

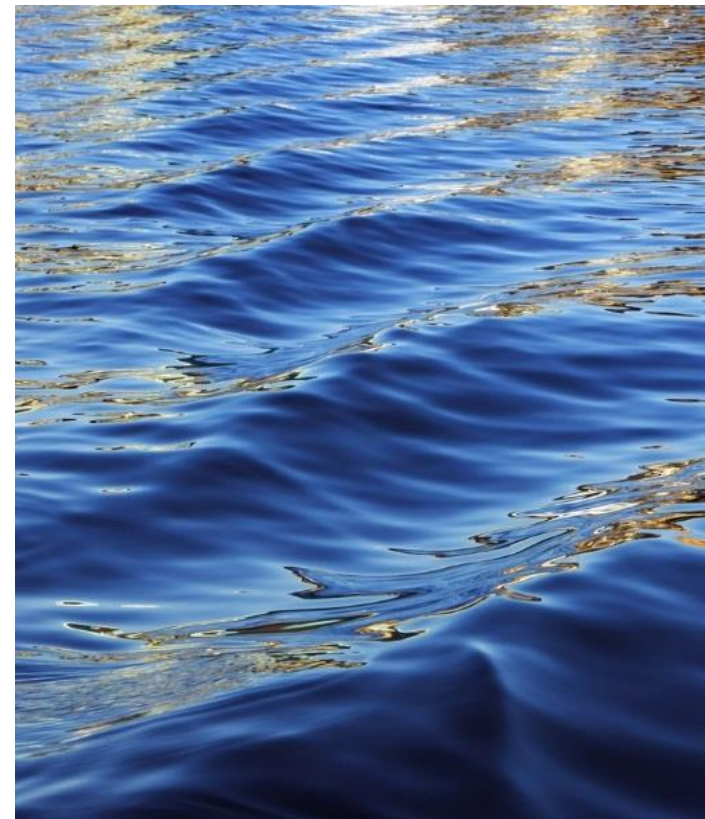


WORC Conference 2018

Frank Franciosi-Executive Director



US Composting
Council





**US Composting
Council**



**Composting
Council®**

**Research &
Education Foundation**

Established 1990

- **Who & What Are We?**

The US Composting Council advances compost manufacturing, compost utilization, and organics recycling to benefit our members, society, and the environment.

Compost: Nature's Way To Grow!

Nature's Way to Grow!



**US Composting
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Vision Statement

We believe compost manufacturing and compost utilization are central to creating healthy soils, clean air and water, a stable climate, and a sustainable society.



Role of the USCC

Areas of Engagement

- **Education**

- Annual Conference Program
- Workshops & Webinars
- Operator & Professional Certification

- **Market Development**

- Seal of Testing Assurance Program®
- Certified Compost® Marketing
- Compost End Use Applications

- **Advocacy**

- National Outreach
- State Policy Support
- Partnering Organizations

- **Membership**

- Communication
- Organizational Management
- State Chapters

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Strategic 3 Year Plan

Goals:

- **Advocacy**-Improve and expand legislative and regulatory advocacy at regional and national levels
- **Education/Certification**-Expand industry-wide professional development through education and certification for compost producers and professional specifiers
- **Internal USCC Infrastructure**-Grow and strengthen the USCC financially and operationally
- **Marketing/Communications/Public Relations**-Communicate the value of USCC and Certified Compost TM

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Strategic 3 Year Plan

Objectives: Advocacy

- ✓ Promote diverting organics for beneficial reuse
- Develop and support upstream policies to minimize contamination
- ✓ Strongly encourage EPA to amend review process to identify and manage Persistent Herbicides
- Obtain grant funding to provide industry economic impact analysis

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Strategic 3 Year Plan

Objectives: Education/Certification

- ✓ Launch, promote, and grow Operator Certification and additional education opportunities for compost operators
- Develop programs to educate and certify professional specifiers and designers
- ✓ Develop plan to build next generation of the industry
- Develop and promote BMPs, operational safety and compliance programs

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Strategic 3 Year Plan

- **Objectives: Internal USCC Infrastructure**

- ✓ Grow USCC annual conference program and revenue
- Develop an ongoing membership promotion and retention plan to achieve 1,000 member entities by July 1, 2019
- ✓ Develop a plan for state chapters
- ✓ Strengthen and capitalize on the STA program
- ✓ Maintain and expand strategic alliances and partnerships

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Strategic 3 Year Plan

• Objectives: Marketing/Communications/Public Relations

- ✓ Provide tools and programs targeted to expand compost and compost-related markets
- ✓ Engage with colleges and universities to get involved in organics collection, composting, compost utilization, and the USCC.
- ✓ Continue to improve the website and external communication methods as a primary means of providing strong support and educational resources to existing and prospective members, advocacy groups, policy makers, and the public
- Develop marketing plan for food scrap haulers and generators

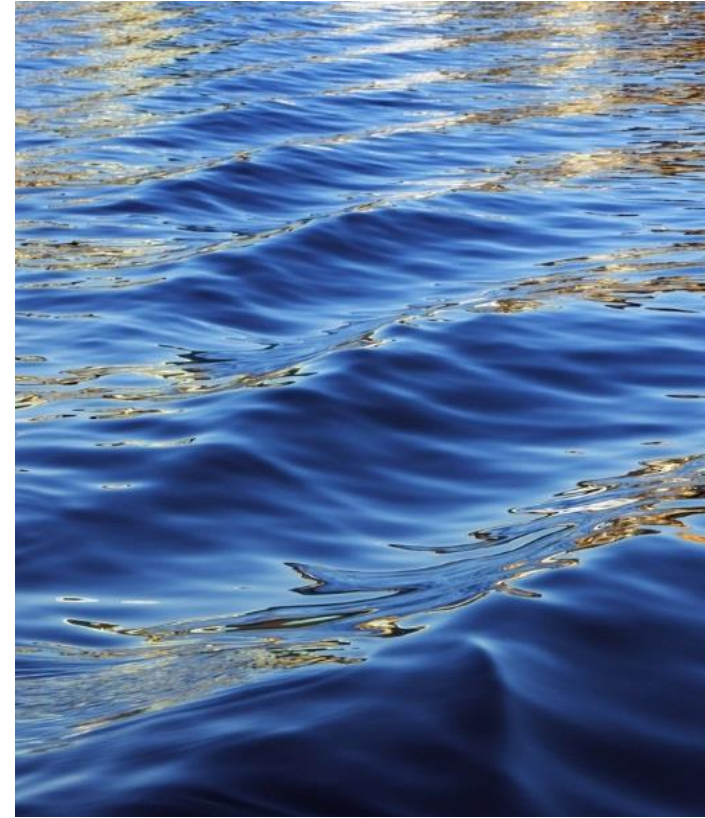
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Membership



