

34th ANNUAL

BioCYCLE

NATIONAL CONFERENCE

COMPOSTING, ORGANICS RECYCLING & RENEWABLE ENERGY

Tapping The Profits And Potential

JUNE 21, 22, 23, 2004
PHILADELPHIA, PENNSYLVANIA
Adam's Mark Hotel

CONFERENCE HIGHLIGHTS

- Which compost markets are growing fastest
- Global trends and solutions
- Green power from biomass residuals
- Best strategies for collecting, composting food residuals
- Anaerobic digestion technologies assessment
- Watershed protection strategies built on compost-based BMPs
- How to build positive public relationships
- Compost tea and vermicomposting — emerging developments
- Compost use in sustainable agriculture
- Breakthroughs with odor management research
- Managing mortalities and rendering waste

Cosponsored by:
Pennsylvania Department of
Environmental Protection
Professional Recyclers of PA
Pennsylvania
Resources Council
New Uses Council

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PROGRAM

**MONDAY
JUNE 21, 2004**

MORNING 9:00 AM - 12:15 PM

Plenary Session

Celebrating The Profits, Potential And Passion

Economics, Ecovision, New Energy

How state policies are bringing new incentives to turn municipal, industrial and agricultural residuals into profitable resources, marketable commodities and renewable power. Initiatives in Pennsylvania.

Kathleen McGinty, Secretary, Pennsylvania Department of Environmental Protection (DEP)

Living Systems And Organics Recycling

Connections between recycling coordinator, compost site manager, green business success and sustainable agriculture.

Rob Young, Sustainable Business Alliance

Composting And The Profitability Factor

Calculating volume of feedstocks to provide higher Return On Investment, meet market demand and maintain internal vitality; Evaluating infrastructure costs; Creating side revenue streams.

Carla Castagnero, AgRecycle, Inc.

Passion, Vision And Grit

Celebrating the pioneers making significant inroads with organics diversion; Highlighting role as environmental problem solvers and job creators.

Nora Goldstein, BioCycle

Concurrent Session A

Global Trends And Solutions

Policies and Projects In The United Kingdom

Review of regulatory developments including composting catering wastes and complying with landfill directives; Assessment of UK composting industry.

Tony Breton, The Composting Association

Developing Compost Standards With Producer, User Input In Canada

National initiative involving public and private sector to review and update compost product standards; Role of public information sessions to gather data, feedback; Review of current draft.

Susan Antler, The Composting Council of Canada

Connecting Global Challenges With Organics Recycling Solutions

Assessment of trends that are setting the stage for solutions via composting and organics recycling technologies; Focus on the Millennium Development Goals.

George Garland, United Nations Association-National Capital Area

Register Online

www.biocycle.net

Or Call

610-967-4135 ext. 21

Concurrent Session B

Future Of Solid Waste Management In America

State of Garbage In America — What The Data Shows

Latest trends on MSW generation, recycling, combustion and landfilling; Significance of organics and wood recovery to state recycling rates; Analysis of tonnage-based methodology.

Scott Kaufman, Earth Engineering Center, Columbia University

Recycling Sparks A Sustainable Economy

Why recycling, composting and waste reduction are core components of a sustainable industrial economy; "Change agents" and tools that bring permanence and profitability into materials and organics recycling.

Neil Seldman, Institute for Local Self-Reliance

Mama Mia! What is RIA?

How do you get from here to there when it comes to seeing recycling levels — including composting — increase dramatically in the next decade?; Developing national financial incentives; Forming the Recycling Incentive Alliance (RIA).

Lori Scozzafava, SWANA

AFTERNOON 1:45 PM – 6:00 PM

Concurrent Session A

Calculating The Size Of The Composting Industry

How Many Sites, How Much Organic Feedstocks Processed

Assembling a national data base; Quantifying tonnages of municipal, commercial, agricultural and industrial feedstocks diverted; Estimating volume of compost produced and marketed.

Craig Coker, Carolinas Composting Council
Matt Cotton, Integrated Waste Management Consulting (California)
Nora Goldstein, BioCycle

Dollar Value Grows For Composted Products

Determining market potential for high quality compost; Impact on compost pricing; Case studies in erosion control, storm water management, peat replacement, turf applications.

Rod Tyler, Green Horizons/Filtrex Inc.
Ron Alexander, R. Alexander Associates, Inc.

Vendors Estimate Composting Costs, Value Of Industry

Compost equipment vendors discuss tools to estimate annual sales and size of the composting industry; Zeroing in on cost/ton to produce high quality compost and how that impacts facility revenues.

Panel Discussion

Vermicomposting Enterprises And Compost Tea Research

Building A Business On Vermicompost

When a researcher becomes a compost entrepreneur; Learning the ropes in reaching markets.

Scott Subler, Pacific Garden Co.

Vermicompost As An Ecoproduct

Case study in Cuba illustrates how organic residuals can be the basis for alternative, sustainable enterprise; Feedstocks and vermicomposting methods.

