Compost Council of Canada Annual Conference 2024

What's Happening in the States

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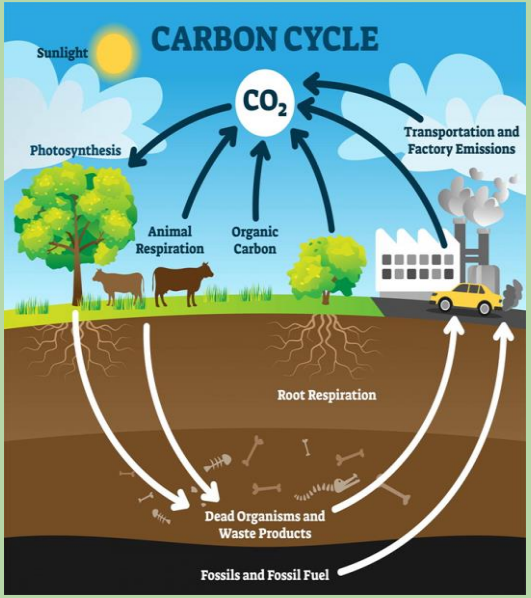
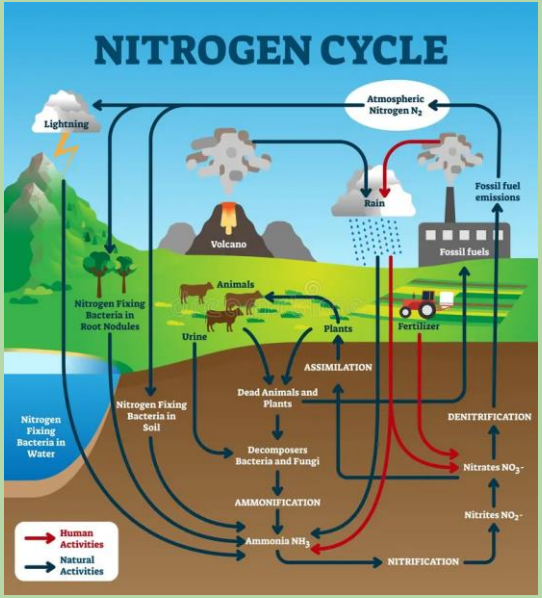
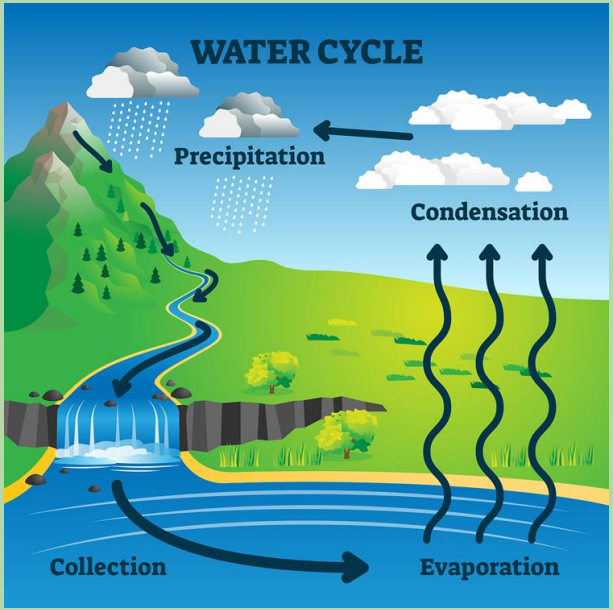
Disruption of Natural Cycles



- Carbon loss from over tilling
- Increase CO_2 emissions
- Less carbon returned to the soil



- Synthetic Nitrogen
- Carbon stripping
- Overuse of synthetics
- Overuse of pesticides
- Loss soil organic matter



- Soil erosion
- Stormwater runoff
- Less infiltration
- Less transpo-evaporation
- Extreme storm events

Restoring the Natural Cycles
Composting & Compost Use

- Composting is an aerobic process producing biogenic CO_2
- Provides natural nutrients
- Adds Carbon as organic matter
- Reduces the use of chemicals

- Organic matter increases infiltration
- Holds & filters sediment
- Remediates pollutants
- Helps recharge ground water

- Provides organic matter
- Increases microbial activity
- Sequesters Carbon
- Adds to increase soil porosity

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Established in 1990

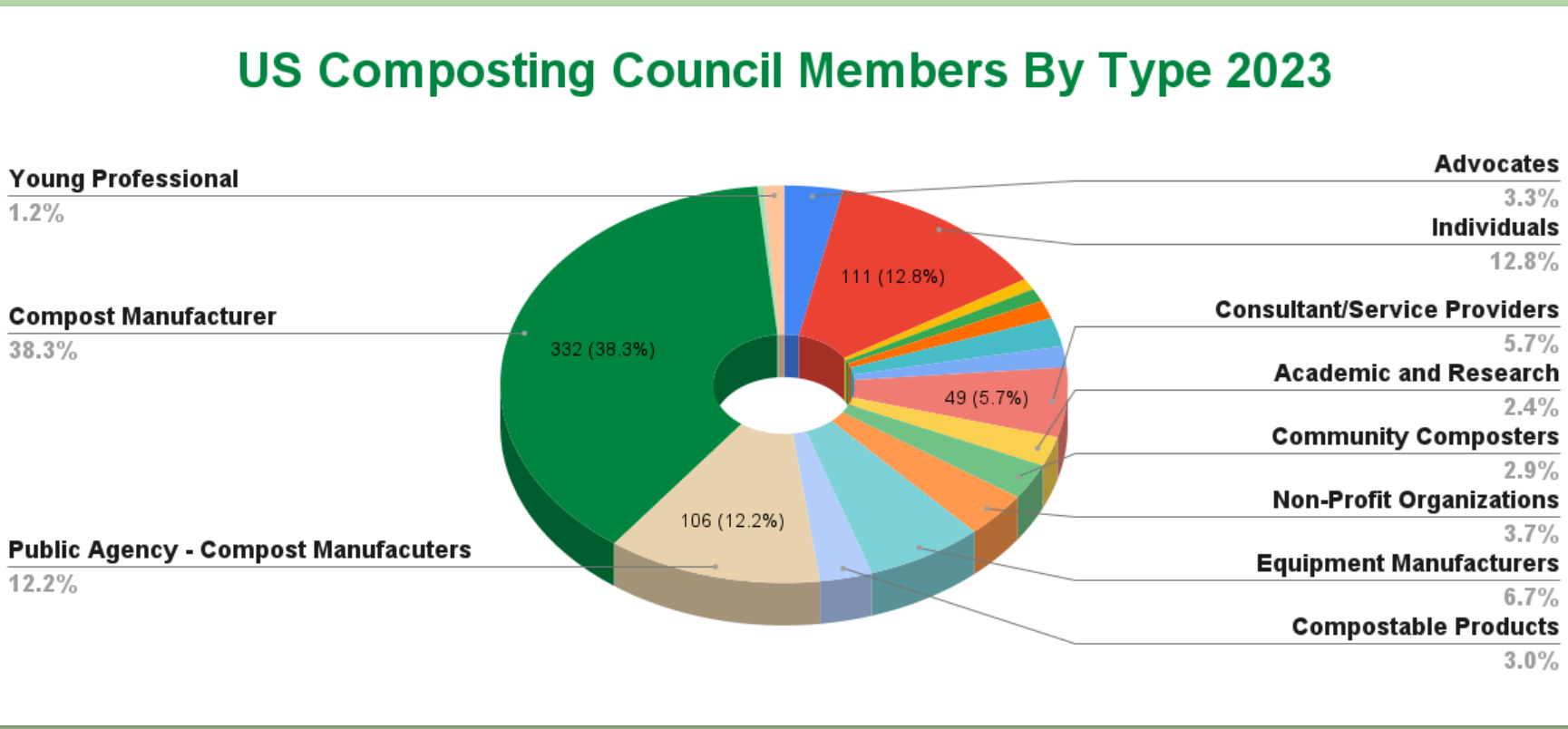
Our Vision

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

Our Mission

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

Who Do We Represent?