Membership

- 750 business entities
- 2,500 individual members
- 8 levels of membership
- New Student level added in 2018
- New Sustaining level added in 2018
- Young Professionals
- Six State Charter Chapters- NC, MN, CA, CO, VA & NJ
- Three State Committees – MD-DC, IL & MI

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Member Benefits

- Products & Training Discounts
 - CAT, COTC, Certification & Conference
- Conference Exhibit Booth Discounts
- STA Participant Discounts
- BioCycle Subscription
- Member Directory access
- Eligible for Online Products/Services Directory
- Member Mail List (Upper Level members only)



**SAVE UP TO \$2,750 ON
A CAT[®] MACHINE.***

EXCLUSIVE USCC MEMBERSHIP OFFER
Save up to **\$2,750** when you buy or lease qualifying Cat[®] Backhoe Loaders, Wheel Loaders, Mini Excavators, Multi Terrain Loaders, Skid Steer Loaders, Compact Track Loaders, Telehandlers or Small Dozers – exclusive to you and fellow USCC members. Save an additional **\$250** on select Cat attachments.** To redeem your offers, take this card and proof of your USCC membership to your local Cat dealer. **You're making a living. We're making it easier.**

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Young Professionals

2018-2019 Mentor /Mentee Parings

- Ginny Black (CCREF)—Matt Jones (Mud Lake Compost)
- Eric Walter (Black Bear Composting)—Carl Diethelm (Green Mountain College)
- Denise Winter (Synagro)—Kali Rabut (Suncoast Compost)
- Phil Gosh (Organics by Gosh)—Conrad Chappell (TSU Student)
- Ryan Cerrato (WeCare Denali)—Leah Retherford
- Rich Nicoletti (BDP)—Jen Fehrmann (Solus Group)
- Rick Carr (Rodale)—Luis Chen (Wormies)
- Jeff Ziegenbein (IEUA)—Patricia Fossum (City of Durham NC)
- Jeff Gage (Green Mt Technologies)—Sashti Balasundar (City of Buffalo)
- Francisco Niembro (Aldea Verde)—Felipe Pedrazzi (Sao Paulo State Univ)

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The Emerging Composter Challenge

The Emerging Composter Challenge is an annual business pitch competition open to entrepreneurs of all ages looking to jumpstart their businesses in the organics recycling space. Applicants from any business that recycles or supports the recycling of organics are encouraged to apply! The final round of the competition will be held at COMPOST2019 in Phoenix, with cash prizes awarded to the top 3 finishers.



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The Emerging Composter Challenge

We are looking for new businesses that span the entire organics recycling industry:

- Technology innovations (apps, equipment, software);
- Composting systems;
- Innovations for producing compost;
- Businesses that focus on contamination aversion
- Public education focused businesses
- Compost facilities and collection models, especially in under-served areas
- Businesses focused on compost use



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State Chapters & Committees

- *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 benefitting the compost industry.*

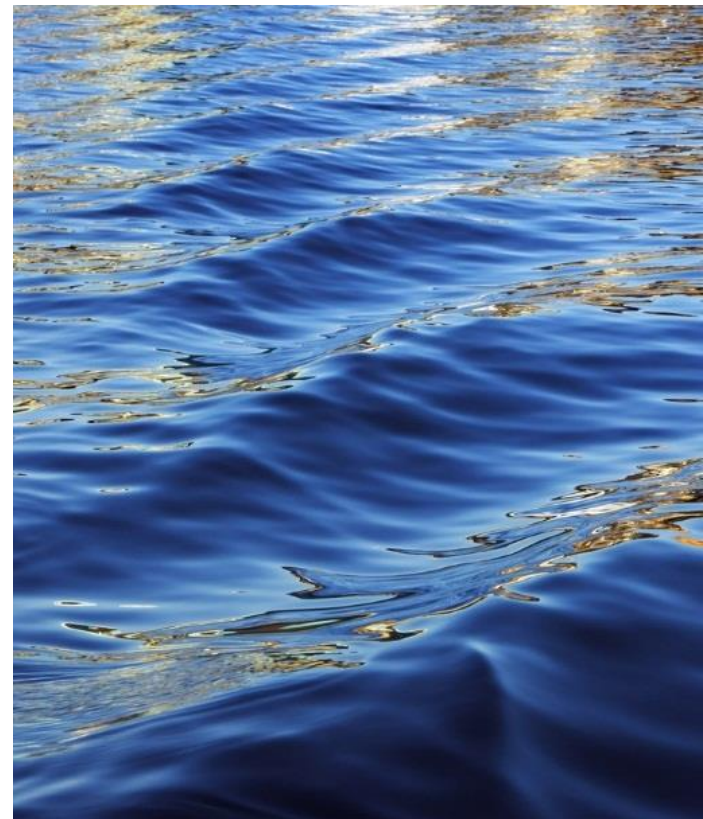
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Market Development



Certified Compost® STA Program

- 230 Participants now in the STA Program
- 350 Products represented
- Using Certified Compost webinars through Forrester University
- Represented USCC at AAPFCO meetings
- Provided annual support for CAP Program
- Engaged Joe Lamp'l, Growing A Greener World-Year 4
- Continued upgrades and revisions to websites
- Changed over from paper filing to electronic
- Annual renewal and recertification
- Tracking activity and results with new AMS



