Per Capita Organics Diversion



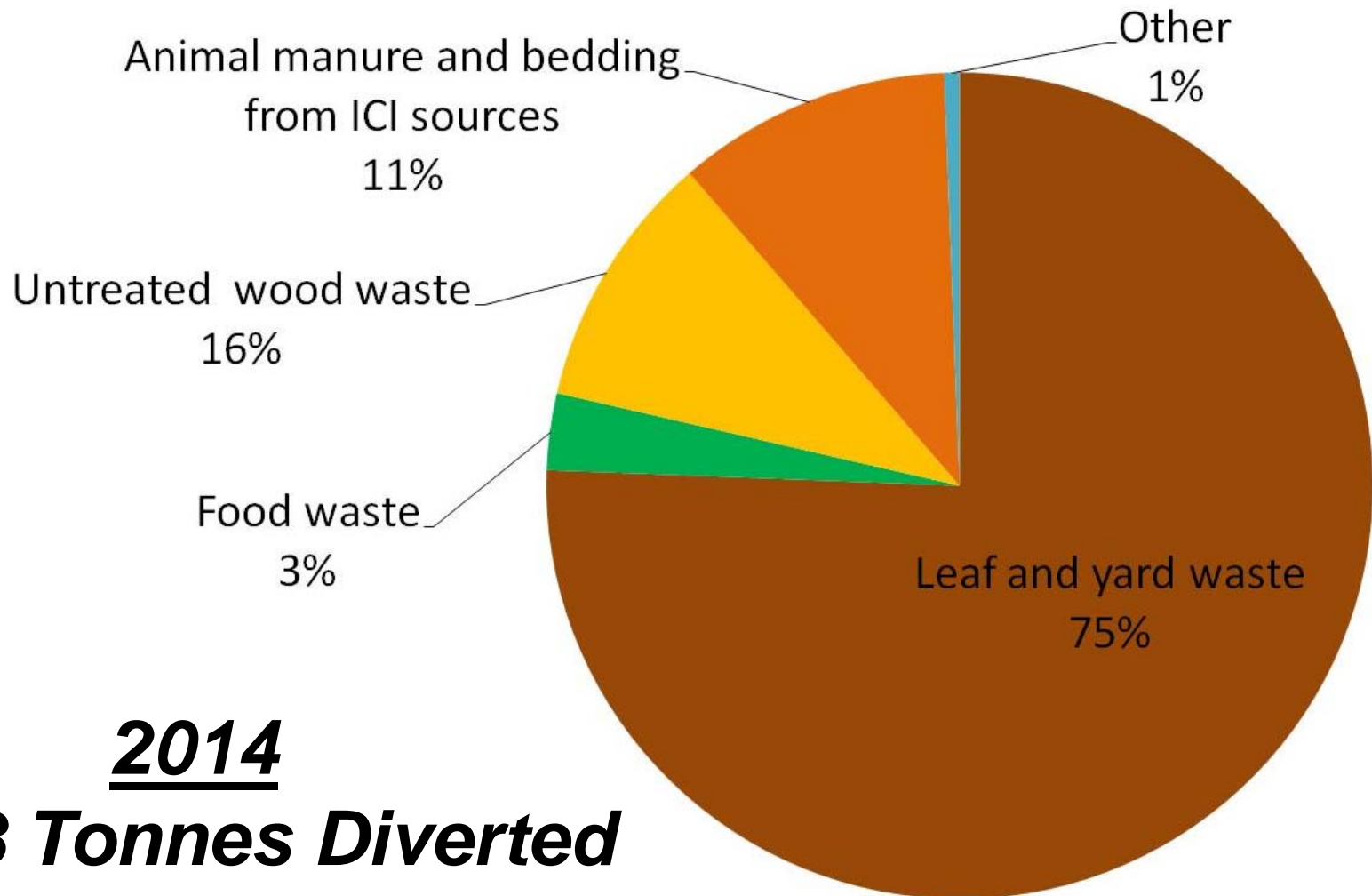
Statistics Canada, 2010

\*Data not available for SK, NL, NU, NT, PE, YT

- **Manitoba's 2020 Target: 100,000 Tonnes of organics diverted annually**

# *Types of Organic Waste Composted*

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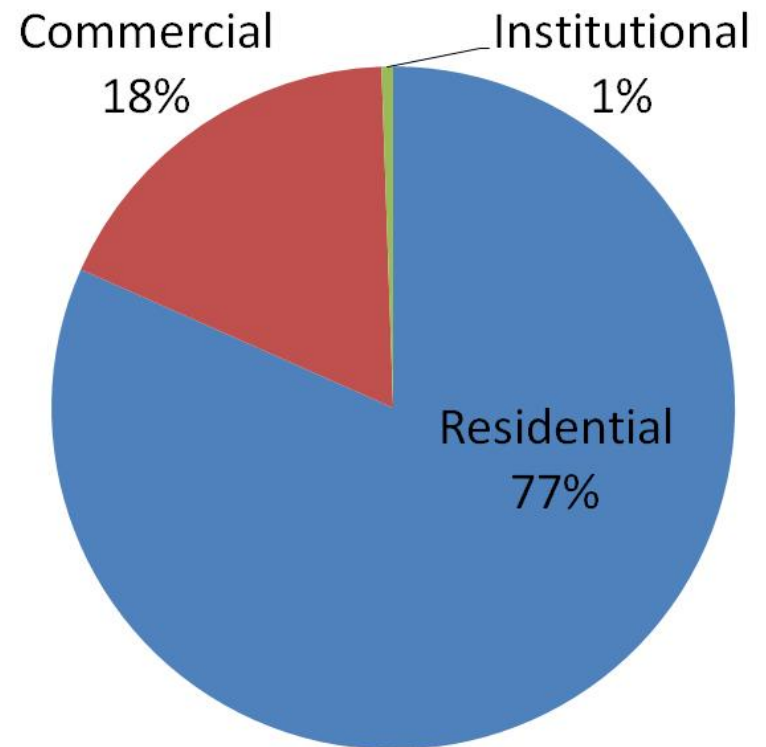
**2014**  
***42,858 Tonnes Diverted***

***Need to increase