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Annual Conference

- Every year we bring 1,600 compost industry professionals together. This coming year will be in Phoenix Arizona Jan 27th-20th.

Membership

- 12 Newsletters a year with vital compost industry news
- 10 webinars a year
- Networking with members, discussion forums and member only benefits
- 15 State Chapters

Seal of Testing Assurance

- Compost Testing and Disclosure
- Certified independent laboratories
- Testing based on throughput
- Heavy Metals and Pathogens
- Display results to customers

Professional Development

- Two Industry Certifications for Professionals
- Compost University
- Compost Career Center

Young Professionals

- Mentoring
- Webinars and Happy Hours
- Networking with fellow YP's and industry newcomers

Target Organics - Resource for Municipalities

Target Organics™
SUPPORTING LOCAL ORGANICS PROGRAMS

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

https://hub.compostingcouncil.org/

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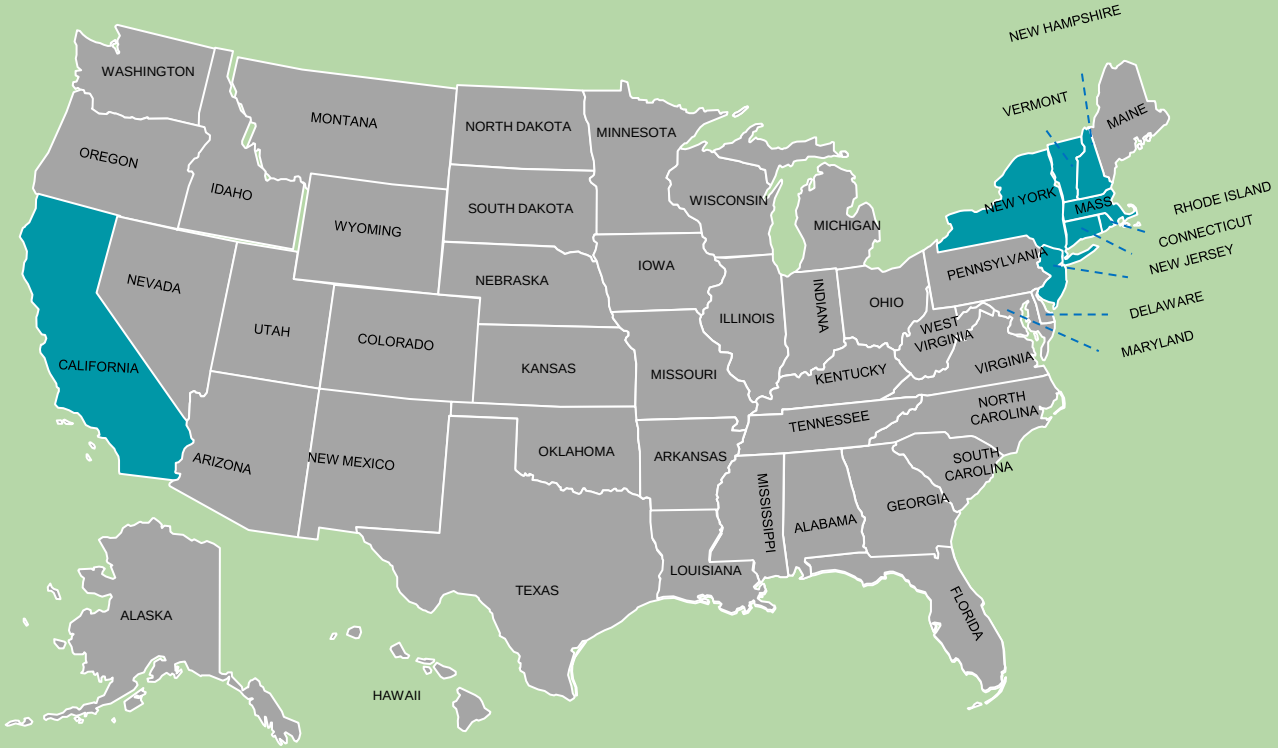
- Full time federal lobbyist
- Visits with congress persons and testifying in congress on behalf of the industry

- Lobby for the industry! Working to get funding for the industry: The Compost Act/ EPA & USDA
- Grants
- Protections from PFAS liability

- The Compost Action Center 20,000 total letters to congress people, state governments and conservationists



State Organic Landfill Bans

- California
- Connecticut
- Massachusetts
- New Hampshire
- New Jersey
- New York
- Vermont
- Rhode Island

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Material composted since 1990