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Consumer Use Program

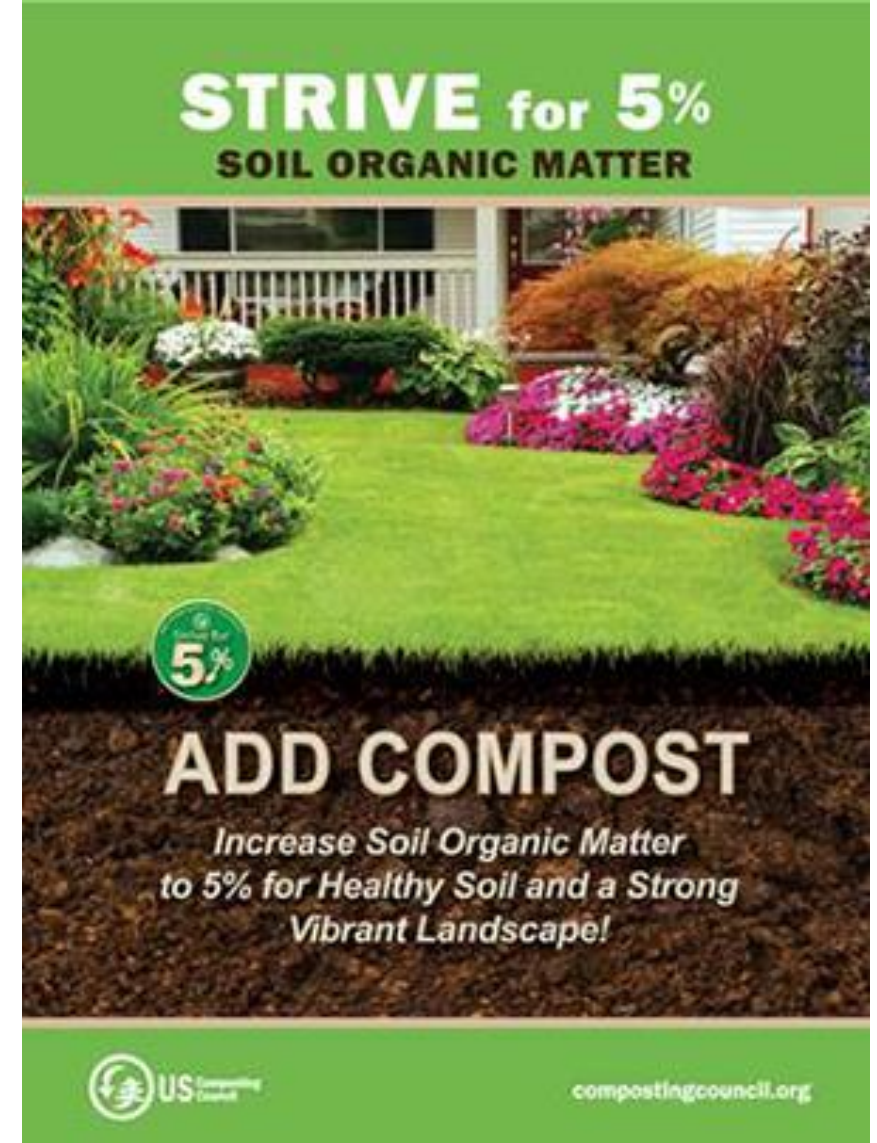


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Strive for 5

- The US Composting Council launched a 'Strive for 5%' organic matter campaign in late 2011, in conjunction with the introduction of the Consumer Compost Use Program. This informational program is designed to reinforce the idea promoted for many years by gardening experts that soils should contain at least 5% organic matter. We believe that the most cost efficient, effective and environmentally sound way to maintain or increase this level is with STA compost!

•

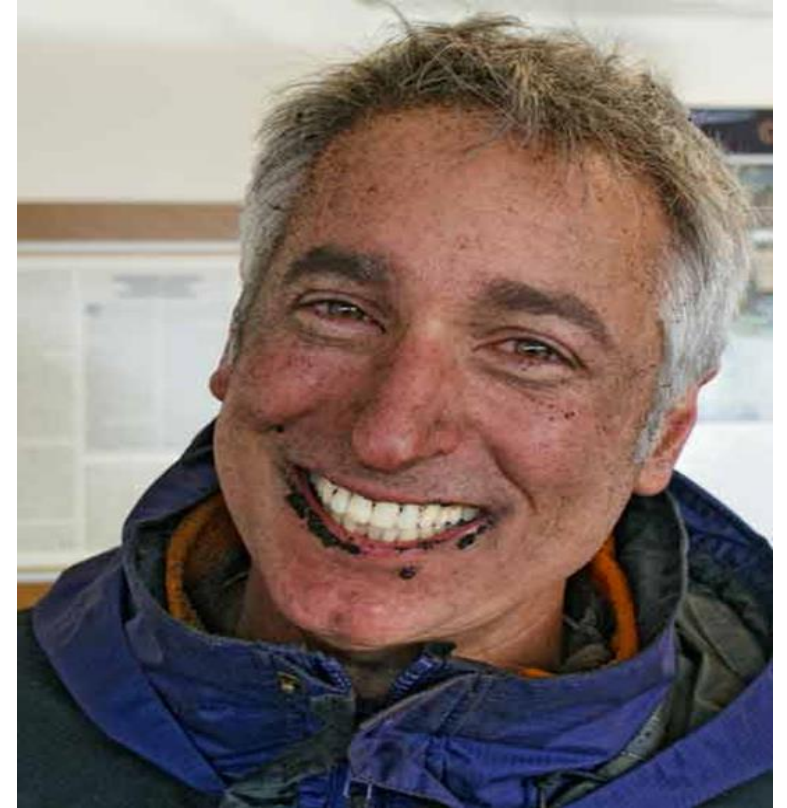


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Joe Lamp'L –Growing a Greener World

- National spokesperson
- Focused on organic gardening, sustainability, and green living
- Award-winning public television series
- Airing 52 weeks a year
- 175 markets across the United States
- Ninth season with 13 new episodes
- Compost subject matter videos



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Certified Compost ® App -2019

- Working with NC State University Capstone Program
- Swiss army knife for compost use
 - Compost calculator
 - Compost use videos
 - Landscape architect specifications
 - Compost technical data sheet access
- GPS Certified Compost manufacturers and distributors
 - Communicates with the Association Management System



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Compost Markets

- **Stormwater Runoff Use** of compost to control storm water runoff utilizes a mature, low nutrient compost as a filtering media which is placed in a catch basin for storm water runoff to pass through it. After passing through the compost filter, runoff water has been demonstrated to be lower in sediments, total suspended solids, oil and grease, heavy metals, herbicides, pesticides and fuel from accidental spills.

