

# **Food Waste Recovery in North Carolina**

**A State Perspective**

**NC SWANA Spring Conference, 2013**

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# Overview

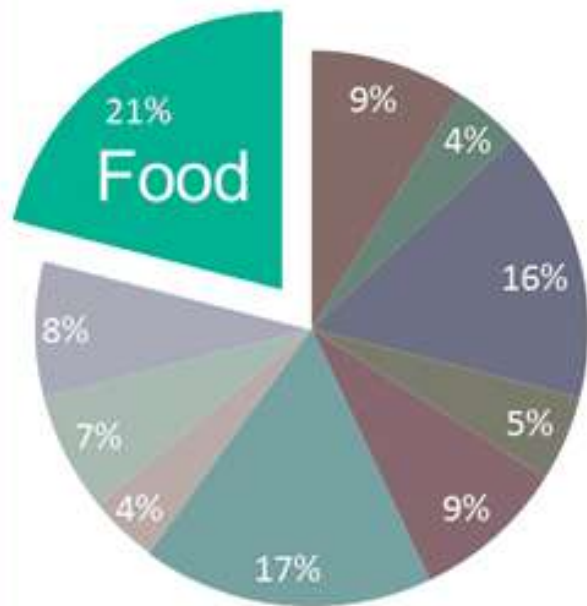
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- ◉ Food in the Waste Stream
- ◉ Reasons to Recover Food
- ◉ Food Recovery Hierarchy
- ◉ Growing Infrastructure in NC
- ◉ What's Down the Road?

# Food and Organics in the Waste Stream

Food makes up the largest percentage

of waste going into municipal landfills and combusted for energy recovery



■ Yard Trimmings      ■ Plastics  
■ Other                    ■ Rubber & Leather  
■ Paper & Paperboard   ■ Textiles  
■ Glass                    ■ Wood  
■ Metals

Data from the 2010 Municipal Solid Waste Characterization Report

- US generates 35 million tons of food waste/year (US EPA, 2010)
- 97% of that food is discarded in landfills or incinerators

# Food Waste in NC

Sector	Tons Per Year
Residential	673,362
Commercial	569,343
Total	1,242,705

~12% of overall MSW in NC

Source: North Carolina 2012 Food Generation Study, NC DENR

# Why Recover Food?

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## ◉ Environmental Benefits

- Reduce methane emissions from landfills
- Compost builds soil, improves water quality, reduces reliance on petro-chemical fertilizers
- Food waste puts the “PU” in putrescible – food recovery actually cleans up waste collection

## ◉ Economic Benefits

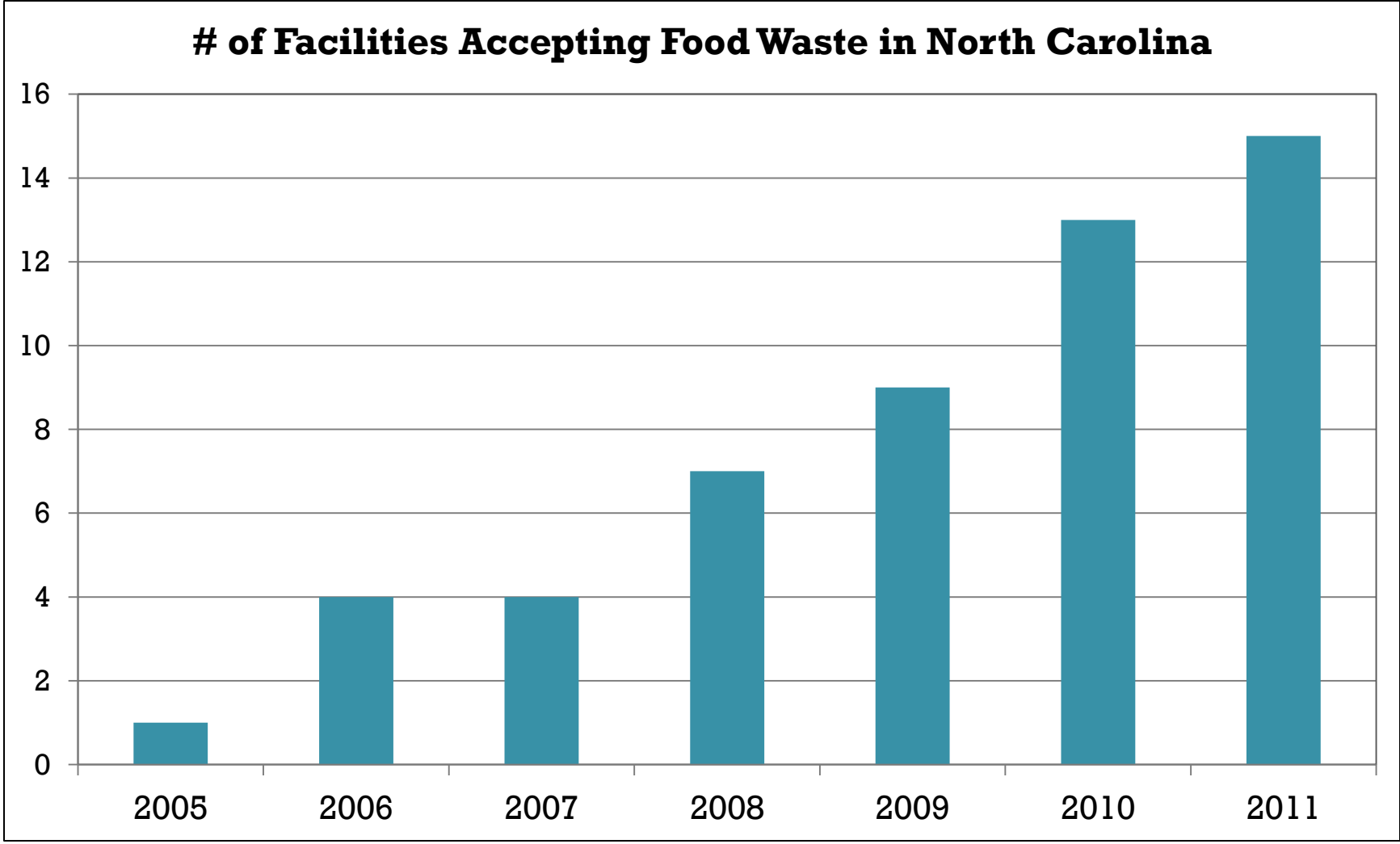
- Reduce disposal cost
- Reduce waste collection frequency
- Growing businesses to manage organic materials