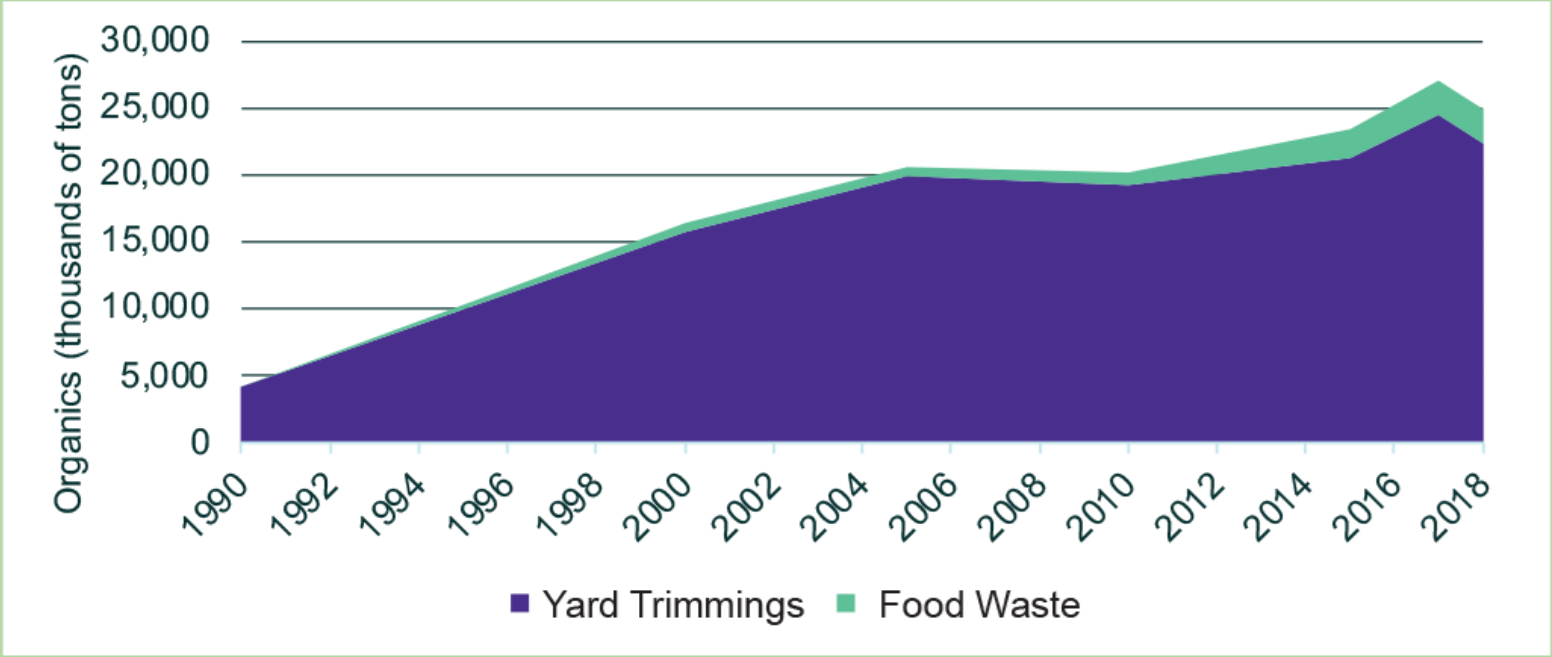

Figure 1. Materials Composted 1990-2018 (EPA, 2020)

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Growth

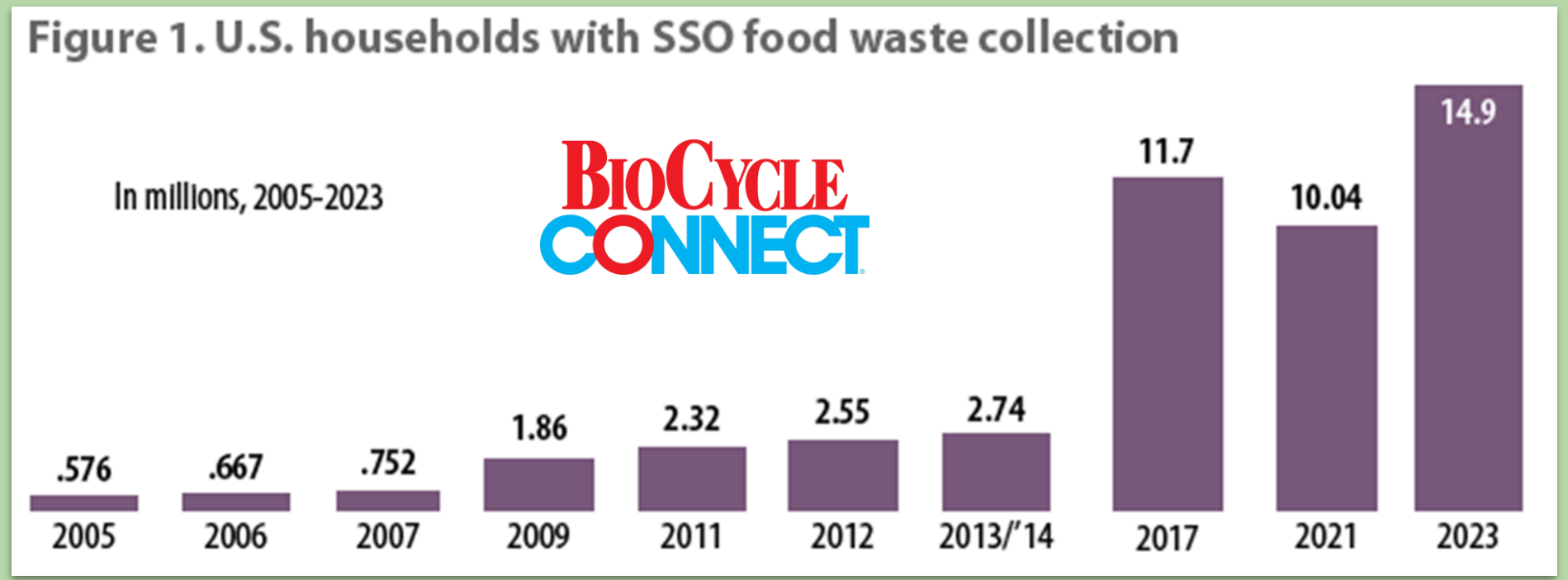
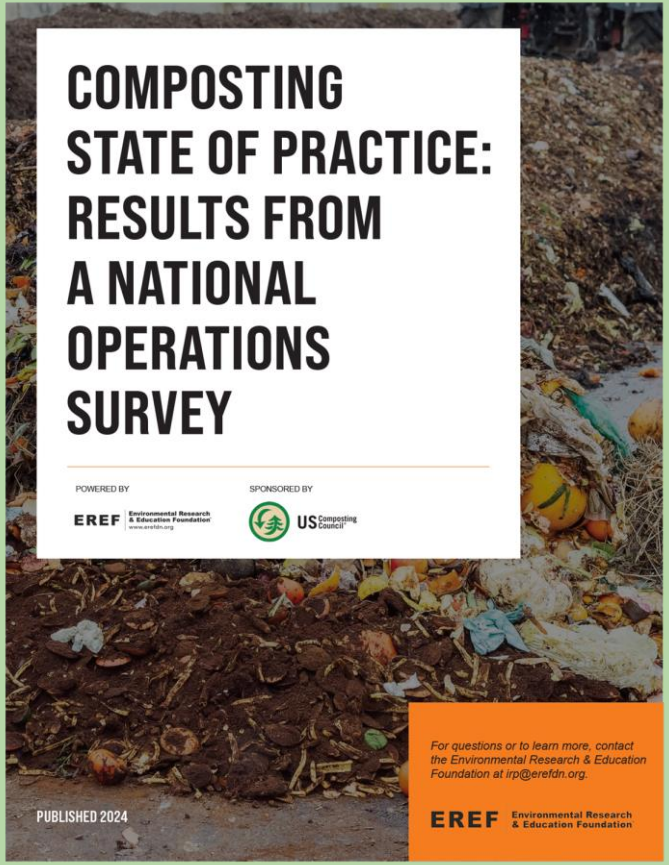


Figure 1. U.S. households with SSO food waste collection
In millions, 2005-2023
BioCycle CONNECT
.576
.667
.752
1.86
2.32
2.55
2.74
11.7
10.04
14.9
2005
2006
2007
2009
2011
2012
2013/'14
2017
2021
2023

2023 Report
Download this report at the USCC's website



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Composting Methodology by Region

