

connecticut compost conference

2024



Advocate • Connect • Educate • Market

#### We Speak for the Compost

#### **Our Mission**

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

#### **Our Vision**

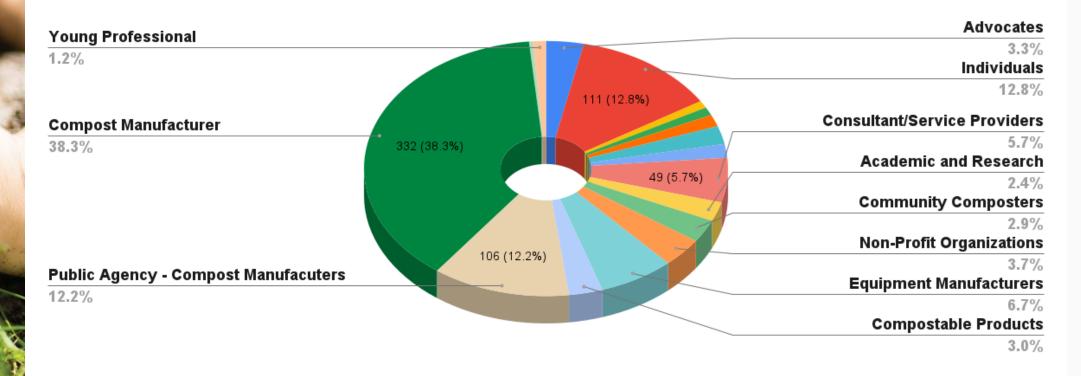
We believe compost manufacturing and compost utilization are central to creating healthy soils, clean air and water, a stable climate, and a sustainable society.



#### Who Do We Represent?

#### Advocate • Connect • Educate • Market

#### US Composting Council Members By Type 2023





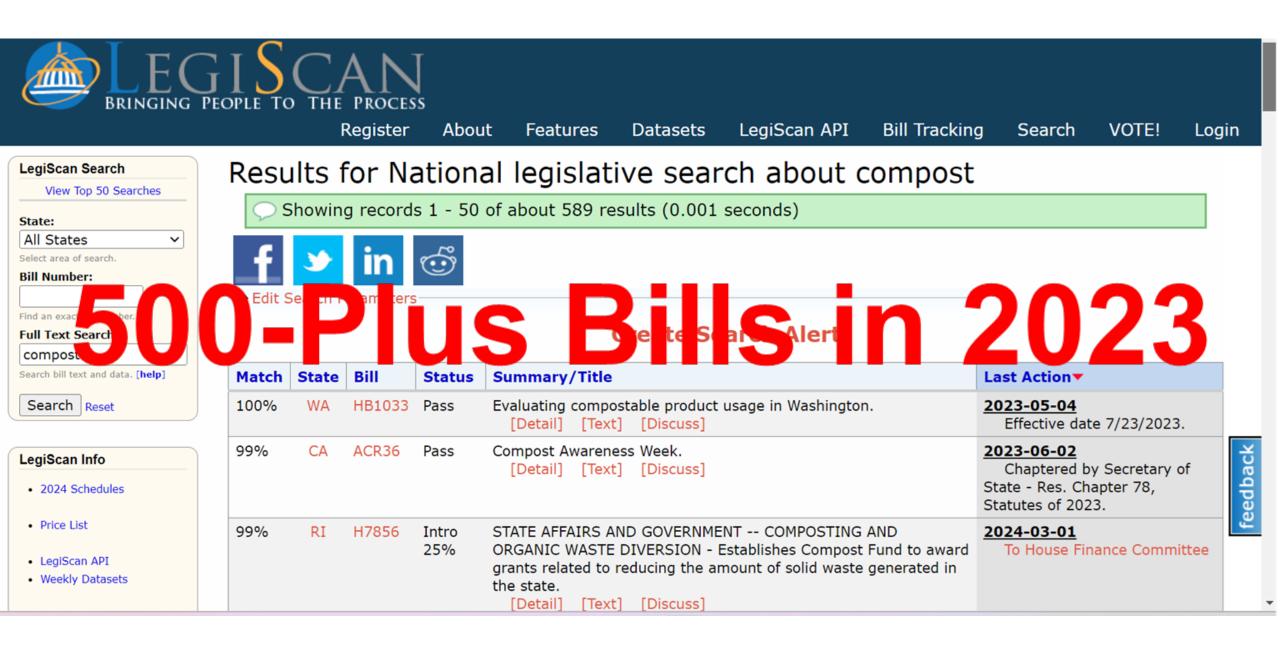
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#### **Connecticut Members**

