OHIO FOOD SCRAPS RECOVERY INITIATIVE

NEWMOA
November 30, 2010
Webinar

Angel Arroyo-Rodríquez, RS, AICP
Objectives

• Reasoning for the Initiative
• Getting stakeholders involved
• Progress and achievements since 2007
• Next steps
• 2006 Grants
  – ODNR, Market Development Grant, $250,000, grinder with radial stacking conveyor and site preparation
  – USEPA Special Assistance Grant, $15,000, materials resource and processing capability study in northwest Ohio
Agency Partnership

- **OhioEPA**
  - Division of Solid & Infectious Waste Management
  - Office of Compliance Assistance & Pollution Prevention

- **ODNR**
  - Division of Recycling & Litter Prevention
Goal & Strategies

- Increase food scraps & organics diversion by:
  - Providing education
  - Identifying funding
  - Facilitating partnerships
  - Increasing infrastructure
  - Initiating regional projects
Statewide Stakeholder Meetings

- **September 2007**
  - Generators, farmers, composters, haulers, Solid Waste Districts, academia, regulatory partners and others

- **March 2008**
  - Haulers (large and small)

- **June 2008**
  - Composters (commercial and institutional)

- **November 2010**
  - Generators, farmers, composters, haulers, Solid Waste Districts, academia, regulatory partners and others
<table>
<thead>
<tr>
<th>Pre-meeting Preparation</th>
<th>Stakeholders</th>
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<tbody>
<tr>
<td>• Developed website</td>
<td>• Compost facility operators</td>
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<tr>
<td>• Guidance documents</td>
<td>• Anaerobic digester developers</td>
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<tr>
<td>– Benefits food scraps diversion</td>
<td>• Dept of Agriculture (CAFO permitting &amp; Animal Industries)</td>
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<tr>
<td>– Food composting regulations</td>
<td>• USEPA Region 5</td>
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<tr>
<td>• Catalogued available resources</td>
<td>• Ohio Grocers Association</td>
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<tr>
<td>• Identified stakeholders</td>
<td>• Livestock farmers</td>
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<tr>
<td>• Direct contact with all stakeholders</td>
<td>• Food banks</td>
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<tr>
<td></td>
<td>• WWTP operators</td>
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<td></td>
<td>• Biocycle</td>
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<td>• Universities</td>
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<td>• Zoos</td>
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Meeting Agenda

Food Scraps Recovery Stakeholders Meeting
Ohio EPA, 50 W. Town Street
Columbus, Ohio

Center for Excellence
September 19, 2007

9:00 a.m. – 9:15 a.m.
Welcome
Chris Korleski, Director
Ohio EPA

9:15 a.m. – 10:30 a.m.
Ohio’s Food Scraps Initiative
Angel Arroyo, Ohio EPA

National Food Scraps Initiative
Chris Newman, U.S. EPA

Ohio Grocers Food Scraps Initiative
Tonya Woodruff,
Ohio Grocers Foundation

10:30 a.m. – 10:45 a.m.
Break

10:45 a.m. – 12:00 p.m.
Roundtable Discussion

12:00 p.m. – 1:00 p.m.
Lunch (on your own)

1:00 p.m. – 2:30 p.m.
Rt. 250 Corridor (Sandusky) Food Scraps Composting Project
Sharon Barnes,
Barnes Nursery

Columbus Area Food Waste-to-Energy Project
Tom Kurtz,
Kurtz Bros.

Current Research for Food Scraps Recovery
Rick Mazur, Center for Innovative Food Technology

Funding Opportunities for Food Scraps Recovery
Chet Chaney, Ohio
Department of Natural Resources

2:30 p.m. – 2:45 p.m.
Break

2:45 p.m. – 3:45 p.m.
Roundtable Discussion

3:45 p.m. – 4:00 p.m.
Next Steps

This stakeholders meeting is designed to explore opportunities for the recovery of food scraps generated at businesses throughout Ohio.

The presentations will introduce ideas essential to food scraps recovery and be followed by open discussion.

The exchange of ideas will provide useful information, such as barriers, that will assist stakeholders in developing successful projects.
<table>
<thead>
<tr>
<th>Roundtable Questions</th>
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<tbody>
<tr>
<td><strong>Morning Session</strong></td>
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<tr>
<td>• “To what extent has your company or facility looked at food scraps diversion?”</td>
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<td>• “What are the benefits of recovering foods scraps for your industry?”</td>
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<tr>
<td><strong>Afternoon Session</strong></td>
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<td>• “What would prevent you and/or Ohio from effectively diverting food scraps?”</td>
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<td>• “What are the next steps for promoting food scraps diversion?”</td>
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<td>• “What role should Ohio EPA and ODNR have?”</td>
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<td>Main Barriers</td>
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<td>-------------------------------------------------------------------------------</td>
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<td>• Not enough facilities (high transportation cost)</td>
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<td>• Lack of a hauling infrastructure</td>
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<td>• Operational concerns (generator &amp; facility)</td>
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<tr>
<td>• Lack of adequate equipment / technology</td>
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<td>• Deficient / disjointed regulations</td>
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Food Scraps Recovery Initiative: 2020 Vision
Stakeholders Meeting
November 16, 2010
The Columbus Zoo & Aquarium • Powell, OH

