

# Food Waste Recovery in North Carolina

A State Perspective

NC SWANA Spring Conference, 2013

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# Overview

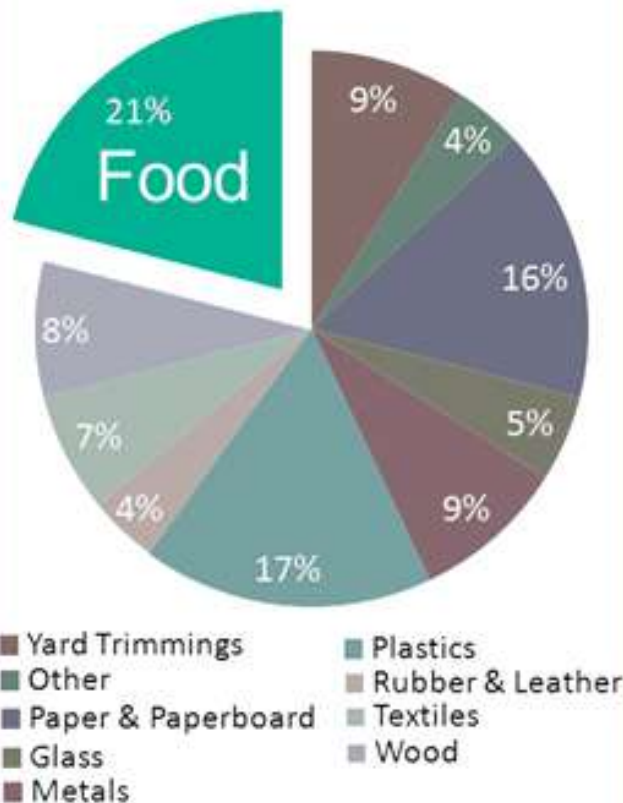
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- ◉ Food in the Waste Stream
- ◉ Reasons to Recover Food
- ◉ Food Recovery Hierarchy
- ◉ Growing Infrastructure in NC
- ◉ What's Down the Road?

# Food and Organics in the Waste Stream

Food makes up the largest percentage

of waste going into municipal landfills and combusted for energy recovery



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

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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

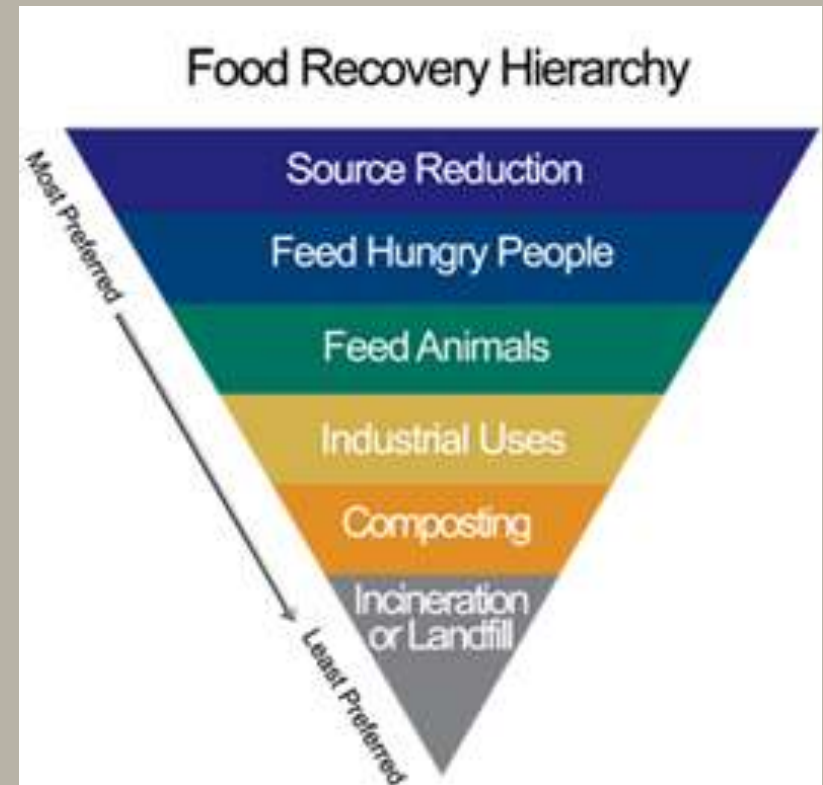
- Reduce methane emissions from landfills
- Compost builds soil, improves water quality, reduces reliance on petro-chemical fertilizers
- Food waste puts the “PU” in putrescible – food recovery actually cleans up waste collection

