Organics in Florida: Part I

"The State of Organics in Florida"

May 11, 2016
• All attendees are in “listen-only” mode
• Please use the “Questions” tab to submit a question
• Questions will be answered at the end of the presentation
• The presentation and other material are available in the “Handouts” tab
• This session is being recorded and will be available on the DEP website for sharing
• Please complete the survey after the webinar
Agenda

• Kim Brunson
  • Publix Super Markets

• Frank Franciosi
  • US Composting Council

• Jay Bassett
  • EPA Region 4

• Miriam Zimms
  • Kessler Consulting

50% by 2015
60% by 2017
70% by 2018
75% by 2020
Who & What Are We?

The US Composting Council (USCC) advances compost manufacturing and promotes compost use to enhance soils and provide economic and environmental benefits for our members and society.

Compost: Nature’s Way To Grow!
Vision Statement
We believe that the recycling of organic materials is central to achieving healthy soils, clean water and a sustainable society.
Areas of Engagement

• Education
  • Annual Conference
  • Composter Training Program

• Market Development
  • Seal of Testing Assurance
  • Consumer Use Programs

• Advocacy
  • State Policy Support
  • National Issues

• Membership
  • Communication
  • Database
  • Organizational Management
  • State Chapters
Educational Activities

- Compost Operations Training Course - 7th Year
  - Over 1,000 students from 23 states and three countries
  - 2015 In CA, VA, NC and FL
  - 2016 In CA, NY, NC and AZ
  - 2016 Certified Compost Operation Manager (CCOM)

- 2015 Compost Technician — GA
- 2015 Expanding to Food Scraps on a Farm — IA
- Specifying compost — CA
- Composting with Forced Air — CA
- One webinar — The role for Compostable Plastics in diversion
Advocacy Activities – 2015

Federal and National Issues

• Supported federal legislation targeting food waste
  • Maine & Minnesota
• Persistent Herbicides
  • Meeting with EPA re: re-registration process
  • Produced “Composter’s Guide to Persistent Herbicides”
• Compostable Products
  • Expanded CP Toolkit with grant from USDN
  • Conducted Webinar on role of CP in diversion programs
• Summit participation
  • NRC Sustainable Materials Management (June)
  • EPA Food Recovery (SC-November)
• Supported International Year of Soils
The US Composting Council Chapters is a vital partner to its chapters as the national organization providing coordination, visibility and access to national resources. As such, chapters recognizes their responsibility to the USCC to promote national membership growth, in local support of national promotions such as International Compost Awareness Week, encourage market development and use of STA/Certified compost, and to assist the national organization. As such, chapters recognizes their responsibility to the USCC to promote national membership growth, regional training and national conferences and other programs benefiting the compost industry.
Model Rules Template for State Regulations

www.compostingcouncil.org

State Regulations by State Map:

• http://compostingcouncil.org/state-compost-regulations-map/

Model Rules Template:

Strategic Partnerships

• American Hort
• BioCycle
• IECA
• KAB
• National Foundation to End Senior Hunger-(NFESH)
• BPI
• Kimberly Clark Professional
• Soil Science Society of America
A GUIDE TO WORKPLACE COMPOSTING

Nature’s Way to Grow!
Online Resources

- A Guide to Workplace Composting
  - http://compostingcouncil.org/workplace-composting/
- Compostable Plastics Toolkit
  - http://cptoolkit.org/
- Curb-to-Compost Toolkit
  - http://compostfoundation.org/c2c
- Fact Sheets & Free Reports
  - http://compostingcouncil.org/factsheets-and-free-reports/
Composting Council Research & Education Foundation

- Received second $75,000 grant to continue development of Certification Program from the 11th Hour Project
  - Develop test questions and administrative procedures
- Planning for transfer of Composter Training Program from USCC to CCREF
- Compostable Plastics Tool Kit Upgrade
- Scholarship program
- International Compost Awareness Week-ICAW
Market Development Activities

- Updated Compost: The Sustainable Solution
- Completed TMECC review & revision
- Created and introduced STA “Certified Compost”
Market Development Activities

- Contracted with Joe Lamp’l (Growing a Greener World) to expand our outreach efforts nationally
Introducing Certified Compost®
USCC STA
Participants are: Compost Manufacturers!
Seal of Testing Assurance

2015 Program ‘Stats’

Companies in the STA Program = 234
Compost Products = 298
Compost in the STA Program = Over 4 million tons or Approx. 8 million cy’s

Labs in STA Program = 11
States with STA participants = 39
Florida has 11 STA Participants
Seal of Testing Assurance
Compost ONLY!