Jeri Berc, USDA NRCS

Compost Tea Applications

What we know, and still need to know; Research trials on a Long Island farm; Selecting feedstocks and systems to achieve beneficial results; Support from organic farming foundation.

Sarah Kelley, Earth Pledge

Concurrent Session B

Managing Manure: Generating Compost And Renewable Energy

On-Farm Methods For Composting Manures, Food Residuals And Yard Trimmings

Creating an economic model — tip fees and product sales — in the heart of suburban Philadelphia; Permitting, composting methods, site management.

Edward Foley, Two Particular Acres Farm

Latest Trends In Anaerobic Digestion In North America

Evaluating performance, energy production, reliability, economics; Technology options, operational experiences; Calculating size of anaerobic digestion industry.

Richard Mattocks, Environomics

Pathogens In Livestock Manure

Research findings on pathogens of concern in animal manures; Assessing the public health and environmental impacts given current manure management practices, including composting, anaerobic digestion.

Patricia Millner, USDA Ag. Research Service

Preparing Engineering Students For Careers In Anaerobic Digestion

Designing AD systems to manage wastes at CAFOs; Determining key characteristics of manure; Calculating energy potential from biogas; Cost analysis.

Mark Schara, Villanova University, Environmental Engineering Department

Biobased Products — From Energy To Soil Blends

How Biobased Companies Are Creating New Markets

Industrial uses for bioproducts to replace petroleum; Growing role of the Biobased Manufacturers Association; Estimating market and sales potential and how composters and organics recyclers can plug in.

Bill Holmberg, New Uses Council

EcoComplex Advances Bioproducts, Renewable Energy

Research, demonstration and business development projects include CHP microturbines and hydroponic greenhouse/aquaponics operations fueled by landfill gas, ethanol production from field corn, and liquid organic fertilizer made from vermicompost.

David Specca, Rutgers EcoComplex

Blending By-Products For Profitable Sales

Establishing successful partnerships and creating viable markets; Overcoming regulatory barriers; Launching innovative projects.

Susan Mooney, U.S. EPA, Region 5

Reception

**TUESDAY
JUNE 22, 2004**

MORNING 8:30 AM - 12:15 PM

Concurrent Session A

Breakthroughs In Odor Research And Control

Evolution Of Odor Management Knowledge ... And Practices

What have we learned after 30 years of managing odors from biosolids recycling and composting projects?; Highlights range from identifying odor compounds and how to treat them to latest findings on what causes odors in the first place.

John Walker, U.S. EPA (retired)

Insights On Biosolids And Odor Formation, Emissions

Role of protein degradation in formation of volatile organic sulfur compounds, odorous volatile aromatic compounds (OVACs) and nitrogenous OVACs; Deodorization of anaerobically digested cake solids by pathogens; Finding the balance between odor reduction and degradation.

Matthew Higgins, Bucknell University

Bugs, Mechanics And Managing Odors At Wastewater Treatment Plant

Analyzing the underlying biological and physical processes of wastewater treatment and biosolids production to identify new solutions to odor control; Implementing odor minimization steps identified by research studies.

William Toffey, Philadelphia Water Department

Human Responses To Odors — Exploring New Frontiers

How perception of an odor alters people's judgment of health risk from an environmental chemical exposure; Attentional and hormonal factors that enhance odor sensitivity; Identifying causes of stress response to a benign odor.

Pamela Dalton, Monell Chemical Senses Center

Compost Facility Management — Lessons From The Veterans

Maximizing Feedstock Flow, Managing The Variety

Securing needed flow of feedstocks at county-owned cocomposting facility; Managing a range of biosolids types and qualities; Viability of expanding into other organic feedstocks.

Mary Pat Robbie, Burlington County (NJ) Solid Waste Authority

A Municipal Solid Waste Composting Journey

Manager of mixed waste/biosolids cocomposting operation highlights the necessary "ingredients" for facility viability; Overview of plant upgrades, sourcing source separated organics, recycling integration, odor management, compost markets.

Bob Spencer, WeCare Environmental LLC

Making The Best With Outdoor Systems

Managing putrescible and potentially odorous feedstocks using low tech composting methods; Importance of a dedicated operator, attention to detail and developing a marketing program based on high quality products.

Geoff Kuter, Agresource, Inc.

Concurrent Session B

Compost Utilization — Insights And Research

Soil Quality Fundamentals — And Compost

Understanding mechanisms that improve capacity of natural soils or soil substitutes to support plant growth; Clarifying cause/effect of compost amendments on soil organic matter, humus; Implications for moisture retention, nutrient availability.

Richard Stehouwer, Pennsylvania State University

Replacing Peat In Horticulture With Compost

Quantitative and qualitative effect of compost amended container media on ornamental plant growth; How chemical/biological properties of compost affect grower management practices; Impact of feedstocks on final compost characteristics.

Mark Highland, Longwood Gardens/University of Delaware

Calculating Water Retention

Impact of compost incorporation on water-holding capabilities of soils; Growth trials with popcorn and soybeans on compost amended sandy loam soil; Estimating savings from less irrigation, decreased use of limestone fertilizer application.