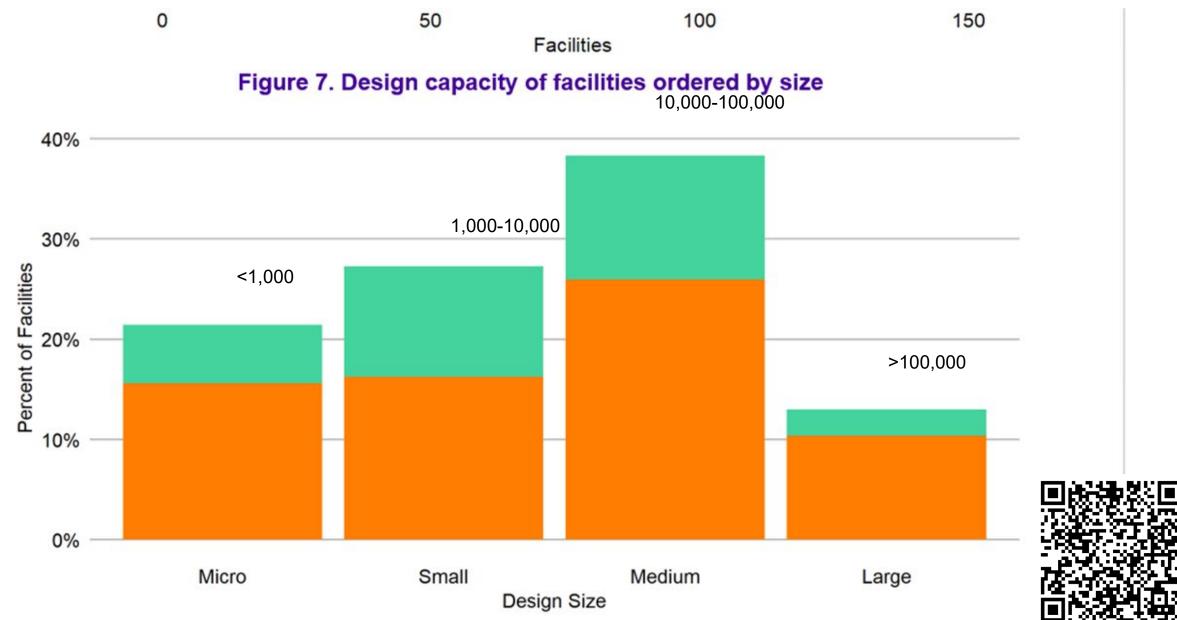
Sam King Blue Earth Compost Matt Heslin Clearspan Fabric Structures Paul Darby Novamont Maura Devellis Novamont Dan Martens Novamont **Domingo Medina Peels & Wheels** Composting Brian Freeman Robinson+Cole Frank Schuster Smile Beverage Werks David Aldridge Southeastern CT **Regional Resources Recovery** Joe Lucas III