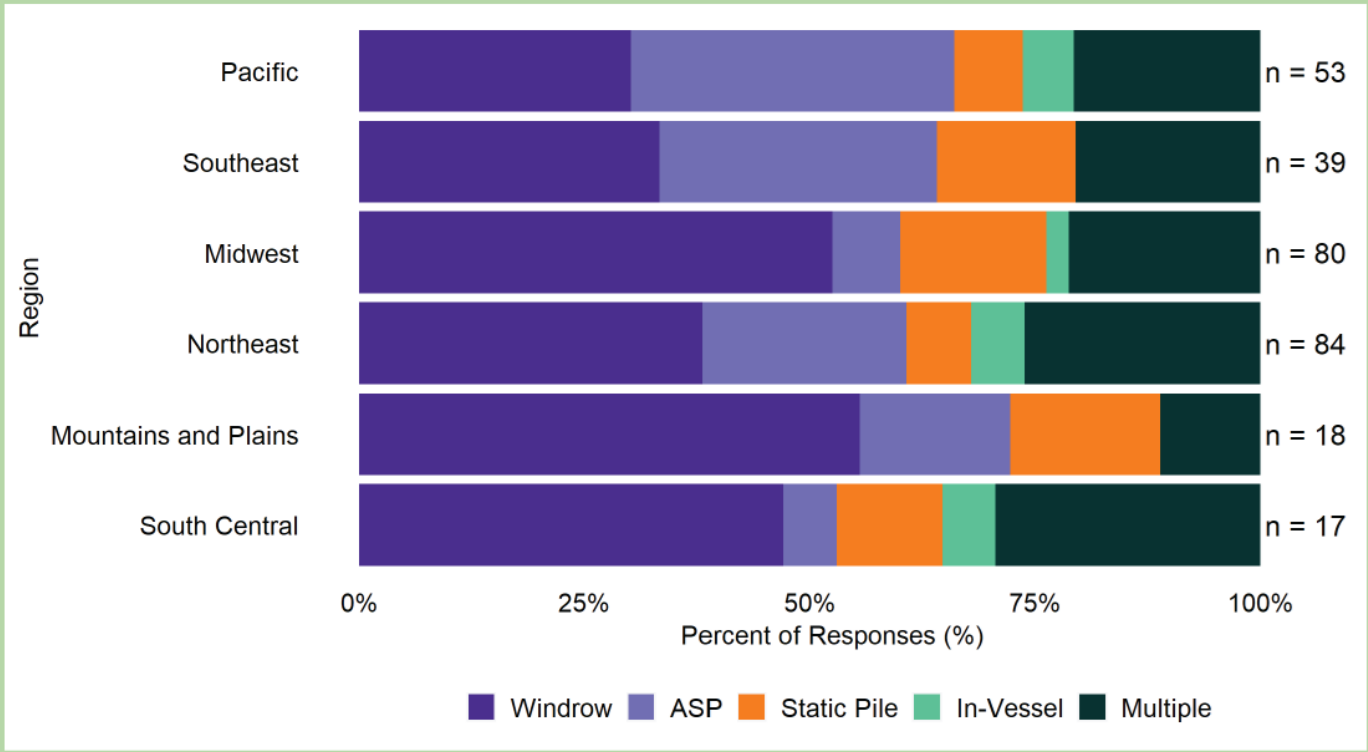

Figure 6. Composting methods used in each region

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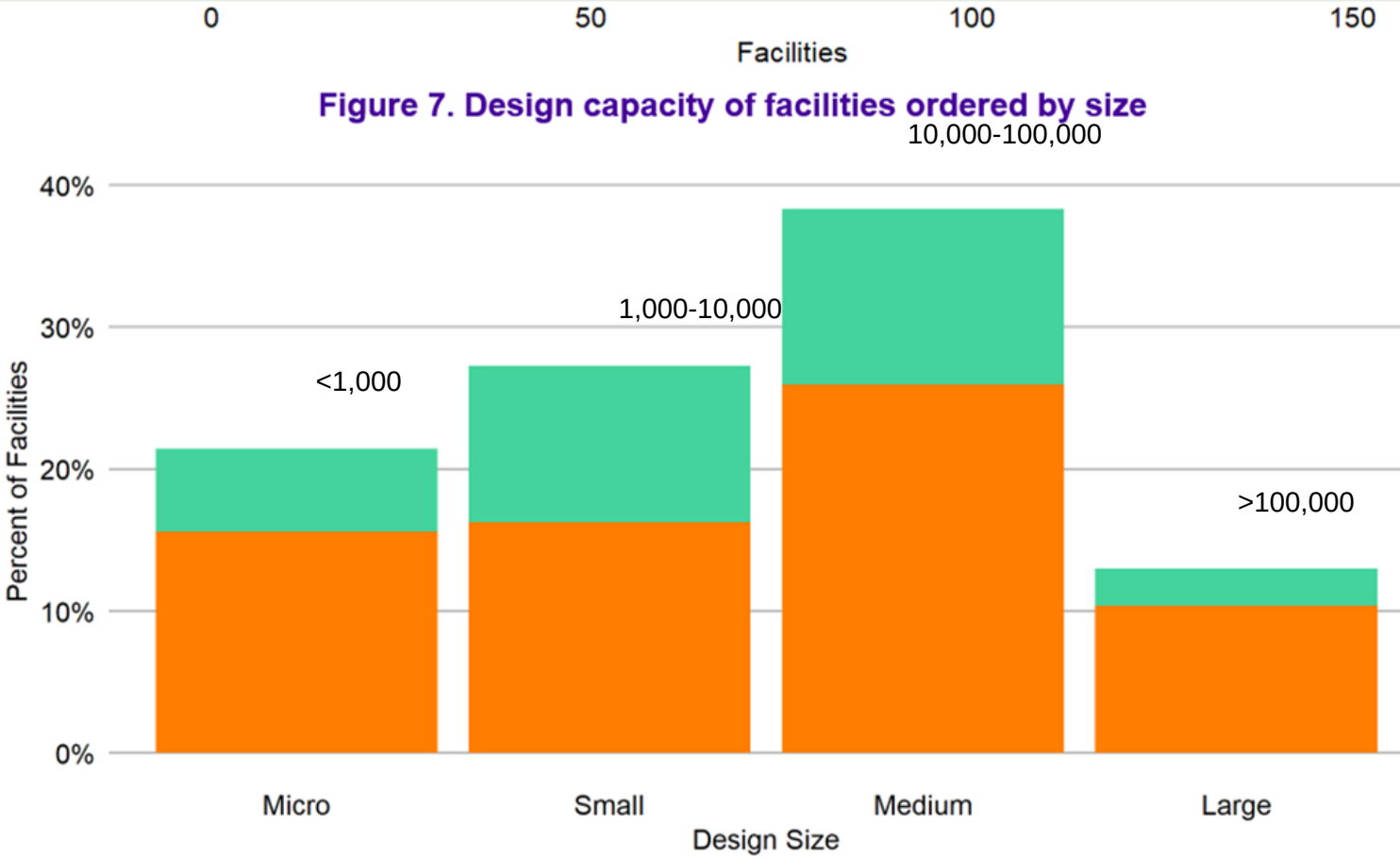
Growth Measurement