Green Infrastructure Uses

- Green roofs
- Bioswales
- Bioretention
- Infiltration on existing soils



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Compost Markets

- **Erosion Control Use** of compost to inhibit erosion has been shown in several trials. The simple application of compost on roadside cuts without vegetation markedly reduced soil losses by erosion, both by “holding” the soil and stimulating rapid plant growth. After several years of experimentation, the municipalities found compost serves as a better seedbed than topsoil. It is less likely to erode from a slope when it rains, and also holds water better, thus promoting faster seedling germination. State Departments of Transportation are expanding the use of compost.
- **Compost blankets**
- **Compost berms**
- **Compost socks**



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Compost Markets

- **Soil Restoration** Compost has been used successfully as a medium for rebuilding the muck layer in wetland soils strata. This is effective for both rehabilitation and artificial construction of wetlands. Mature compost appears to mimic the organic makeup of the muck and promote healthy growth of native wetland species. "Brownfield" Rehabilitation Finished compost provides many of the soil nutrients that can provide new opportunity for healthy plant growth on contaminated urban property. Increased plant growth and biodiversity helps create a healthier eco-system for humans and other animals.
- **Damaged and compacted soils**
- **Wetland soil restoration**
- **Brownfield soil restoration**



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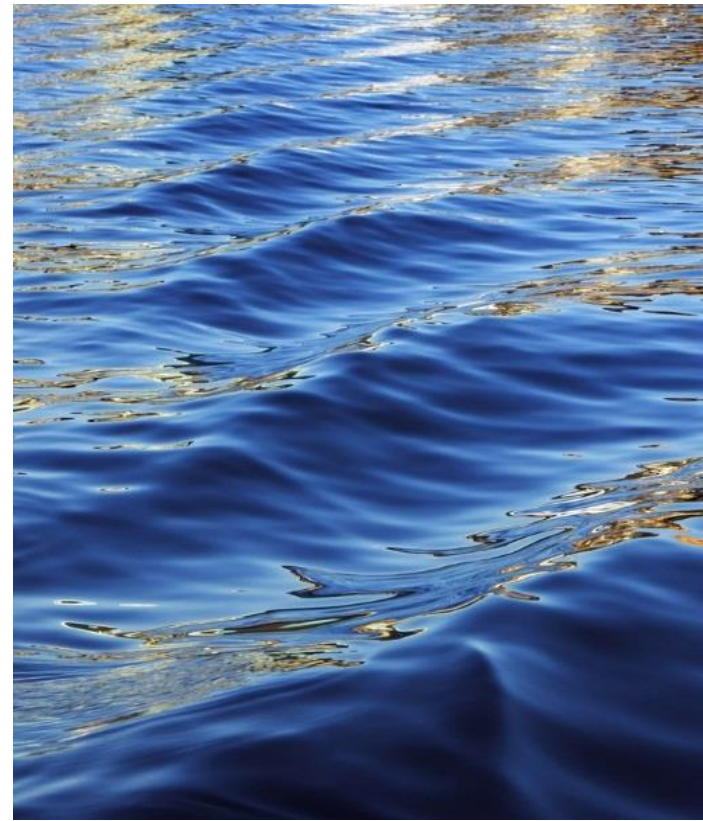


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Legislative & Environmental Affairs



2018 LEAC Activities

Comment letters and letters of support were submitted:

- Howard City, MD zoning issue
- MD 1349—labeling bill
- St. Lucie County, FL, siting restrictions
- Several on various CA issues
- NC HB244
- EPA Persistent Herbicide Issues
- PFAS issue in Alaska

LEAC meetings

- Met 10x, average 9 attendees
- Reps from CA, NC, MN, CO, MD, MI, NY, NJ most common, plus several Nat'l orgs (BPI, Scotts, BioBag)
- Provides forum for exchange of policy ideas and issues
- Continued discussions with Senator Booker's office on Compost Infrastructure

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2019 LEAC Projects

- EPA Persistent Herbicide Issue
- Restructuring the advocacy section of the website
 - Legislative forum
 - Tool kits for states
- Compost facility BMP's

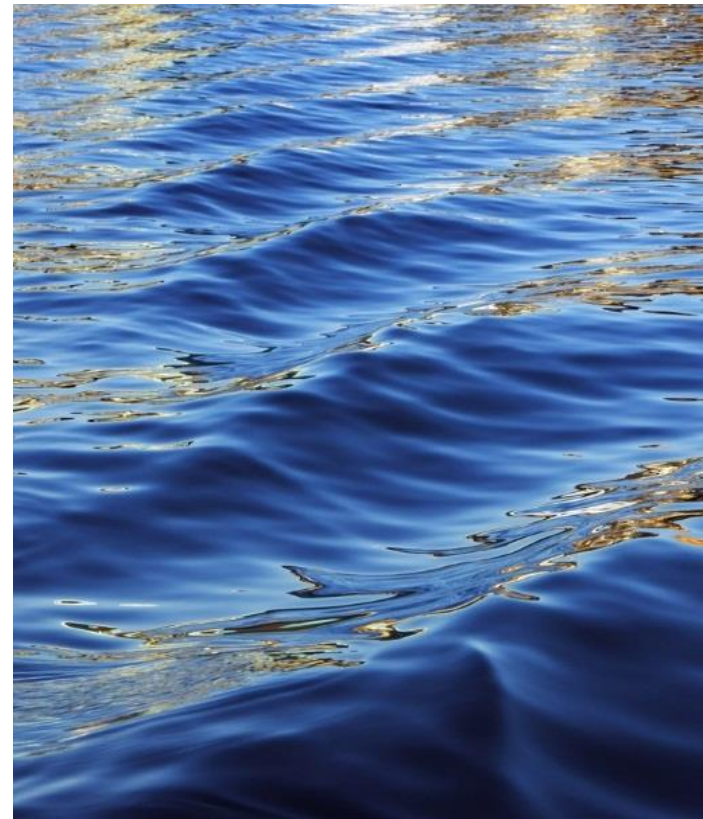
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Strategic Alliances



Strategic Alliances

Role of SAC committee- connecting programs that engage lowest level of time and resources to highest impact for USCC. Using our own networks and contacts.