food waste reduction and diversion to reach target***

# Sources of Organic Waste Composted

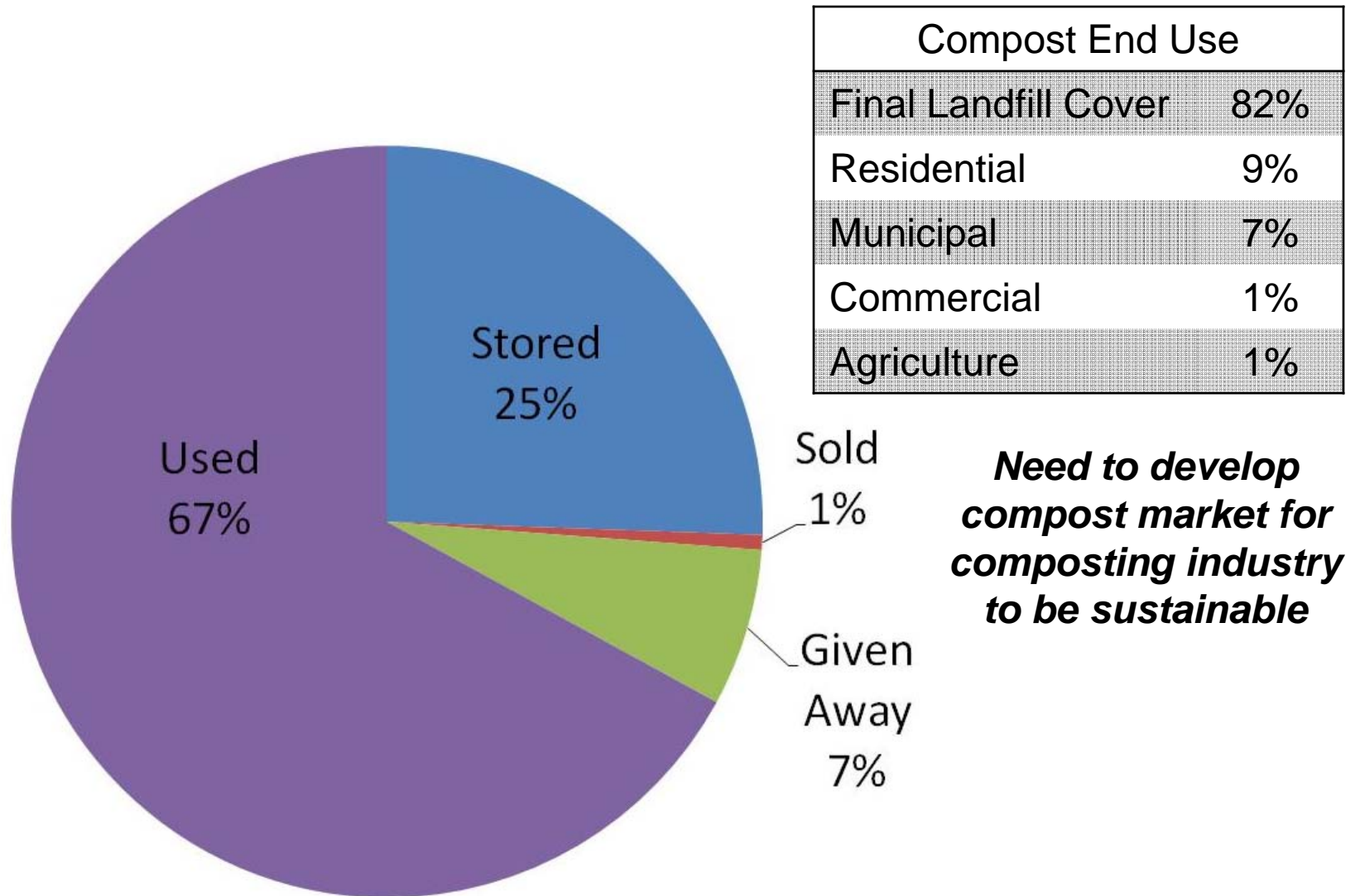
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- ICI waste makes up 50% of the total waste stream
  - Assume 30% organics
  - ~ 144,000 tonnes landfilled in MB
- Residential wastes is 30% of the total waste stream
  - Assume 40% organics
  - ~ 115,200 tonnes landfilled in MB