8:30 a.m.  Registration & Networking

9:00 a.m.  Welcome
The Columbus Zoo & Aquarium
Chris Korleski, Director, Ohio EPA
Sean Logan, Director, Ohio DNR

9:30 a.m.  Food Scraps Diversion on the National Stage
National Trends; Nora Goldstein, BioCycle
Industry Trends, John Connolly,
JF Connolly & Associates

10:10 a.m.  Ohio: What’s New Since 2007?
Review of new facilities, mapping capabilities,
generators and transporter trends, regulatory
changes and available grants

10:40 a.m.  Break & Networking

11:00 a.m.  Featured Projects Lightning Round
Examples of organics diversion in the
hospitality, residential, retail, grocery,
institutional and event venue sectors

11:45 a.m.  Lunch & Networking
Lunch provided

12:30 p.m.  Increasing Diversion
The Ohio Food Scraps Recovery Network
Terrie TerMeer, ODNR & Tonya Woodruff, OGF

2:00 p.m.  Roundtable Discussion
What’s holding us back?
2020 Vision

2:30 p.m.  Next Steps

3: 00 p.m.  Adjourn
Ohio: What’s New Since 2007?

Food Scraps Recovery Initiative: 2020 Vision
Stakeholders Meeting
November 16, 2010
Class II Composting Facilities

5 in 2007
(2 non-commercial)

23 in 2010!!
(7 non-commercial)
Non-commercial
Commercial

- 3 pre-2007
- 1 non-commercial to commercial
- 3 new
- 9 upgraded to class II
Commercial Composting Facilities
“Dry Batch” Anaerobic Digestion & Aerobic Composting
Partnerships: Grocery Composting Pilot Project
Partnerships: Regional Stakeholder Meetings & Projects

• Spring 2008
  – Cincinnati area, SWMD meetings
  – 2 facilities added

• Winter 2009
  – Central Ohio Task Force / MORPC
  – 1 facility added
  – Hyatt Capitol, Eartha Ltd, other developing interests

• Spring 2009
  – Cleveland Green Venues Project
2006
Food vendors

2007-2010
Food vendors & patrons
Resources & Training
Regulatory Changes & Assistance

- Sewage Sludge Rules
  - Will allow adding food scraps
- Composting Rules
  - Less requirements for on-site
- Coordination ODA-CAFO rules
- Developing waste-to-energy rules & policies
- Legislation
  - No fees for all organics diverted
Generators: Commercial Sector

- Up to 70% organics!
  - Grocery stores
  - Hotels
  - Restaurants
  - Hospitals
  - Government agencies
  - Zoos
  - Schools
  - Arenas
  - and so on...
Generators: Residential

- City of Huron
- Village of Luckey
- Dayton & Montgomery County
Transportation Trends

• National Hauling Companies

• “Niche” haulers

• Compost/AD facilities combined service
2007

- Quasar, $250K, AD’s combined heat & power unit & control panels
- Ohio University, $250K + $50K College & University Grant, in-vessel composting
- Youngstown SU, $4,200, College & University Grant, expand composting storage area

2008

- Sagamore, $250K composting equipment
- Paygro, $245K, collection truck
- NAT Transportation $250K, AD, Returned
2009

- Fultz & Sons, $134,147, truck for residential food waste collection
- Sherrington Foods / “Marvin’s Organic Gardens”, $250K, equipment

2010

- Waste Management (Cuyahoga Landfill), $76,500 conveying system, skid-steer composting facility
- Rosby Resource Recycling, $250K, windrow turner
MAPPING SOURCES AND SOLUTIONS FOR FOOD SCRAPS

Ohio EPA, in collaboration with ODNR and U.S. EPA Region 5, has been working with stakeholders to develop and implement food scraps recovery projects. In many cases, communities and businesses have launched food scraps recovery programs on their own. Since 2009, City of Huron (Erie County), Village of Luckey (Wood County), Fairborn (Greene County), West Milton (Miami County), and Miami Township (Montgomery County) residents have been offering food scraps collection along with their yard waste collection. The Kroger Company has diverted more than 3,500 tons from Ohio landfills and this material has been converted into a nutrient-rich resource. Cleveland venues including Browns Stadium, Cleveland Metroparks Zoo, Progressive Field, and Quicken Loans Arena began collecting and sending food scraps to area composting facilities. Colleges, universities, and other organizations continue to compost on site, when available as an option. Oftentimes, interested communities and businesses are unaware of opportunities and resources available to begin recovering food scraps.