## ◉ Economic Benefits

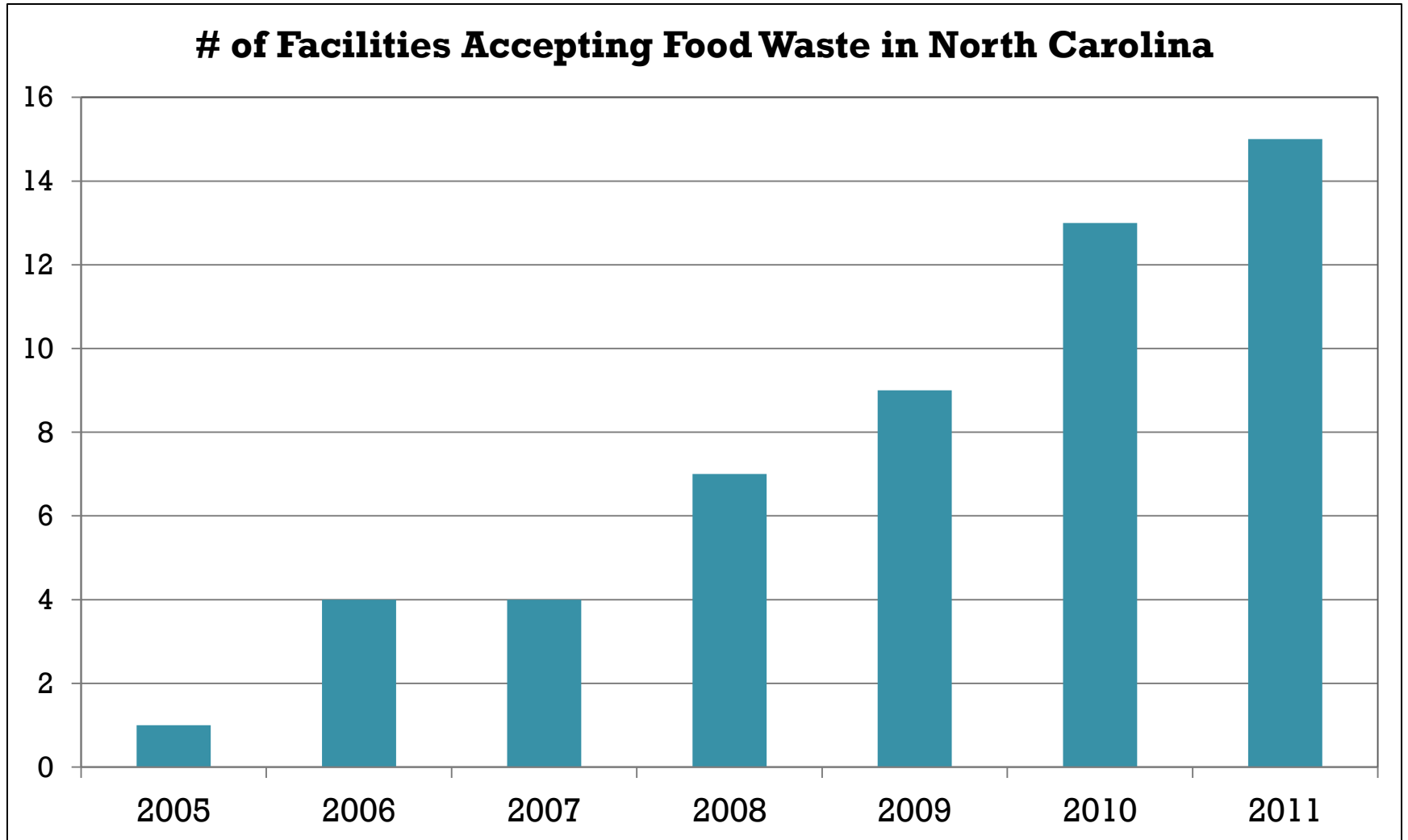
- Reduce disposal cost
- Reduce waste collection frequency
- Growing businesses to manage organic materials