# *How Compost is Marketed and Where it is Being Used*



# *City of Winnipeg*

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- Prior to 2012, Fall leaf depots – 5,000 Tonnes/yr
- 2014 L&YW curbside collection – 30,000 Tonnes/yr
- Operating on new 9-ha site
- Biosolids composting pilot project (2015)
  - aerated bunkers



# City of Brandon

- In 2013, introduced voluntary SSO curbside collection
- In 2015, over 5,000 households participate
  - Capturing 27% of households, diverting average of 250kg per household
  - In total, diverting and composting 9,900 tonnes annually

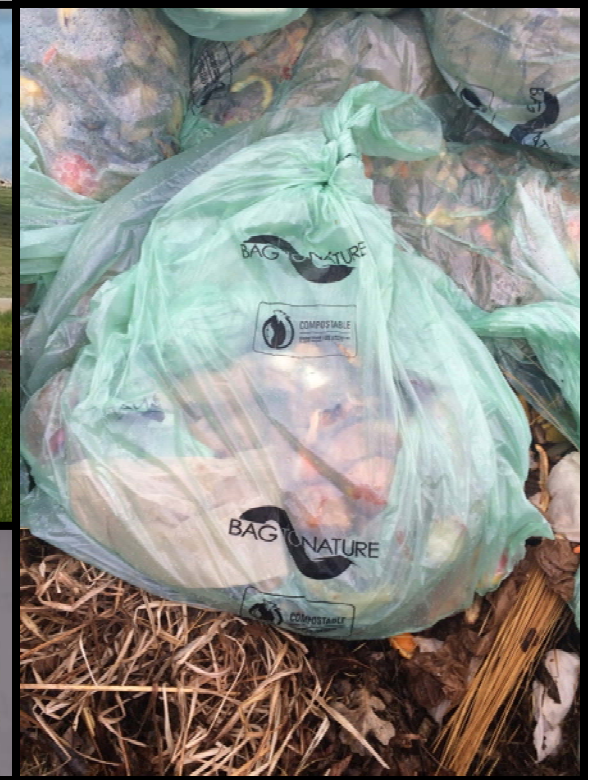




# City of Steinbach



The **PAPER TOWELS**  
In this bin will be  
Composted  
(This matter will go to an industrial composting facility where it  
can become part of the earth again.)



- Partnership with 8 schools in the Hanover School Division
- City of Steinbach composted ~ 600 tonnes and site is expanding

# ***Town of Carman***

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- 1,300 households in Carman received countertop containers
- Weekly SSO and L&YW curbside pickup





# *Progressive Waste Solutions*

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- Environment Licence (2013)
- Targeting ICI organic waste as well as residential in municipalities bordering Winnipeg area





# Penner Waste

- Commercial facility contracted by City of Winkler with service to ICI
- CQA member
- Marketing compost from Penner Waste site, 120km south-west of Winnipeg as well as Green Opportunities, location near Headingly





# *The Forks*

- Downtown on-site in-vessel system, 4 million visitors/yr
- Forks Market 60% organics (500 T/yr)
- University of Winnipeg contract (40 T/yr)
- Green Manitoba office (5 kgs/week)





# *Stoons n' Stuff Farm*

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- Partnership between City of Stonewall and on-farm composting site, leaf and yard waste
- Agriculture application of compost