Ohio EPA and U.S. EPA Region 5 have developed a map to offer a visual display of opportunities to many communities, businesses, and other organizations that are interested in recovery food scraps. Since the launch of Ohio’s Food Scraps Recovery Initiative in 2007, the infrastructure of composting and anaerobic digestion facilities has developed considerably and offers most regions of the state an alternative solution to landfills. The map includes the location of all licensed composting facilities authorized to accept food scraps and rings to display varying distances that may affect the economic feasibility of a program. Supermarket locations for various grocers illustrate the opportunities that exist in just this industry alone. The map also includes supermarkets currently participating in food scraps recovery programs.

This map is intended to assist communities and businesses in identifying opportunities to recover food scraps by displaying local solutions and existing programs. Communities and businesses that are participating in food scraps recovery programs and want to be included in this map are encouraged to forward their information to angel.arroyo@epa.ohio.gov. For more information about food scraps recovery, please contact the Division of Solid and Infectious Waste Management at 614.644.2621.

Check out the following features:
- Food Scraps Composting and Anaerobic Digestion Facilities
- Distances from your location
- Driving directions from your location
- Existing Food Scraps Recovery Programs
- Local Food Banks

Right click HERE or on the image to download the .kmz file (right click and save the link) and view the Map in Google Earth.

If you don’t have Google Earth installed on your computer, you
Ohio Compost Information

This KML file includes publicly available datasets of food scrap composting facilities, large food scrap producers, and associated datasets to increase composting in Ohio.

The file shows the locations of compost sites, landfills, transfer stations from the Ohio EPA (2009-2010). This file also shows the location of public venues (primarily sporting arenas) from the U.S. Department of Homeland Security HSIP Freedom dataset (2007). The Solid Waste Districts data layer is based on the map published by the Organization of Solid Waste Districts of Ohio website (2009). The retailers and large corporate grocers data layer was gathered from respective company websites (2010).

This file was created on June 10, 2010 by a partnership of the U.S. Environmental Protection Agency Region 5 office and the Ohio Environmental Protection Agency.

For questions about this file or the referenced data, please contact Joe Goicochea at joe.goicochea@epa.state.oh.us, Angel Arroyo-Rodriguez at angel.arroyo@epa.state.oh.us, or Chris Newman at newman.christopherm@epa.gov.
Food Waste Composting: Downtown Cleveland & University Circle efforts and backyard composting
(Downtown) Clev Composting Timeline

• 4/30/09: NEO Compost Summit at E4S (www.e4s.org)
• 7/30: FCE internal meetings with restaurant tenants
• 9-10/09: Pilot planning meetings
• 11 – 12/09: Pilot program
• 12/9/09: Composting company presentations to pilot participants
• 1/11/10: RFP released
• 4/10/10: Browns, Progressive Field, Q, Forest City, others Composting on permanent basis!
Pilot Participants

- Tower City Center (7 tenants)
- Quicken Loans Arena
- GSA (Courthouse Cafe)
- Constantino’s Market
- Great Lakes Brewing Company
- URS
- Flannery’s
- Cleveland Metroparks Zoo

Composting everything but plastic, glass, metal
University Circle composting efforts

• Cleveland Clinic Foundation (CCF):
  • Largest employer in Ohio
  • 3,000 lbs./week to a class II facility & growing…

• University Hospitals (UH)
  • 3,192 lbs./week to Rosby

• Cleveland Botanical Garden worked with OH EPA to make sites compliant
Recycle and Compost at Work:
www.zerowasteneo.org
### Questions

- Categorize barriers as:
  - No longer a barrier
  - Significant progress, but there’s work to be done
  - No progress made and still a barrier
- If still a barrier
  - What needs to happen to eliminate barrier?
  - Potential solutions?
  - Who should lead the way in implementing solutions?

### General Responses

- Disposal infrastructure becoming less of a barrier
- Regulations not a barrier for most part
- Transportation still main barrier
- Education efforts crucial to overcome barriers
### Questions

- What achievable goals should Ohio aim to attain in the next 10 years? (What will be our vision for 2020?)

- What achievable goals should your industry or sector aim to attain in the next 10 years? (What will be your vision for 2020?)

### General Responses

- Ban organics from landfills
- 100% diversion by hotels and grocers
- More energy recovery
- Increase on both regional and local solutions
Next Steps

• Develop an organics diversion goals and strategy guidance for Ohio

• Annual stakeholders meeting

• Educational opportunities (webinars)

• More stakeholder engagement opportunities
Diversion Rates

- 2006 – 2009: 225% increase
- 2008 – 2009: 25% increase

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<th>Year</th>
<th>cu. yds.</th>
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<tbody>
<tr>
<td>2005</td>
<td>44,665</td>
<td>14888</td>
</tr>
<tr>
<td>2006</td>
<td>35,149</td>
<td>11716</td>
</tr>
<tr>
<td>2007</td>
<td>58,847</td>
<td>19616</td>
</tr>
<tr>
<td>2008</td>
<td>68,017</td>
<td>22672</td>
</tr>
<tr>
<td>2009</td>
<td>90,572</td>
<td>30191</td>
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THANKS!

www.epa.ohio.gov/dsiwm

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