Inbound Material vs. Output

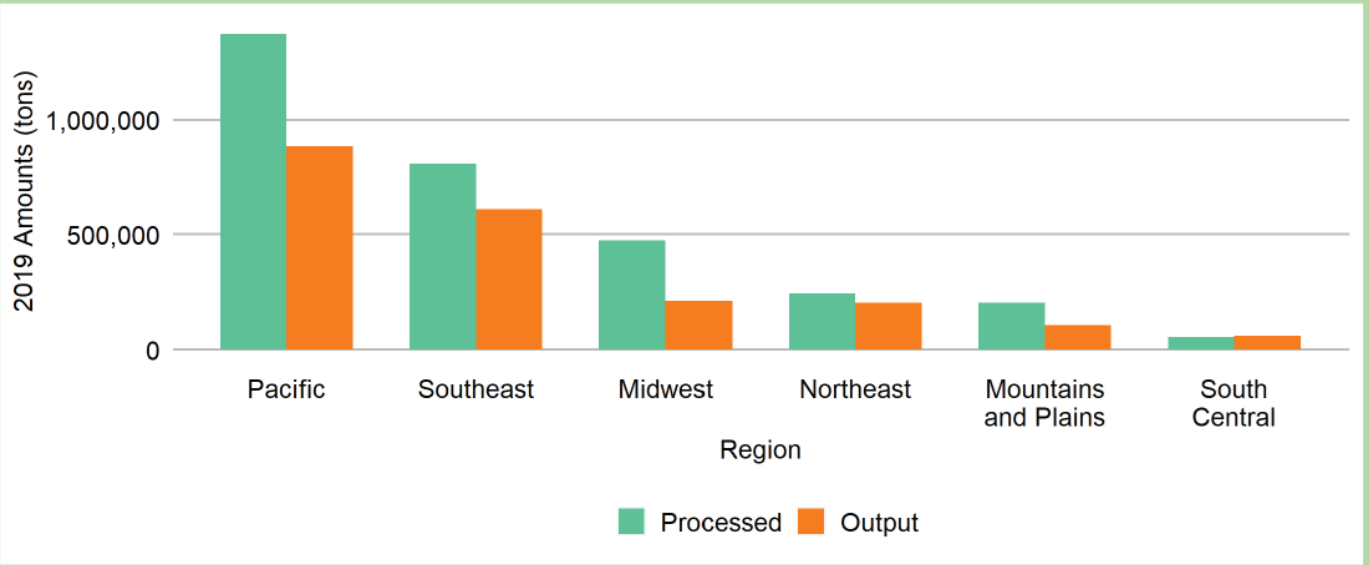


Figure 17. 2019 Amount processed and produced by region

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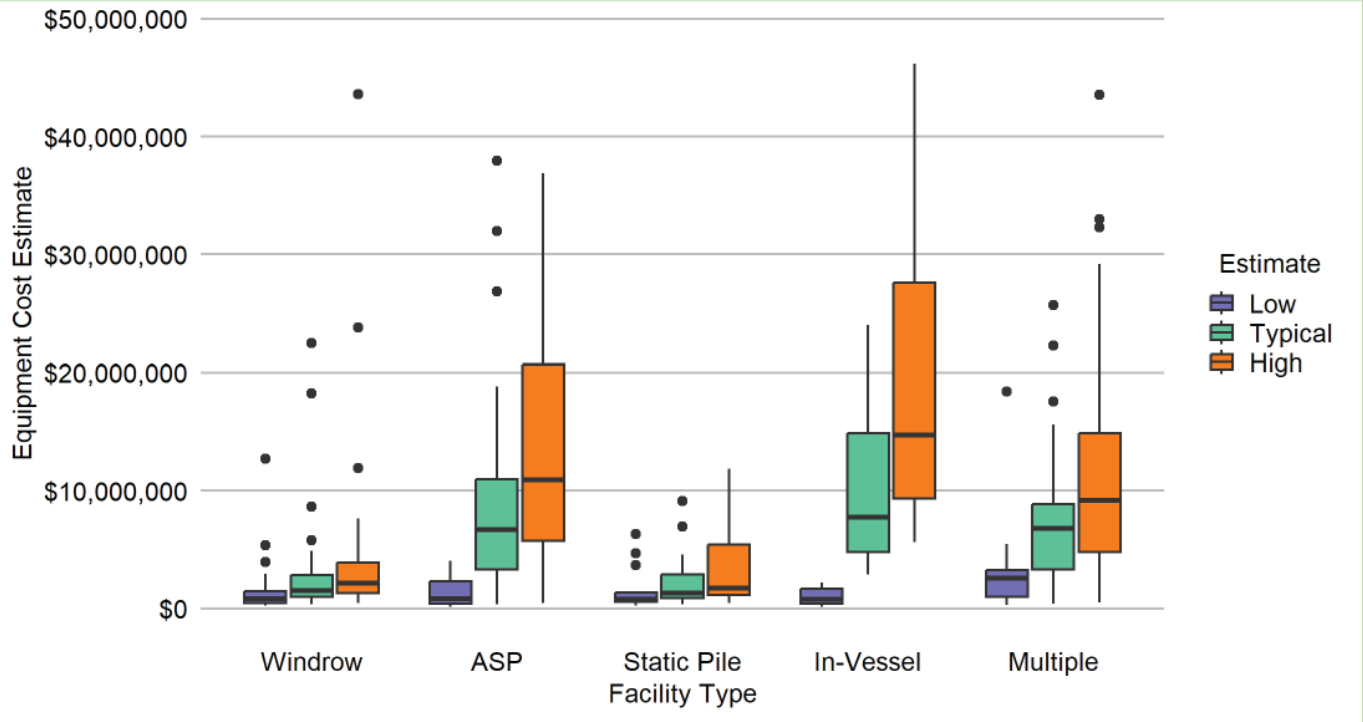
Financial Investment by Facility Type



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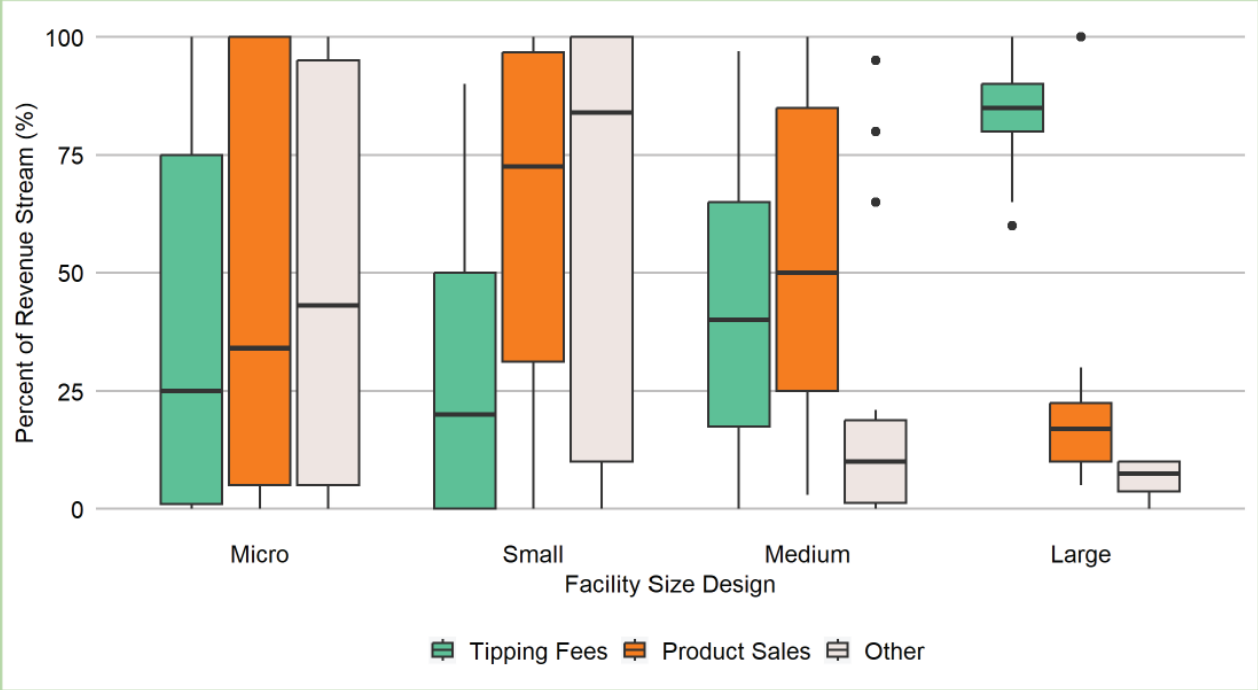
Inbound Material vs. Output