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Strategic Partnerships

- American Hort
- America In Bloom
- American Public Works Association (APWA)
- BioCycle
- Biodegradable Products Institute
- Green Sports Alliance
- International Erosion Control Association (IECA)
- Keep America Beautiful (KAB)
- National Foundation to End Senior Hunger-(NFESH)
- Perennial Plant Association

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Strategic Partnerships in the Works

- Association for the Advancement of Sustainability in Higher Education –(AASHE)
- The Green Restaurant Association
- Post Landfill Action Network-(PLAN)

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Target Organics



Waste Analysis

- Current Volumes
- Current Practices
- Current Life Expectancy
- Projected Growth



Policy & Mandates

- Solid Waste Mgmt. Policies
- State Goals or Mandates
- Your goals



Solid Waste Plan

- Plan Cycle
- Revisions
- Stakeholders
- Timeline
- Education & Outreach



Infrastructure Development

- Collection
- Permitting
- Yard Waste Facility
- Land & Zoning
- Abandoned Sites
- Brownfield Sites
- Enterprise Zone



System Selection

- Siting Parameters
- Funding
- Personnel
- Public -Private Partnership's
- Systems



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Target Organics

- Survey municipalities on organics
- Gain knowledge of the solid waste planning process
- Engage and connect with stakeholders
- Develop solutions and guidelines for organic recycling at the local level

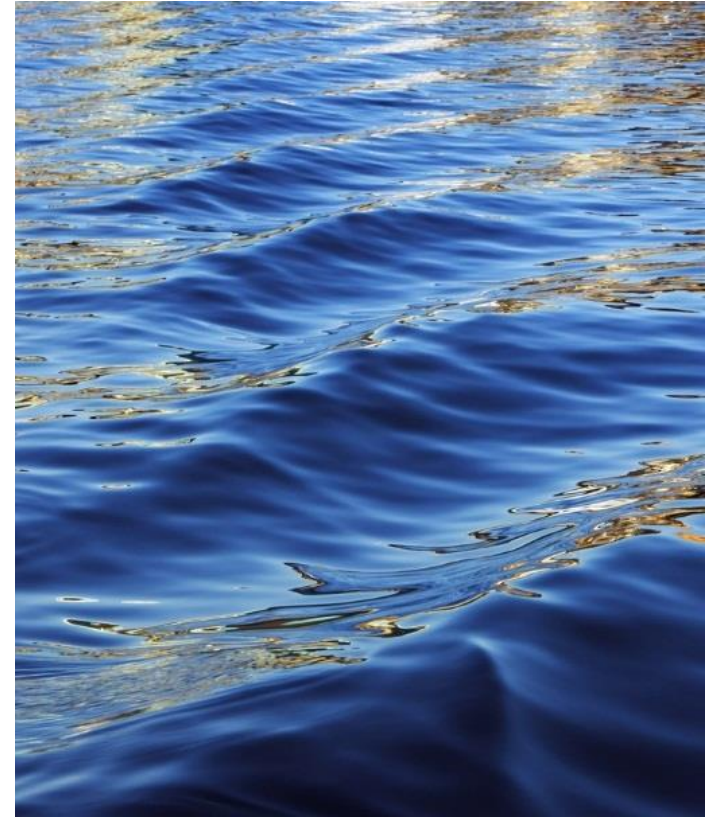
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Professional Certification



USCC Certification



USCC Certification Commissioners



Jerry Bartlett



Matt Cotton



Tom Del Conte



Jack Hoeck



Mark Rose



Scott Subler

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USCC Certification



Two certifying programs

- Operations Manager
- Composting Professional
- Based on following criteria
 - Work Experience
 - Formal Education
 - Training in subject matter
 - Passing the exam



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Drivers for Food Scrap Composting

- 50% Reduction of Food Waste by 2030

Composting:

By investing in **composting** infrastructure, training, and policy, 5.3 million tons of food scraps can be diverted annually from landfills through **composting**, reducing an estimated 2.6 million tons in greenhouse gases while creating over 9,000 new jobs.



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Barriers to Increasing Composting Infrastructure

- ✓ Consumer behavior- throw away society
- ✓ Political will
- ✓ State Regulations-Permitting
- ✓ Training and Educational Programs
- ✓ Supply & demand of compost product
- Contamination of feedstocks
- Zoning & siting (NIMBY)
- Making the economics work



OCCRA, NY-O2 Compost System

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Consumer Behavior



The
COMPOST STORY

A FILM THAT SHARES THE ABILITY OF COMPOST TO REGENERATE OUR LAND
AND HELP REVERSE CLIMATE CHANGE.



ADRIAN GRENIER ROSARIO DAWSON KENDRICK SAMPSON AMY SMART PAUL BLACKTHORNE

WATCH *the* **FILM**

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Tools for Composting Organics

- ✓ www.compostingcouncil.org
- ✓ [State Organic Bans](#)
- ✓ [State Regulations](#)
- ✓ [Model Rules Template](#)

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Tools for Composting Organics

More Online Resources

- ✓ [A Guide to Workplace Composting](#)
- ✓ [Compostable Plastics Toolkit](#)
- ✓ [Curb-to-Compost Toolkit](#)
- ✓ [Fact Sheets & Free Reports](#)



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Creating Demand for Infrastructure

Compost Feedstocks

- Yard trimmings landfill bans – eliminate use as LF daily cover
- Source Separated Organics landfill bans
- More private public partnerships
- Generator incentives-tax breaks-lower fees
- State grants for collection and separation

Compost Products

- Model Ordinances for Soil Restoration
- Stormwater BMP's
- Green Infrastructure (USGBC) LEED Certification
- DOT (use of STA Certified Compost)
- University research



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Monetize Benefits of Compost

- **Compost** supplies valuable organic matter and nutrients to soil
- **Compost** improves soil structure and porosity, ensuring a healthier plant root environment
- **Compost** increase the water holding capacity of soil, reducing watering needs
- **Compost** stabilizes pH and improves the soil's ability to hold nutrients
- **Compost** can help in binding and degrading some pollutants
- **Compost** increases beneficial soil organisms
- **Compost** stores soil carbon