CURRENT State Agencies Requiring STA Compost ONLY

AKDOT · CalTrans · CODOT · FLDEP
· MNDOT · NCDOT · NYDOT · ORDOT
· SCDOT · TXDOT WIDNR · WIDOT
· WSDOT
Creating Demand for Infrastructure

- Policies and legislative action demanding soil restoration in conjunction with stormwater management.
  - Model Ordinances for Soil Restoration
  - Stormwater BMP’s
  - Low Impact Development
  - Green Infrastructure (USGBC) LEED Certification
  - DOT (use of STA Certified Compost)
Call for abstracts-May 2016
Waste Reduction/Recycling

Jay Bassett

US Environmental Protection Agency
EPA’s Call to Collective Action to Meet the U.S. 2030 Food Loss & Waste Goal
The Cost of Wasted Food

Methane
(a very strong greenhouse gas)
produced from food and garden
waste kept in anaerobic conditions.

Compactor
Removes air in the landfill to
save space which creates an
anaerobic environment.

Landfill
Food scraps and garden waste create acids in
anaerobic conditions and pollutes groundwater.

Leachate
Soaks into the surrounding ground
and contaminates the groundwater.

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW
What a Waste

- Food loss & waste valued at $161.6 billion
- 21% of the nation’s waste stream; 35 million tons
- 5% capture rate
- Production consumes 80% of the nation’s water and half our land.
- Yet, 48 million Americans are food insecure.

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW
On September 16, 2015, US EPA Deputy Administrator Meiburg and USDA Secretary Vilsack announced the United States’ first-ever national food waste reduction goal - Reduce wasted food by 50% by 2030.
Paris Agreement

The agreement was to limit global warming below 2 °C by 2100. 196 parties made pledges in an international agreement at the United Nations Conference of the Parties 2015 (COP21) to reduce greenhouse gas emissions.

Under current policies, the U.S. is not projected to fully realize its pledge by 2025. The U.S. will fall short of its pledge by 0.36-0.57 billion tons of CO₂ in 2025.
250 leaders from across the country

Over 80 presentations
Focus Areas

- Increase public awareness
- Improve data
- Form and strengthen partnerships
- Clarify date labels
- Build infrastructure
- Seek prevention strategies
Tackling the Wasted Food Problem – A Partnership Among Key Players

**Commercial Food Operations** Producers, grocers, restaurants, institutions
Changing operations to reduce wasted food.

**Food Banks and Support Networks**
Meeting needs of food insecure people.

**Public/Municipal and Private Operations**
Supporting source reduction, donation, composting.

**Other Supporters and Sponsors**
Volunteer, faith-based, and philanthropic organizations, “innovation community”
Supporting hunger relief through food recovery and donation programs.

**Government**
Laws, policies, programs
e.g. reduce liability risks, create incentives, technical assistance, research, public recognition programs, support infrastructure development.

[www.epa.gov/smm](http://www.epa.gov/smm)

**EPA United States Environmental Protection Agency**
Food Loss and Waste
A Call to Action

Identify Opportunities → Make Commitments → Take Action

2030 Food Loss and Waste Reduction Goal

Changing how we think about our resources for a better tomorrow

www.epa.gov/smm
ABOUT REFED
ReFED is a collaboration of over 30 business, nonprofit, foundation, and government leaders committed to reducing United States food waste in the United States. ReFED seeks to unlock new philanthropic and investment capital, along with technology, business, and policy innovation, which is projected to catalyze tens of thousands of new jobs, recover billions of meals annually for the hungry, and reduce national water use and greenhouse gas emissions. ReFED was formed in early 2015 to create a Roadmap to Reduce U.S. Food Waste, the first ever national economic study and action plan driven by a multi-stakeholder group committed to tackling food waste at scale.

THE ROADMAP WAS MADE POSSIBLE WITH THE GENEROUS SUPPORT FROM THE FOLLOWING FOUNDATIONS:
Integrated Solid Waste Management

Developing a stakeholder driven roadmap for moving from a solid waste disposal based system to an integrated solid waste management system) and ultimately one founded or structured on the principles of Sustainable Materials Management.

Products include:
1. 2030 Vision for Integrated Solid Waste Management in EPA Region 4;
2. Guide to Integrated Solid Waste Management Accounting and System Funding; and

Food: Too Good To Waste

Florida Organics Recycling History and Current State

Miriam Kessler, LEED AP®
Lean Six Sigma Green Belt, USCC Compost and SWANA Certified

Florida Department of Environmental Protection
Organics in Florida: Part I “The State of Organics in Florida”
May 11, 2016
Recovery of Organics

Source: EPA MSW in the U.S., 2012

- Yard Waste, 59.9%
- Food Waste, 2.5%
- Non-Recyclable Paper, 0%
Organics Recovery Infrastructure

- Over 4,900 composting facilities identified in the U.S.
- More than 180 communities collecting residential food scrap

Source: Biocycle, 2014
FL MSW Waste Generation

MSW Generated in Florida 2014

- Food Waste, 6.6%
- Yard Waste, 11.4%
- C&D Debris, 27.2%
- Scrap Metals, White Goods, 11.6%
- Recyclable Containers, 5.3%
- Other Plastics, 4.2%
- Recyclable Paper, 20.5%
- Miscellaneous, 9.1%
- Process Fuel, 1.7%
- Textiles, 2.5%