# Management Options

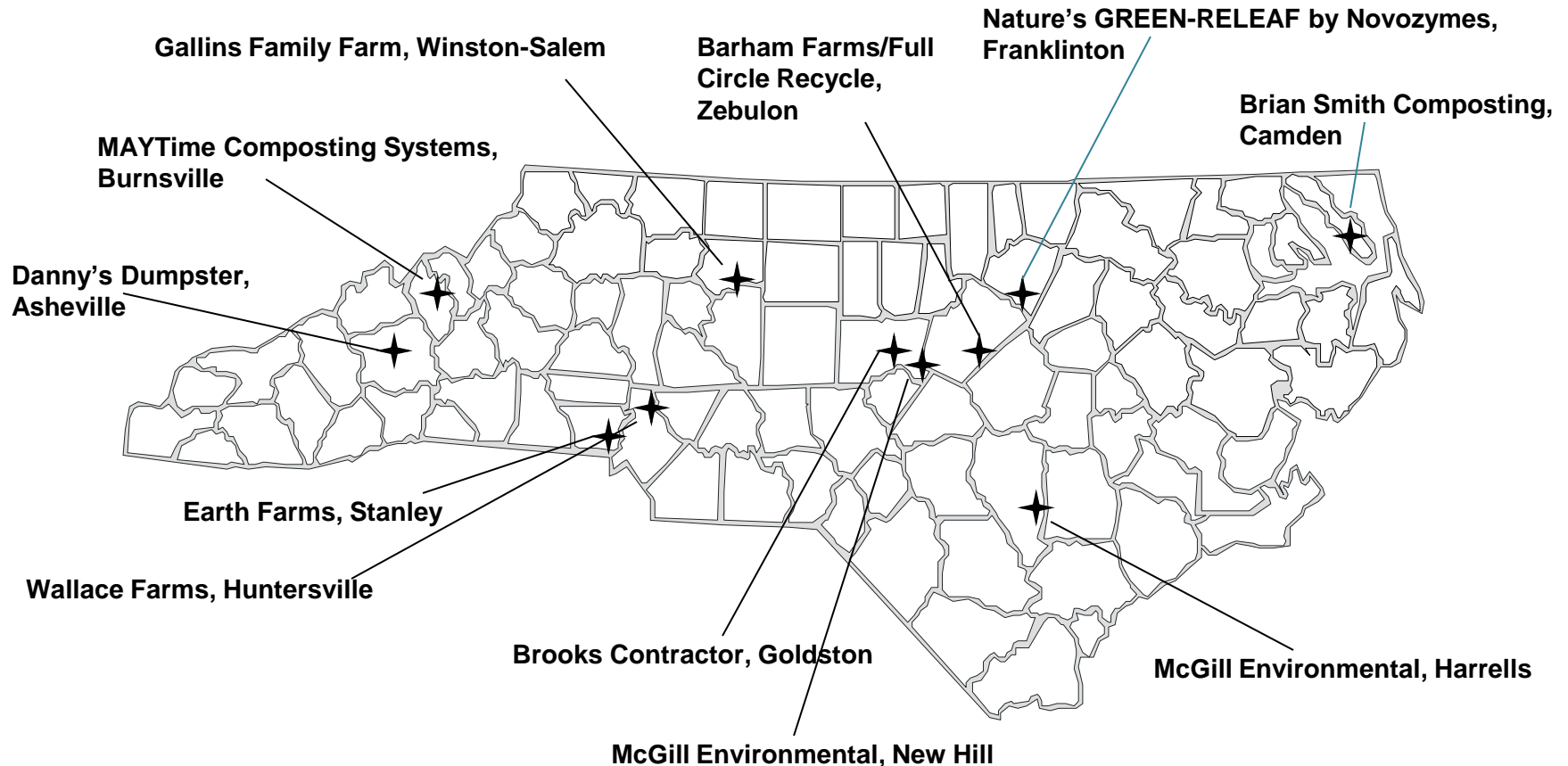
1. Source Reduction
2. Feed People
3. Feed Animals
4. Industrial Uses (i.e. rendering or bio-fuels)
5. Composting
6. Anaerobic Digestion
7. Landfill / Incineration