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Key Findings

1. **Growth in the Composting Sector:** The tonnage of organics processed and the number of active composting facilities have both increased in 2019 and 2021 from 2016 levels, showing significant growth in composting.

2. Regional Differences in Facility Characteristics: There are notable regional variations in composting facilities. The Northeast has many facilities with small or micro design capacities, while the Southeast and Pacific regions have fewer but larger capacity facilities, leading in tons processed.

3. Windrows are the Most Common Composting Method: 42% of facilities used windrows; however, over 20% of the surveyed facilities use multiple composting methods. These facilities are responsible for processing more organic waste and producing more compost compared to single-method facilities.

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Key Findings

4. Operational Concerns: Issues affecting day-to-day operations, such as physical contamination and labor, are considered important by the majority of respondents. In contrast, less visible issues like microplastics and chemical contamination are deemed less important, though they may become more significant as new regulations emerge.

5. Revenue Sources and Facility Size: The report highlights differences in revenue sources based on region and facility size. For example, the Pacific and Southeast regions rely heavily on tipping fees, while the Midwest sees a higher percentage of revenue from product sales.

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US Composting Capacity

- There's a need for an additional 1,500-2,000 facilities nationwide
- Yard trimming facilities could be converted to accept food waste

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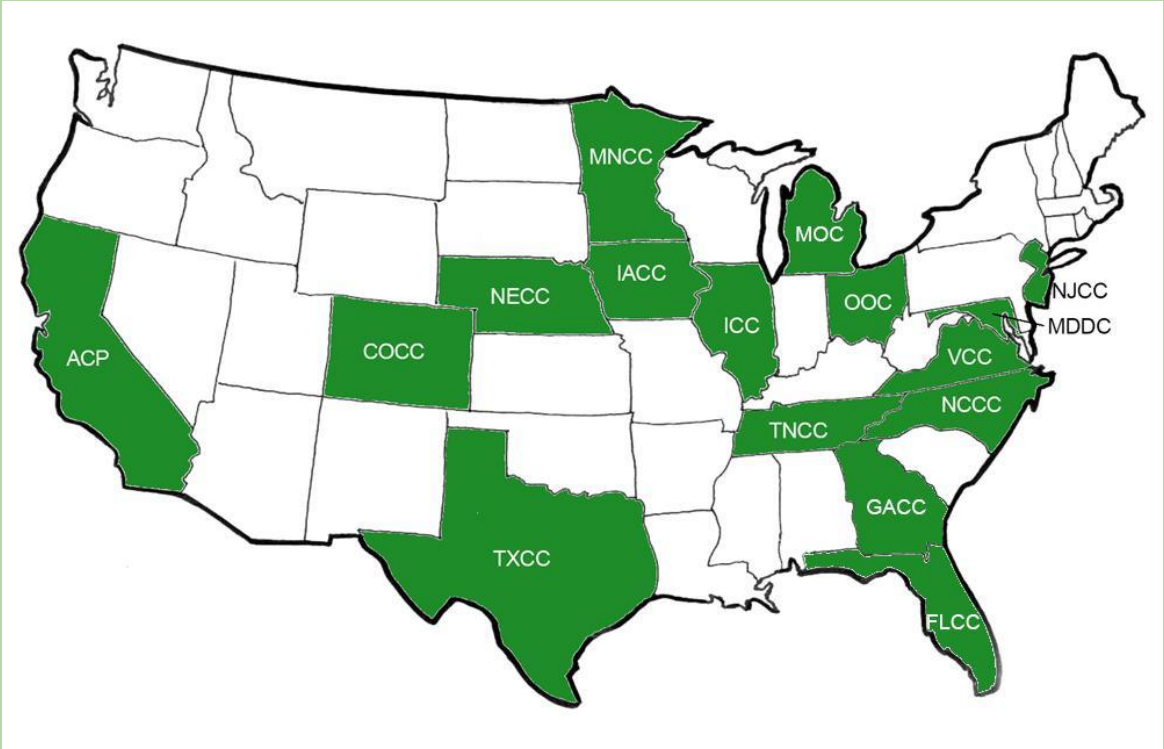
Legislation

USCC STATE CHAPTERS

- Grown to 15 Chapters from just 4
- Adding AZ in 2024



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Federal Grants

(Since 2020)

USDA:

- Composting and Food Waste Reduction ($12M+)
- Climate Smart Agriculture ($104M)
- Fertilizer Production ($500M)-($15M)

EPA:

- SWIFR $46M
- Outreach & Education $12.7M

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Federal Grants

USDA-Conservation Innovation Grant (CIG):

- $4.4M of 5 Years Awarded to the USCC for in field trials in
- WA, CO and CA
  - Cropland
  - Orchard R
  - Rangeland
- Measuring soil carbon
- Developing a web based Decision Support Tool (DST) that reflects a range of agronomic conditions

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Major Issues & Concerns

- Chemical Contaminants
  - Persistent Herbicides
  - PFAS
- Physical Contamination
  - Compostable Look-alikes
  - Microplastics
- Consumer Education
- National compost data by state

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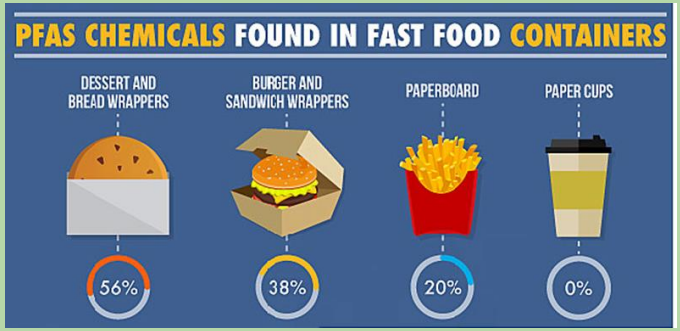

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PFAS

- Known for oil, stain, and water repelling properties
- Flame retardant
- Persistent and do not readily break down (Forever Chemicals)
- Their carbon-fluorine bond is strong and stable
- Highly mobile in the environment
- Due to this, PFAS have been found around the world, even on the North Pole

compostingcouncil.org/PFAS-andcompost

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PFAS Comparisons

PFOA/PFOS Product Comparison	PFOA	PFOS
	µg/kg (parts per billion) – dry wt.	
Microwave popcorn bags[a]	6 - 290	Not available
Concealer cosmetic[b]	2,335.0	ND
Furniture, apparel, bedding (max)[c]	22.5	2.1
Dental Floss[a]	3.0	Not available
Body lotion[b]	3.5	ND
US Household Dust (2001)[d]	142.0	201.0
Soil Background Levels (VT 2019)[e]	0.5	1.0
US Blood Serum Levels (1999-2000)[f]	5.2	30.4
US Blood Serum Levels (2017-2018)[f]	1.4	4.3
Yard Waste Bags[g]	0.8	0.2
US Compost Containing Food Waste[h]	4.7	1.7
US Compost without Food Waste[h]	0.3	1.9
ME, NH & VT Biosolids Compost[i]	12.0	8.7

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PFAS- Health Risks: Exposure Pathways

Implications of PFAS on human health and environment is known and must be quantified for appropriate action

- **Science based regulations**
- **Packaging and product choices**

EPA : PFAS Strategic Roadmap biosolids risk assessment for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), in biosolids.