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Political Will-Target Organics



Waste Analysis

- Current Volumes
- Current Practices
- Current Life Expectancy
- Projected Growth



Policy & Mandates

- Solid Waste Mgmt. Policies
- State Goals or Mandates
- Your goals



Solid Waste Plan

- Plan Cycle
- Revisions
- Stakeholders
- Timeline
- Education & Outreach



Infrastructure Development

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- Land & Zoning
- Abandoned Sites
- Brownfield Sites
- Enterprise Zone



System Selection

- Siting Parameters
- Funding
- Personnel
- Public -Private Partnership's
- Systems

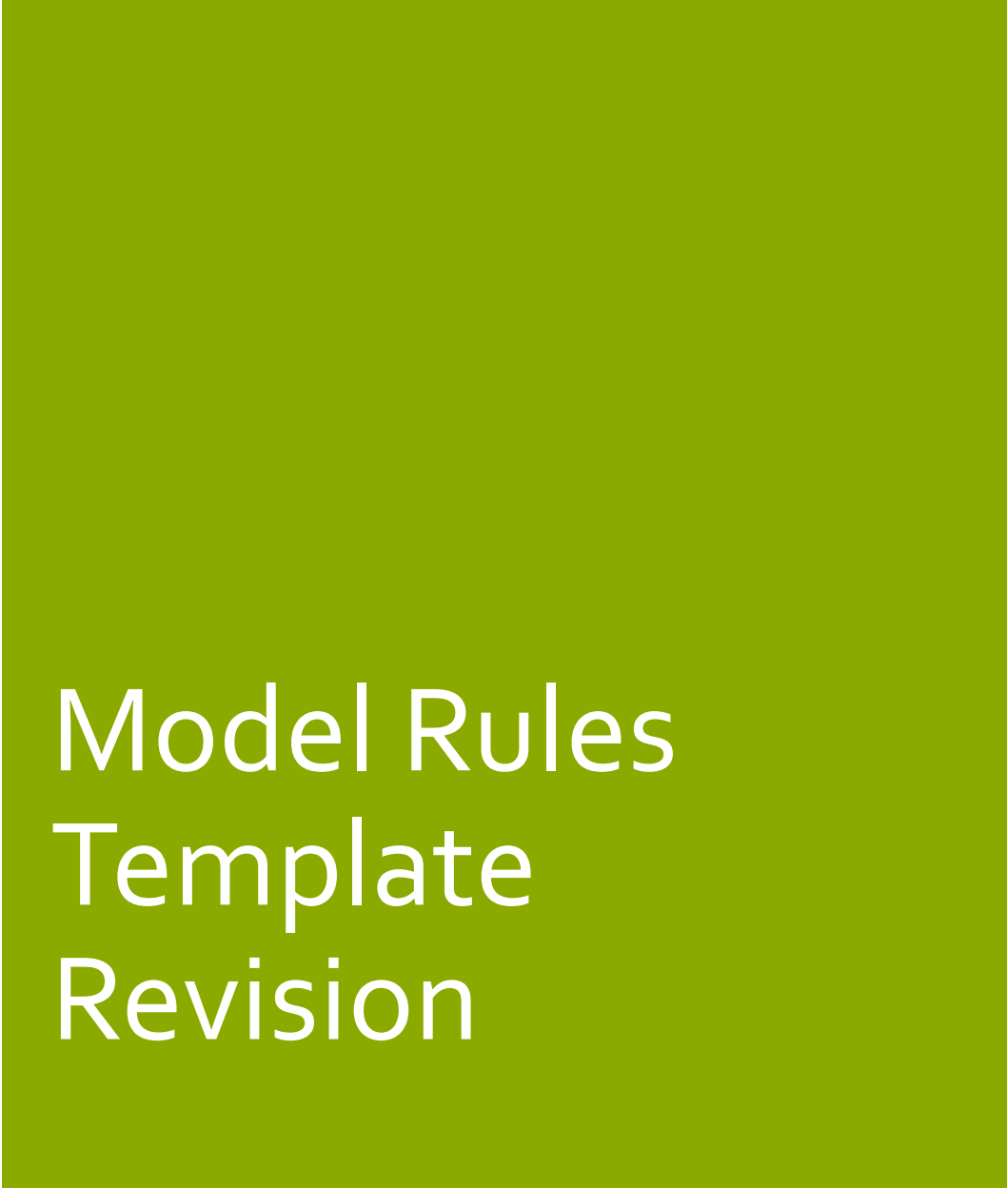


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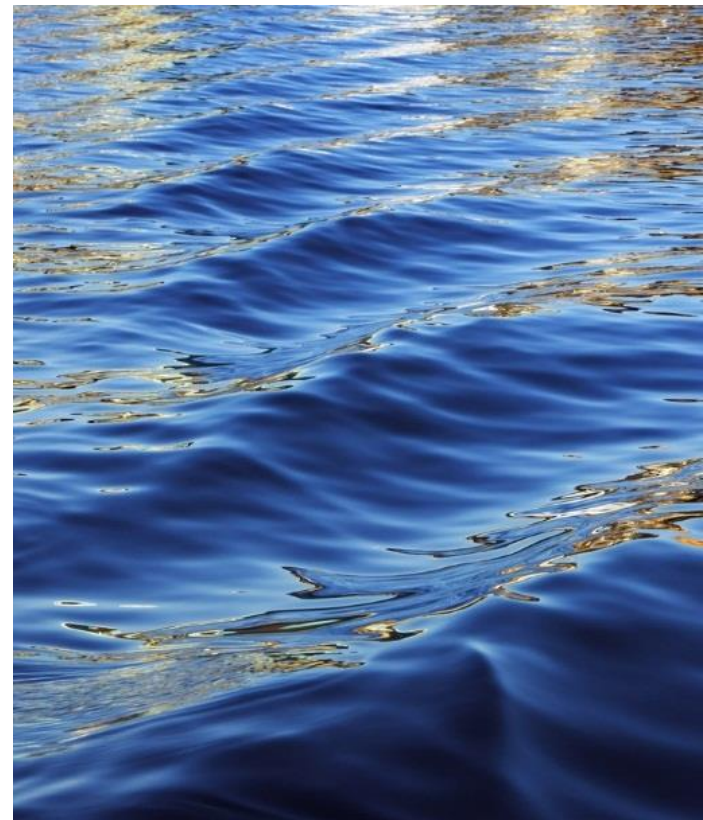