Source: DEP 2014 Data
Graph: Kessler Consulting, Inc.
Florida’s Organics Recycling History

- 1988 Yard Waste Landfill Ban
- Started As Mulching State
- FORA – FL Organics Recycling Association
- RFT – Organics Committee, DOT Outreach, ELS Events
- FL DEP – Active Staff
- University Research, UF IFAS
Florida’s History (continued)

• FORCE, the Florida Organics Recycling Center for Excellence
  • DACS, DOT, and UF IFAS Outreach
  • Research and Demonstration Projects
  • Marketing Workshops
  • Educational Material
  • Seven State Report
    • Formal Organics Committee
      • Regulatory Reform, FDEP Chapter 62-709
  • Statewide Operator Training Course in Three Parts of FL
Florida’s History (continued)

- 2008, 75% Recycling Goal by 2020, HB 7135
- 2010, FL Repeals Yard Waste Landfill Ban
- Corporate Sustainability Programs
- Hauler Response to Corporate Demand
- Local Government Role
  - Residential – Backyard Composting
  - 75% Goal – Program Planning
- Facilities
  - Yard Waste
  - Biosolids Composting
EPA Food Hierarchy – Planning for Recovery

Food Recovery Hierarchy

www.epa.gov/foodscrap

Source Reduction
Reduce the volume of surplus food generated

Feed Hungry People
Donate extra food to food banks, soup kitchens and shelters

Feed Animals
Divert food scraps to animal feed

Industrial Uses
Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy

Composting
Create a nutrient-rich soil amendment

Landfill/Incineration
Last resort to disposal
Increase Recovery Goals

Commercial Waste Stream

© Kessler Consulting

FW: KCI Waste Composition Data Average
Commercial/Institutional Programs

Garbage 8 yds = Garbage 4 yds + Recycling Paper + Containers + Food Waste Composting
Commercial Sector Example

Amalie Arena, Tampa Bay Lightning
Food Waste Composting Program
Source: Amalie Arena
Residential Program

What Goes Where?

**Trash**
- Animal Waste
- Disposable Diapers
- Drinking Glasses
- Glass or Ceramic Plates
- Plastic Baggies
- Plastic Wrap
- Styrofoam Egg Cartons
- Window Glass & Mirrors
- Plastic Grocery Bags

**Recycling**
- Cardboard
- Detergent Boxes
- Egg Cartons
- Food Boxes
- Bulk Mail
- Magazines
- Newspapers
- Office Paper
- Phone Books
- Aluminum/Tin
- Bottles & Jars
- Cleaning Products
- Milk/Water Jugs
- Soda Bottles
- Plastic Bottles

**Organics**
- Food Waste
- Grass & Leaves
  (Loose, not bagged)
- Lawn Clippings
- Pruning & Woods
- Small Cuttings From Brushes & Shrubs
- Soiled Napkins & Paper Plates
- Twigs & Small Branches
- Waxed Paper
- Wood Chips

© Kessler Consulting

FW: 10-18% of Single Family Waste Based on KCI WCS Data
Local Government Example

Emerald Coast Utilities Authority
Biosolids and Yard Waste Compost Program

Source: ECUA
Collection Infrastructure
Processing Infrastructure

• Processing growth supports hauler service expansion
• Biosolids Facilities
• Yard Waste Facilities
• Food waste facilities in Florida
Florida STA and Pre-Consumer Vegetative FW Facilities - 2016
# Marketing Program and Moving Material

<table>
<thead>
<tr>
<th>Market</th>
<th>Effort to Develop</th>
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<tbody>
<tr>
<td>Landscape</td>
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<tr>
<td>Nursery</td>
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<tr>
<td>Topsoil Blending</td>
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<td>Moderate</td>
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<tr>
<td>Golf Course</td>
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<td>Environmental</td>
<td>High</td>
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<tr>
<td>Agriculture</td>
<td>High</td>
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<tr>
<td>Retail (bagged)</td>
<td>High</td>
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Local Government Goals

First Zero Waste Plan in the State of FL

• City of Key West, FL
  • 10% recycling rate with a phased in approach to 25% - 40% - 75% (over 10 years)
• Does not include WTE in calculation, if it did the rate would be higher.
Organics Recycling and Recovery Overview

- Organics recycling facility capacity is growing to meet commercial and yard waste demand
- Food scrap collection and processing infrastructure are maturing because of the private sector
- Biosolids composting is growing in the public sector
Organics Recycling and Recovery
Florida’s Next Steps

• A Champion, understanding definitions and the hierarchy of Materials Management
• Food scrap recovery is next frontier for meeting high diversion goals
• Food scrap recovery mandates / disposal bans
Contact Information

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Use the “Raise Hand” option to be identified for follow up
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