Completion Dec 2024; currently in peer review

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Physical Contamination

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Best Practices for Acceptance of Compostable Materials

- **Compostable Products are a truly a diversion tool and not simply a substitute for single use plastics**
- **Upstream contamination mitigation efforts**
- **Third Party Certified - BPI/CMA**
- **EPR funding for infrastructure development**
- **Legitimate acceptance of compostable products**
- **Adherence to Compostable Product Labeling Guidelines**
- **USCC Program Support**
  - **Certified Compost Operations Manager (CCOM™)**
  - **USCC Seal of Testing Assurance Program (STA)**

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Labeling Requirements

In addition to third party testing and/or testing to current ASTM Testing standards

- **Limiting compostability claims to products that touch, contain or carry food products, scraps or other organic material accepted by compost manufacturers**
- **Prohibiting misleading or unsubstantiated terms (“biodegradable,” “degradable,”“decomposable”)**
- **Recommending field testing to ensure compatible facility conditions**
- **Requiring compostable products such as produce and food collection bags, and other foodservice ware to be labeled “compostable,” carry a certification mark, and (product depending) distinguish themselves with green, brown, or beige color, tint, or quarter-inch stripe**
- **Prohibiting non-compostable food packaging and food service ware from using identical compostable colors, labeling or marks**
- **Restricting degradation claims to specific, intended environments (i.e., compost, agricultural, soil)**
- **Exempting compostable products from using resin ID codes to reduce confusion with recyclables**

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Physical Contamination

- Compostables Seminar 2021
- A Composter Decision Guide to Accepting Compostables 2022
- USCC/BPI Principles on Compostable Products
- Remove the use of word Biodegradable
- Create consumer awareness
- Field test compostable products

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Consumer Education

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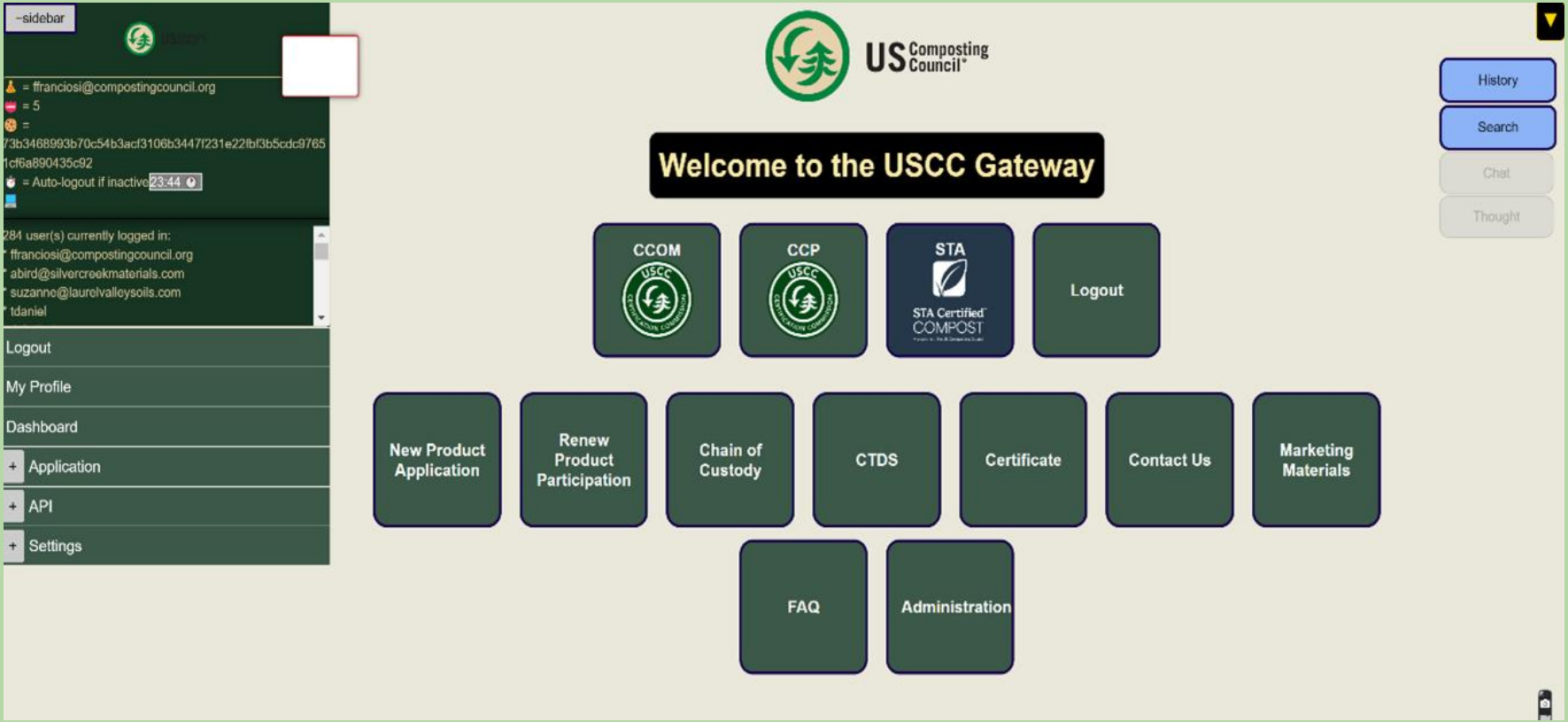
USCC's Seal of Testing Assurance (STA) Program

STA Certified™
COMPOST
A program of the US Composting Council

CARFAx® of COMPOST

USCC's Seal of Testing Assurance (STA) Program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= ffranciosi@compostingcouncil.org
= 5
=
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1cf6a890435c92
= Auto-logout if inactive 23:44
284 user(s) currently logged in:
ffranciosi@compostingcouncil.org
abird@silvercreekmaterials.com
suzanne@laurelvalleysoils.com
tdaniel
Logout
My Profile
Dashboard
+ Application
+ API
+ Settings
US Composting Council
Welcome to the USCC Gateway
CCOM
CCP
STA
STA Certified COMPOST
Logout
New Product Application
Renew Product Participation
Chain of Custody
CTDS
Certificate
Contact Us
Marketing Materials
FAQ
Administration
History
Search
Chat
Thought