# Management Options

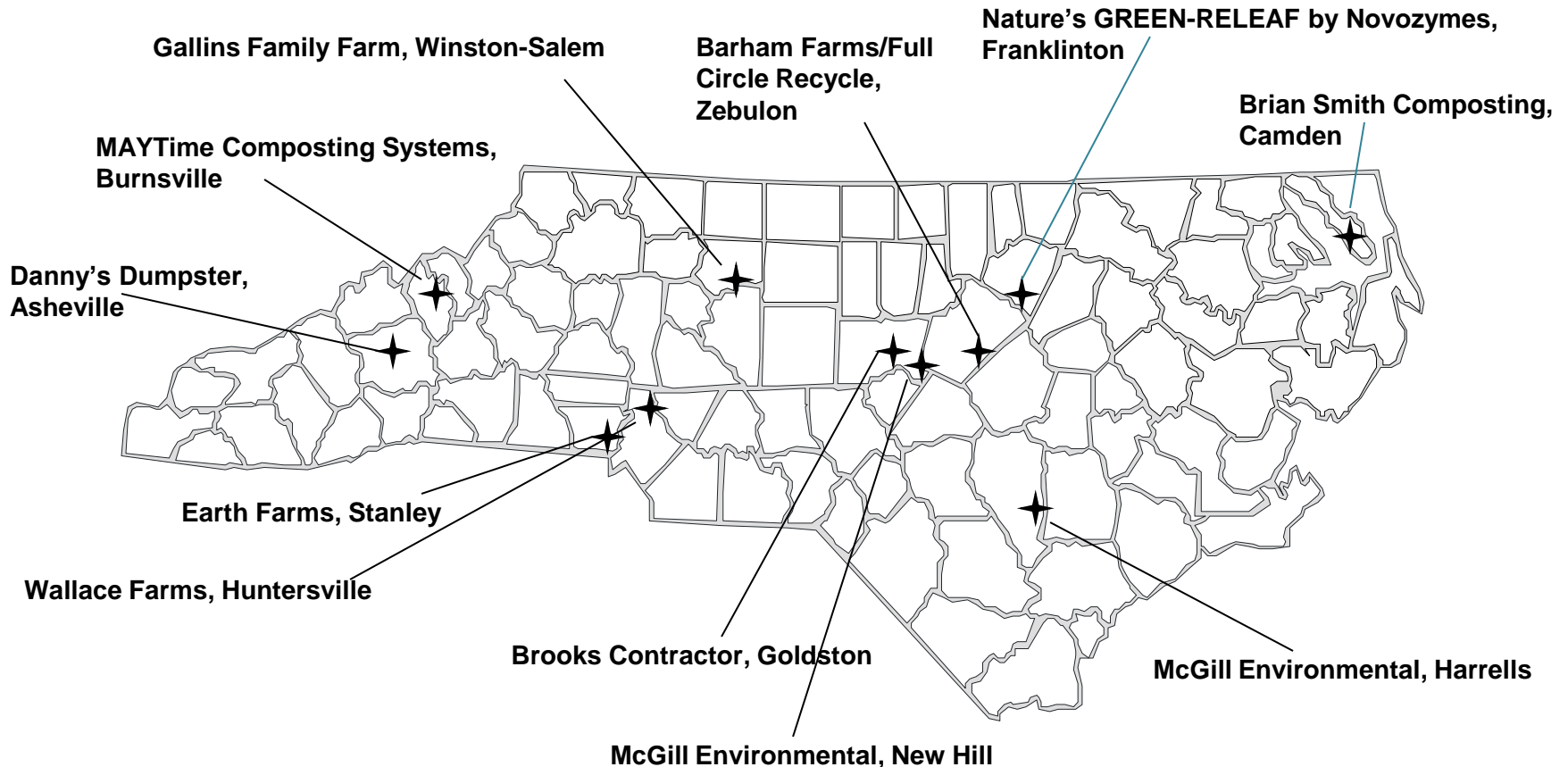
1. Source Reduction
2. Feed People
3. Feed Animals
4. Industrial Uses (i.e. rendering or bio-fuels)
5. Composting
6. Anaerobic Digestion
7. Landfill / Incineration