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Model Rules Template Revision



Model Rules Template 1.0

- Established: 2010
- Completed: 2012
- Purpose: To serve as a guidance document for states
- Task Force:
 - USCC, GA DPE, The Fanning Institute & BioCycle
 - Vetted by Industry Consultants, State Regulators & Facility Operators

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Model Rules Template 1.0

- Model composting rules are based on science as well as experience
- They are needed as a foundation for operators and regulators to help in the permitting process and aid in regulatory oversight.
- They can ensure consumer confidence in compost quality and build composting infrastructure, composting facilities must be designed, operated and regulated to ensure quality products are produced and high standards are maintained that are protective of public health and the environment.

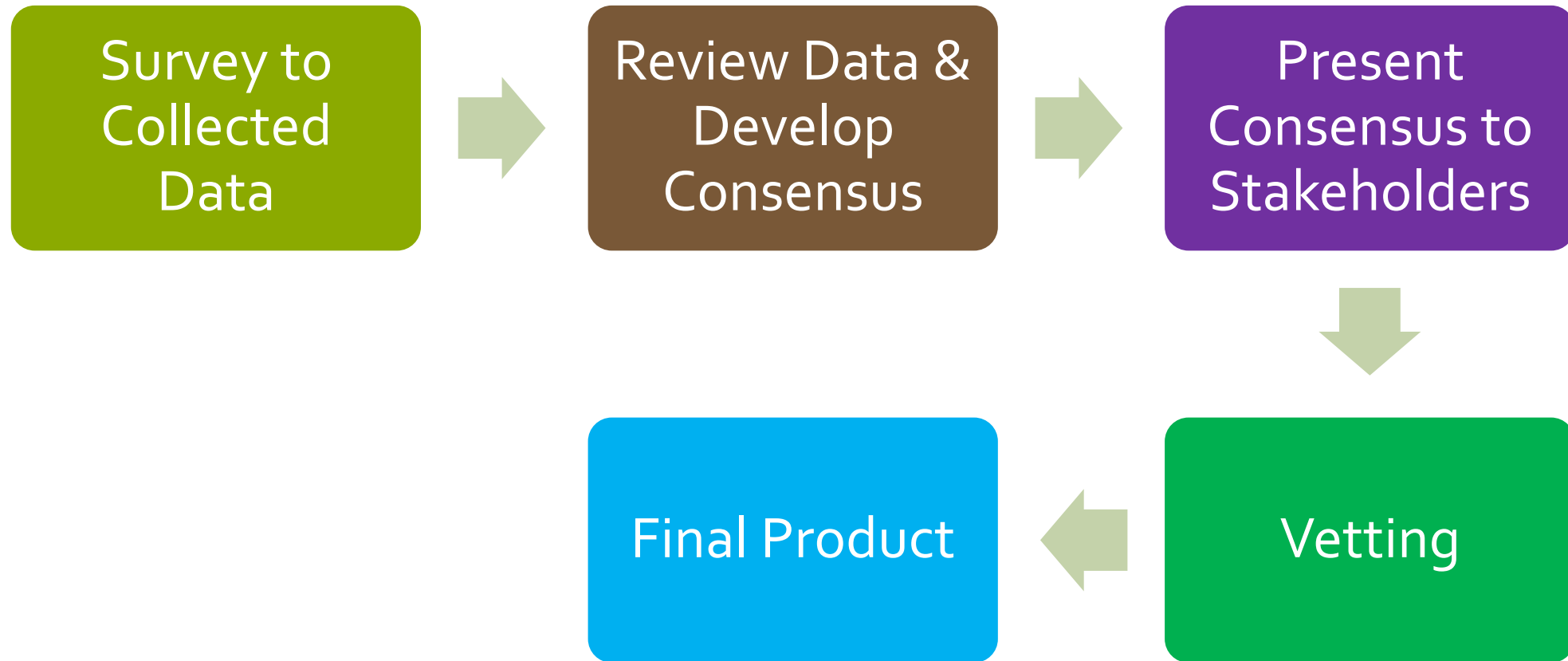
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Model Rules Template Version 2.0



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Model Rules Template Version 2.0

- ✓ Phase 1-Exemptions
- ✓ Phase 2-Definitions
- Phase 3-Annual Reporting Requirements
- Phase 4-Training & Certification
- Phase 5-Product Testing
- Phase 6-Facility Siting & Design

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Contamination of Feedstocks-Physical



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Contamination of Feedstocks-Physical

- National Approach to the Supply Chain
 - Engage all stakeholders
 - More outreach on source separation at collection points
 - Improved methods of identifying compostable products
 - Improved mechanical sorting at feedstock tipping
 - Improved mechanical sorting at feedstock mixing
 - Improved screening at post process