Duane Friend, University of Illinois Coop. Extension

Using Compost For Nutrients And Disease Suppression

Optimum methods to replace pesticides in agriculture; On-farm experiences in reducing crop disease with compost; Impact of soil organic matter changes.

Heather Darby, University of Vermont Cooperative Extension

Managing Butcher Waste, Road Kill, Mortalities

Composting As A Rendering Alternative

Decline in rendering plants leads to composting approach at farms; Recommendations for use of finished compost; Keeping butchers in business.

Jean Bonhotal, Cornell Waste Mgmt. Institute

Brian Jerose, WASTE NOT Resource Solutions

Road Kill Composting

Results of pilot project for deer carcass composting; Documenting cost-savings; Pathogen concerns and precautions.

Theresa Laibach, New York Department of Environmental Conservation

Composting Of Broiler Mortalities Due To Catastrophic Disease

How to start and manage the process in-house; Environmental impacts; Dealing with one-half million birds; Lessons learned.

Lewis Carr, University of Maryland

AFTERNOON 1:45 PM – 5:30 PM

Concurrent Session A

Watershed Protection Strategies With Compost

Compost-Based System Performance

Comparing compost-based systems for erosion/sediment control and storm water management with conventional BMPs; Analyzing data related to runoff of sediment, nitrogen and phosphorus.

Britt Faucette, University of Georgia

Green Roofs As First Line Of Defense In Urban Watersheds

Role of green roofs in storm water management; Use of compost-amended soil blends that meet weight, growth medium specifications; Case studies in Atlanta region.

Wayne King, Sr., EARTH Products LLC

GreenScapes Initiative Connects Compost, Clean Water, Healthy Soils

Federal initiative promotes use of compost and other organics in large-scale landscaping; Government/industry partnerships; Brownfield restoration.

Jean Schwab, U.S. EPA

Plugging Into Water Source Protection

Addressing impacts of soil disturbing activities, contaminated soils in rural and suburban communities to city water supply; Urban-suburban-rural partnerships.

Christopher Crockett, Office of Watersheds, Philadelphia Water Department (Invited)

Concurrent Session B

Institutional, Commercial Organics Diversion

Food Residuals Collection, Composting At State University

Pre and postconsumer diversion from dining halls; Designing effective collection program; Winter management strategies; Research projects.

Nadine Davitt, Pennsylvania State University

Composting At Supermarkets

What it takes to set up a successful food residuals diversion program at a nationwide chain; Analysis of methods, disposal cost savings and composting options.

Lee Kane, Whole Foods Market

Overcoming Barriers To Sustainable Food Residuals Diversion

Veteran of many pilot projects and a few full-scale programs discusses key factors that need to be in place to build permanence into commercial organics composting; Regulatory, economic and logistical challenges — and solutions.

Sumner Martinson, Massachusetts DEP

Lining Up, Signing Up The Generators

Positive economics, convenience, frequent collection and employee training are among elements needed to sign grocery stores to organics diversion program; Employing carts, degradable bags; Hauler logistics.

Mike Manna, Eastern Organic Resources

Plenary Session

New Directions In Public Policies

Little-Known Policies Support Renewable Energy And Bioproducts

How Renewable Standard Portfolios/"advanced energy" initiatives impact biomass utilization; Federal proposal to buy biobased products.

Carol Werner, Energy and Envir. Study Institute

Policies That Favor Food Residuals Recycling

How "nonwaste" policy factors such as greenhouse gas reduction and environmental solutions with compost and anaerobic digestion products favor diversion of food residuals from landfills; Creating incentives at the state level.

Priscilla Hayes, Solid Waste Policy Group, Rutgers University

The Project To Policy Continuum

What steps need to happen to change public policies based on successful, cost-effective composting, organics recycling and renewable energy projects; Overcoming regulatory and infrastructure hurdles; Use of public/private partnerships.

Panel Discussion

WEDNESDAY JUNE 23, 2004

ALL DAY 8:00 AM – 4:30 PM

ATTENDEE SPECIAL OPTIONS

Option 1: Training Workshop - Compost Sales And Marketing

Instructor: Ron Alexander, R. Alexander Associates, Inc. Training Workshop developed for compost marketers and sales staff. Workshop covers the Economics of compost marketing; Compost characteristics; Product marketing principles; Marketing program implementation options; Compost quality; Market planning; Sales principles and requirements; and the "Sales Call" and technical sales strategies. Preregistration required.

Option 2: Field Trips

Tour includes yard trimmings composting site that receives preconsumer food residuals from commercial and institutional generators; An agitated bay biosolids/yard trimmings cocomposting facility; EcoComplex, featuring CHP microturbines and hydroponic greenhouse/aquaponics operations fueled by landfill gas, ethanol production and vermicompost-based liquid fertilizers; and Soils remediation project employing composting as the treatment process. Also in the planning stages is an erosion and sediment control and storm water management demonstration using compost blankets, berms and socks. Preregistration required.