# 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.*

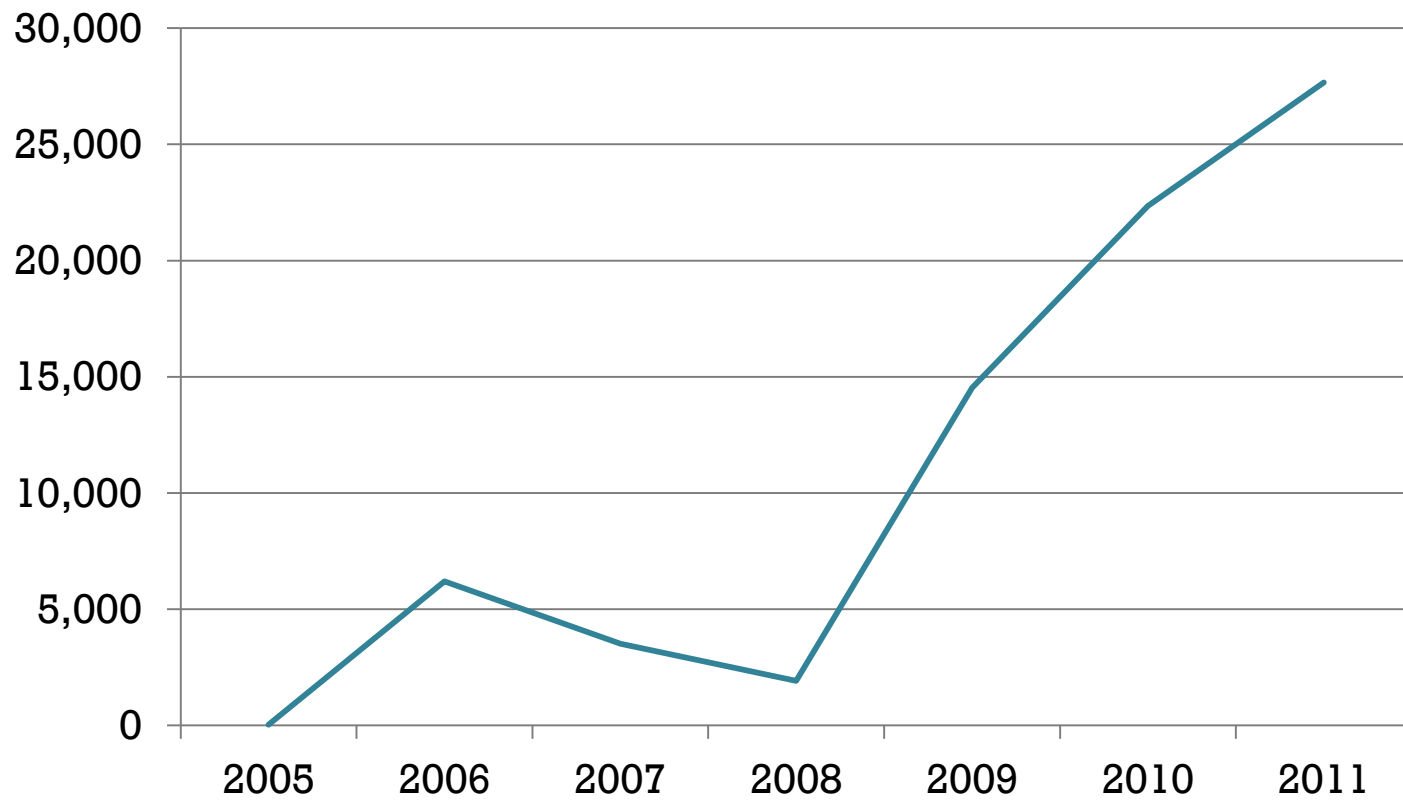


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# Food Waste Recovery @ NC Facilities

**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?



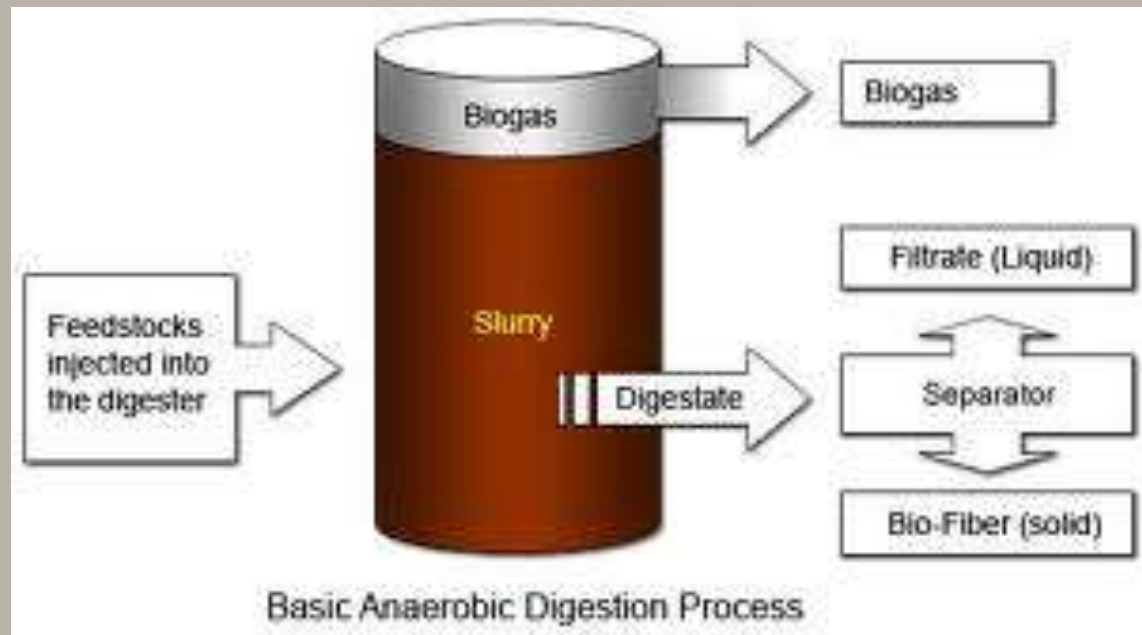
# NC Communities Exploring Food Waste Recovery

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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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**For More Information:**

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