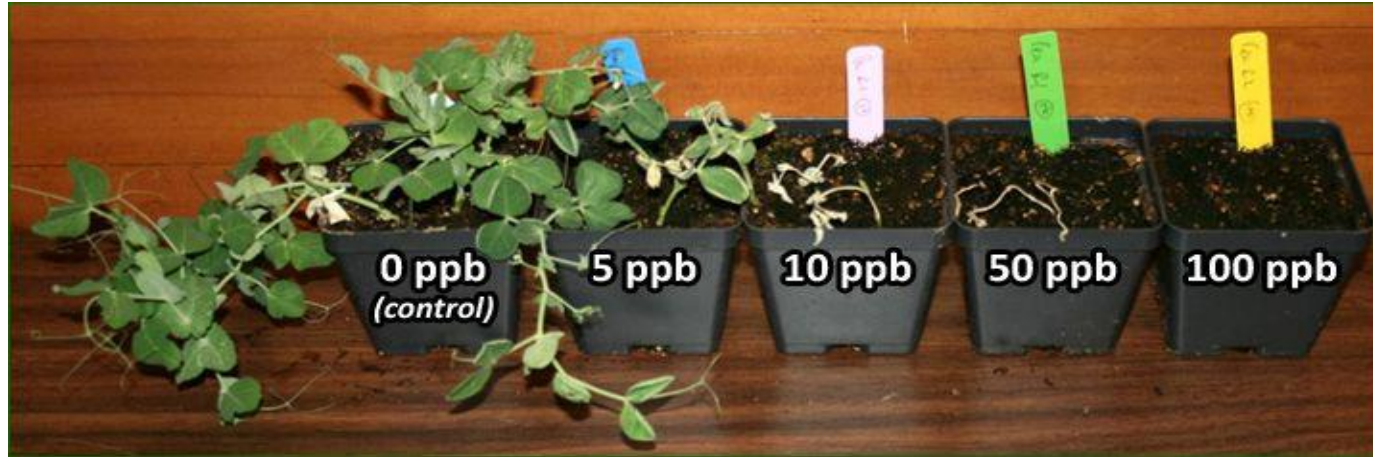
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Contamination of Feedstocks-Chemical



Persistent herbicides

<https://compostingcouncil.org/persistent-herbicides/>

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Zoning & Siting

- Engage all stakeholders
 - Municipalities, APWA, Urban Planners and Depts. of Resiliency
- Revisit filing for NACIS
- Catalog examples of good zoning regulations and language
- Develop a zoning and siting template



Making the Economics Work

- Develop a standard monetization of compost the product
- Compare true costs vs. landfilling
- Develop business training courses for compost manufacturers

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**Research &
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The Foundation



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**Research &
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Vision

Our vision is to advance composting technologies, practices, and beneficial uses that support resource conservation and economic and environmental sustainability.

Mission

The Composting Council Research and Education Foundation supports initiatives that enhance the stature and practices of the composting industry by supporting scientific research, increasing awareness, and educating practitioners and the public to advance environmentally and economically sustainable organics recycling.

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2018 Work Plan



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- ✓ Young Investigator Scholarship
- ✓ International Compost Awareness Week
- ✓ Compost Operator Training Program
- ✓ Compost Sampling Video & Manual
- Applied Research Review
 - ✓ Salts in Compost
 - Air Monitoring on Compost Piles
 - Phosphorus in Compost

International Field Testing for Compostable Products

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Young Investigator Scholarship

The goal of the Young Investigator Scholarship is to bring assistance and attention to emerging young professionals in the field of compost research and to spark interest in the future of the composting industry.

The CCREF Young Investigator Scholarship focuses on supporting undergraduate through PhD students from a college or university in the United States. The research project must be ongoing during the term of the grant and be research in the fields of composting and compost use. More specifically, the ideal candidate will have interest in improving the compost process and the application and the utilization of finished compost to increase drought tolerance, soil nutrient content, reducing erosion and water pollution, and increasing carbon storage in soils to combat climate change.

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ICAW

- 1,800 posters distributed
- All 50 states plus 30 countries
15 sponsoring companies

- Social media outlets

ICAW FB page

USCC FB page

CCREF FB page

LinkedIn

CCREF YouTube

For two to three weeks, leading up to ICAW,
during, and after there were Google Alerts every
day mentioning ICAW



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Compost Operator Training Course

Over 675 students trained to date

2019 Schedule

- Pomona, CA March 11-15
- Ithaca, NY August 5-9
- Raleigh, NC September 9-13
- Denton, TX November 11-15



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Compost Sampling Video

How to properly sample compost as per modified TMECC method

- Finish compost product
- In-process sampling
- Trouble shooting
- Companion guide
- Launched in January 2019
- Funded by:



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Applied Research

Salt Project:

A literature review of all past research on soluble salts in finished compost

- Research completed by University of Wisconsin Oshkosh
- Developing a fact sheet
- Published in January 2019



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International Field Testing Program for Compostable Products

- The online database for the International Field Testing Program (IFTP) facilitates real-world testing of compostable products and packaging in aerobic facilities across North America through an easy to use interface
- The 'user' of the database is a testing partner, whether a facility operator, academic or other researcher
- Admin support guide users in the use of the database and testing materials to conduct in situ testing of compostable products.



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International Field Testing Program for Compostable Products

- Data on the facility's operating parameters and associated disintegration of the test products is collected and aggregated
- Once sufficient data has been collected for the results to be adequately anonymized, it will be released open source
- The intent is to make in-situ testing as barrier-free as possible, while coordinating testing of the same set of sample products across diverse facility types and scales
- This is to enable observation of any correlations between operating parameters and disintegration.



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A Literature Review and Analysis of Compost Aeration Emissions

The Composting Council Research and Education Foundation (CCREF) is seeking technical assistance to research existing and innovative analytical methods for quantifying air emissions from composting operations. There have been increased efforts in recent years to analyze and, in some cases, regulate composting air emissions. Existing methodologies are often costly and the precision and practicality of the methods could be improved. In an effort to provide practical guidance to compost operators, the CCREF seeks a team that will complete the following tasks.

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A Literature Review and Analysis of Compost Aeration Emissions

- I. Identify current air emissions testing methods, testing service providers and costs
- II. Interview compost facilities regarding their experiences in having the analyses completed
- III. Review and analyze air emissions data sets generated by testing completed to date
- IV. Literature review for alternative air emissions testing methods
- V. Provide next steps for improving current air emissions testing methods and implementation

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Future Projects

- Carbon storage in soils using compost: Collection and review of current research application rates based on soil types marketability ecosystem services credits of compost
- Compost Use Green Infrastructure: Review of current research to summarize the volume of nutrient leaching, Nitrogen, Phosphorus and trace metals of compost in engineered soils
- Review the current research on compost's water holding capacity and its role in water conservation and develop a white paper and one-page fact sheet.
- Chemical Contaminant Testing Protocol: Summarize current remediation practices and develop testing protocols for pesticides/herbicides/contaminates in feedstocks & finished composts
- Disease Suppression in Compost: Review current research and develop a background paper on the capacity of compost to suppress disease, including pathogen specific modes of action

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WORC Members
20% off full conference registration
PROMO20

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