# Growth in Capacity



# Compost Facilities in North Carolina Accepting Food Waste



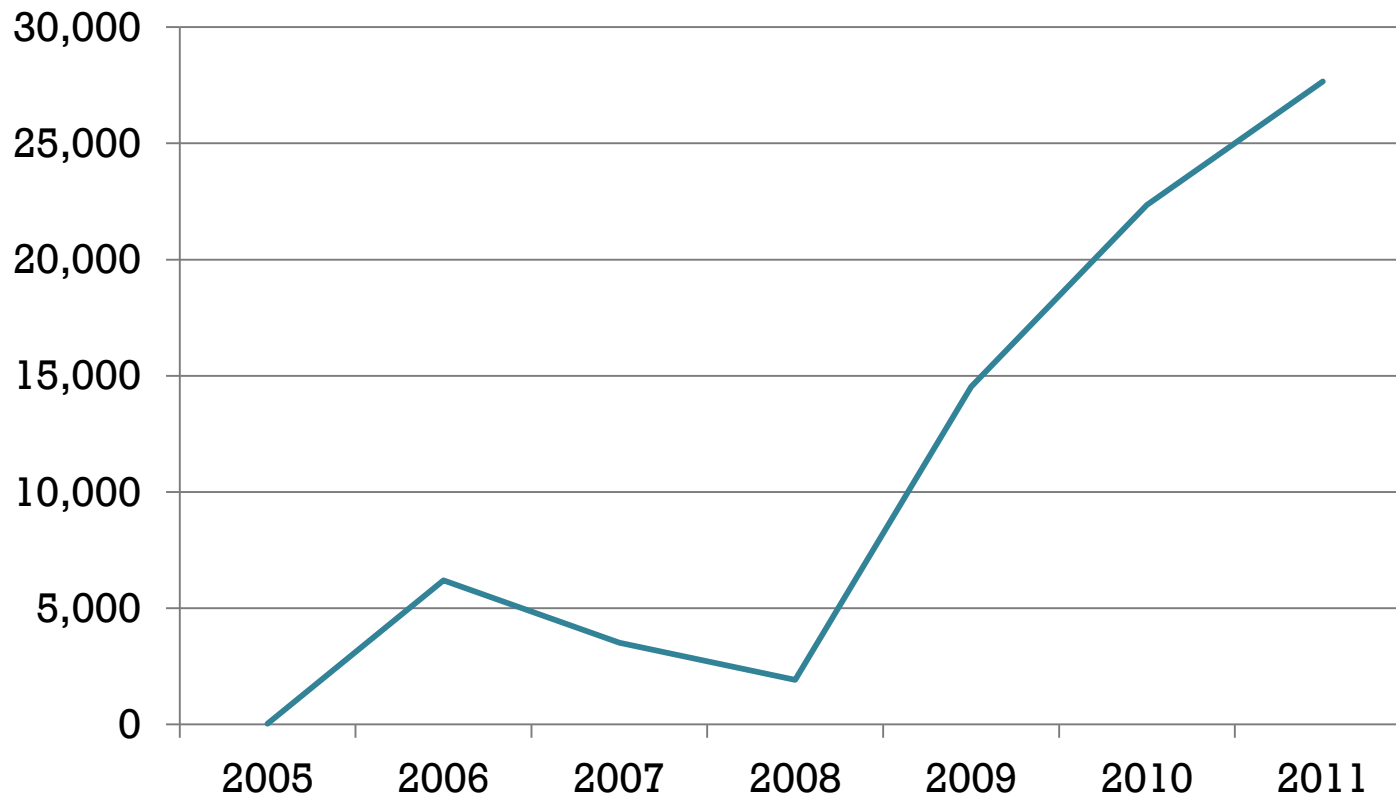
*\*Type III and IV compost facilities can accept food waste. Several other facilities not listed handle on-site generated food waste.*