# *Manitoba Composts-Next Steps*

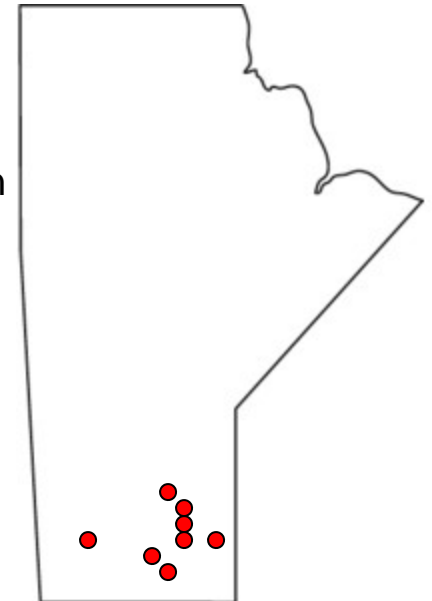
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## ○ 2013 Survey Follow-up

- Additional 50 managed composting sites
- Interest from 12 sites to register and potentially become eligible
  - Facilities processing in the range of 50-12,000 Tonnes/yr
- Also, 25 unmanaged sites collecting organic waste

## ○ Manitoba EcoDepot App

- Where to Drop-off Organic Feedstocks
  - Types of Feedstock, Availability, Contact Information
- Where to Pick-up Locally Produced Compost



# Manitoba Composts-Next Steps

- Encourage the inclusion of food waste from residential and ICI sectors to reach target diversion
  - \$25,000 to Winnipeg Harvest to conduct a waste audit and implement an organics diversion program





# Manitoba Composts-Next Steps



- Continue providing training and education opportunities as well as promotion
  - Organic Waste Management Webinar Series
    - Access through Compost Council of Canada Website
  - Sponsorship of Manitoba Communities in Bloom
  - Compost Facility Operators Training

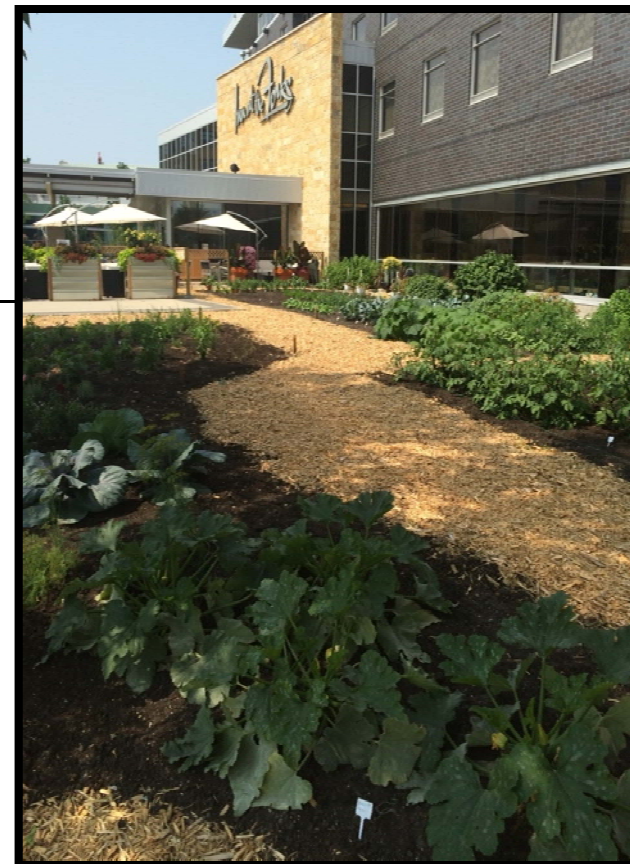
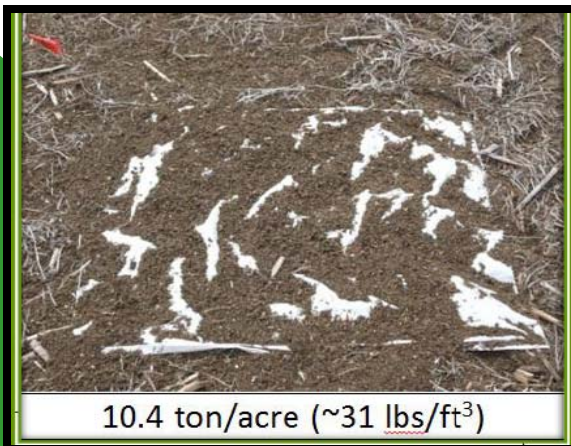
## Free Compost Webinars

Join us for our next free  
organics recycling webinar  
on  
**Wed November 5, 2014**  
**12 Noon (Central Time)**

For information on registering  
and an archive of  
past presentations and videos  
please click [here](#)







## Questions?

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