What is the Seal of Testing Assurance (STA) Program

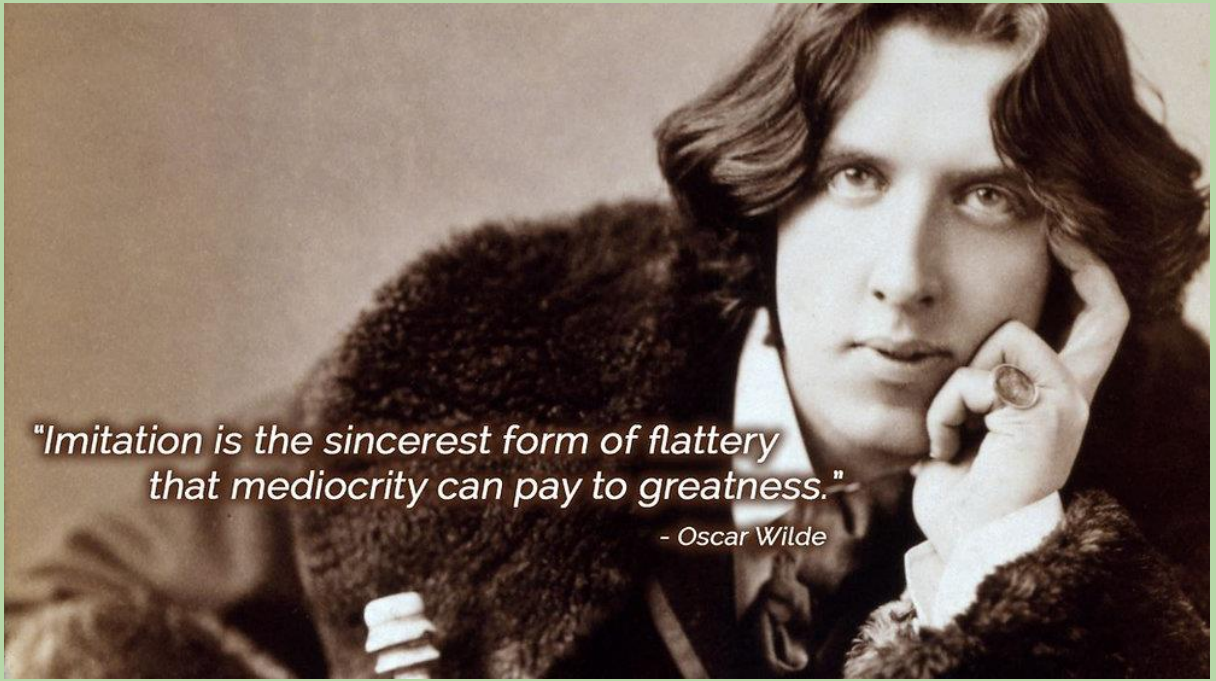
Over 400 Products Certified in the Program

325 Participating Compost Facilities

Weekly Update Within Active Participant Database - LAs and other end users can verify participation.

10 STA Certified Labs Across the Country

So called Kitchen Composters



… however, Composter's are people not appliances and people produce Compost!

Sponsored

Lomi

https://www.lomi.com › kitchen-compost

Say Goodbye to Kitchen Waste – The E

Solve your daily food waste problem. **Composting** is

Sponsored

Amazon.com

http://www.amazon.com/shop/deals

Kitchen Composter - View Ratings and

Read Customer Reviews & Find Best Sellers. Free, Easy

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Best Products Reviews

https://www.bestproductsreviews.com

Top 10 Electric Compost Bin of 2023 -

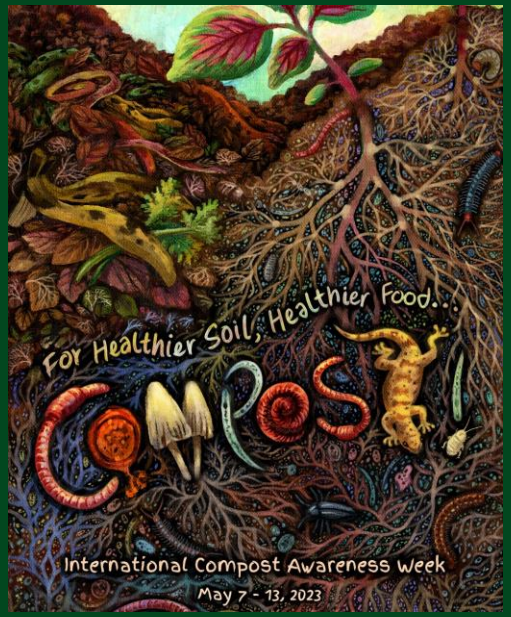
Find and compare the best electric **compost** bin base

The Compost Research & Education Foundation

We are a non-profit 501(c)(3) organization enhancing the composting industry by supporting scientific research, increasing awareness, and educating practitioners and the public to advance environmentally and economically sustainable organics recycling.

International Compost Awareness Week (ICAW)

- **Goal**: Work together to raise public awareness on the importance of recycling organics and the benefits of using compost
- Celebrated during the first full week of May. (May 4 - 10, 2025)
- Started in **Canada** in 1995, CREF runs the program in the US.
- CREF joined the International Compost Alliance in 2022 and works closely with partners to promote ICAW worldwide



Compost Operations Training Course (COTC)

- Comprehensive 5-day, hands-on training held throughout U.S.
- Internationally-renowned; attendees have come from U.S.A. and 24 other countries (including 16 Canadians)
- 50+ trainings held since 2010
- 1,600+ attendees to date
- Target audience is facility managers, marketers, consultants, regulators

Compostable Field Testing Program

- International research platform collecting field test data from composters since 2016
- “On-the-ground” field testing of compostable products at active aerobic organics processing facilities
- Data collected represents more than 30,000 units of packaging, 82 types of packaging/products, and 20 diverse composting facilities
- Releasing an open-source database late 2024 with the University of Chicago Data Sciences Institute
- Collaborating on a standardized field test method under ASTM

COMPOSTABLE FIELD TESTING PROGRAM

CREF Research Projects

Most recent: *Review and Analysis of Compost Used in Stormwater Bioretention Systems* (2023)

- Systematic literature review by St. Anthony Falls Laboratory, University of Minnesota
- Also identified gaps/needs, including more informed understanding of nutrient release
- Highlighted need for analysis of composts used

Other previously-funded research projects:

- *Compost Use Applications - A Return on Investment* (2022)
- *Compostable Plastics Literature Review* (2021)
- *Soluble Salts in Compost and Their Effects on Soil* (2020)

Webinars

Webinars benefit a wide array of compost creators, users, and other stakeholders:

- Compost manufacturers & community composters
- Conservation specialists & other end users
- Regulators & public-sector employees
- Researchers & educators

Recent Webinars:

- 3-part series on composting human remains
- *How Compost Helps Address Climate Challenges: Drought & Fire Remediation*
- *PFAS and Compost Research: The Importance of Informed Regulatory Decision-Making* (collaboration with USCC)
- *Conduct Your Own On-Site Compost Testing for Persistent Herbicides*


January 27-29 Phoenix, Arizona
COMPOST 2025
USCC Conference & Tradeshow
COMPOSTCONFERENCE.COM EARLY REGISTRATION IS OPEN!