# Food Waste Recovery @ NC Facilities

**Total Food Waste Received at N.C. Permitted Compost Facilities (Tons)**



# What's Next?



# More Facility-Based Systems

- Foster-Caviness, Charlotte
- Charlotte Douglass International Airport
- Colleges/Universities: Appalachian State, UNC-Asheville, UNC-Charlotte, UNC-Greensboro, Davidson College
- Correctional Facilities



# Food Waste Collections...

- Continued growth of private sector collections targeting commercial organics
- Residential Collections:
  - Subscription-based Collections Starting:
    - CompostNow – Raleigh
    - Zero Waste Today - Raleigh
    - 360° Compost – Charlotte
  - Public Residential Collection Programs:
    - More than 150 public programs collecting residential organics in US as of 2012 (BioCycle, January 2012)
    - Municipal organics collections coming soon to NC?

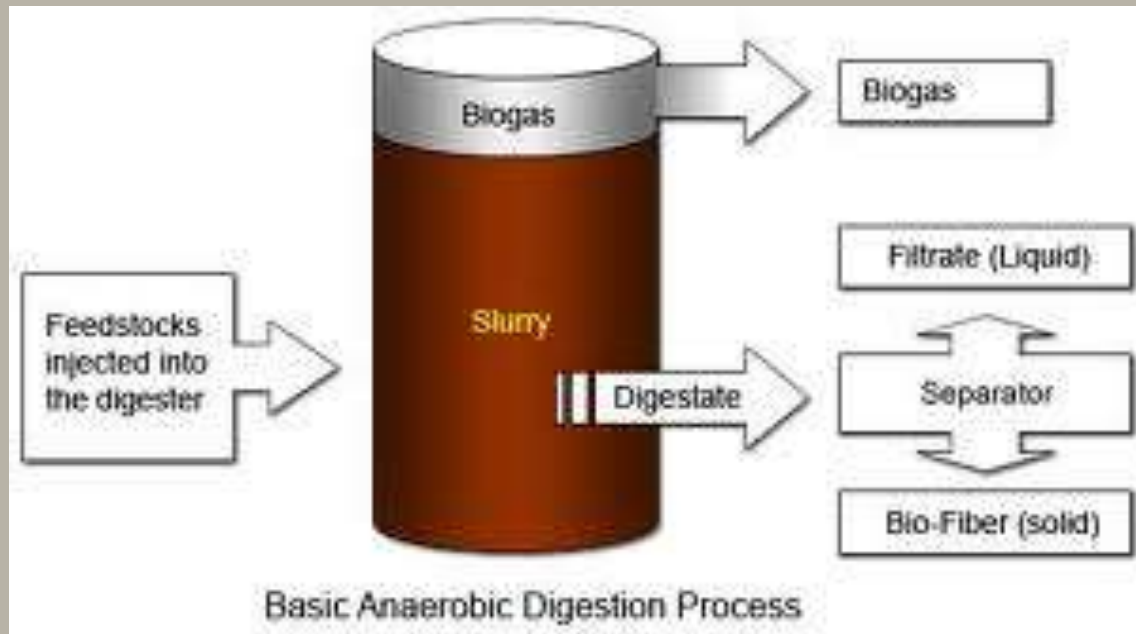
# NC Communities Exploring Food Waste Recovery

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- Orange County: operating commercial collections, building residential drop-off system (more soon)
- Other NC Communities:
  - Cabarrus County – creating public/private partnership to develop compost facility
  - Catawba County – studying Anaerobic Digester system with UNC-Charlotte
  - Mecklenburg County – comprehensive food waste study, March 2012
  - Raleigh – exploring commercial collection system for downtown
- Looking north and west for examples: Ann Arbor, Portland, San Antonio, Seattle, Toronto...

# Harvesting Energy Value

Looking to food and organic materials in MSW stream as energy feedstock for Anaerobic Digesters



# Full Circle Recycle, Zebulon

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Anaerobic Digester Accepting Food Waste

# Maybe One Day in NC?

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# Thanks

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