#### www.compostingcouncil.org/memberjoin

# **GOOD TIMES for COMPOST!**

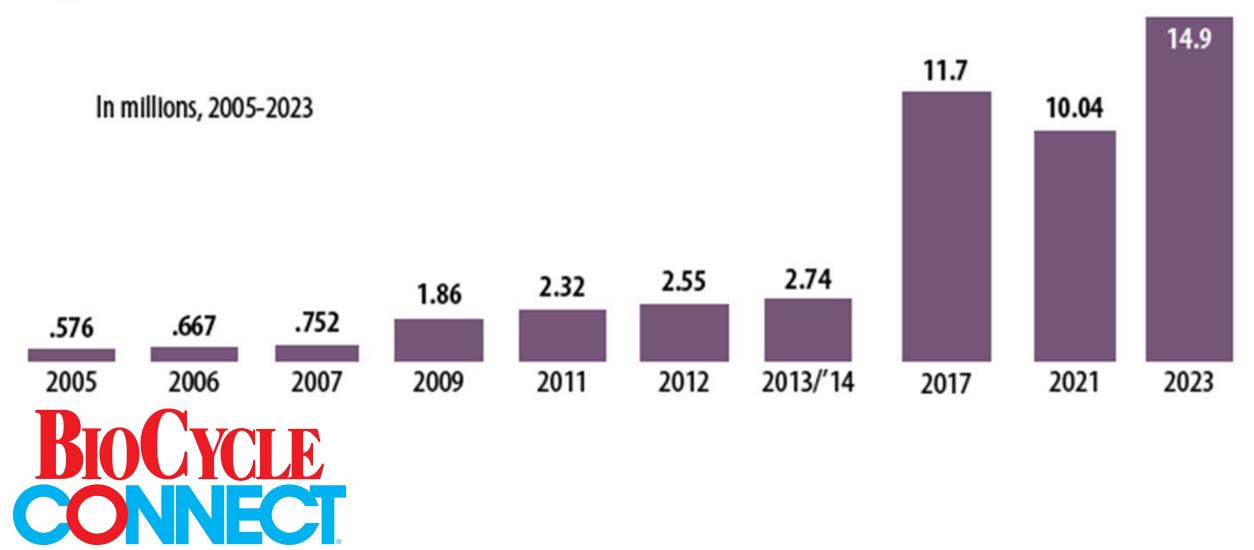


# **GOOD TIMES for COMPOST!** Growth Measures



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Figure 1. U.S. households with SSO food waste collection



# GOOD TIMES for COMPOST!Grants, Private Equity and Financing

FEDERAL (since 2020) USDA:

Composting and Food Waste Reduction (\$12M+) Climate Smart Agriculture (\$104M) Fertilizer Production (\$500M)-34%-(\$15M)

#### EPA:

SWIFR \$46M Outreach and Education \$12.7M

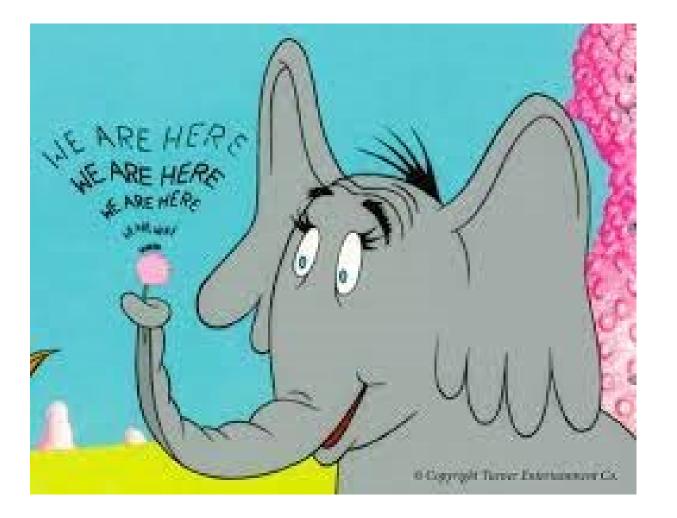


**PRIVATE** (ex): REFED,

Zero FoodPrint-\$2.21M, 252 projects



# **GOOD TIMES for COMPOST!** We are here!



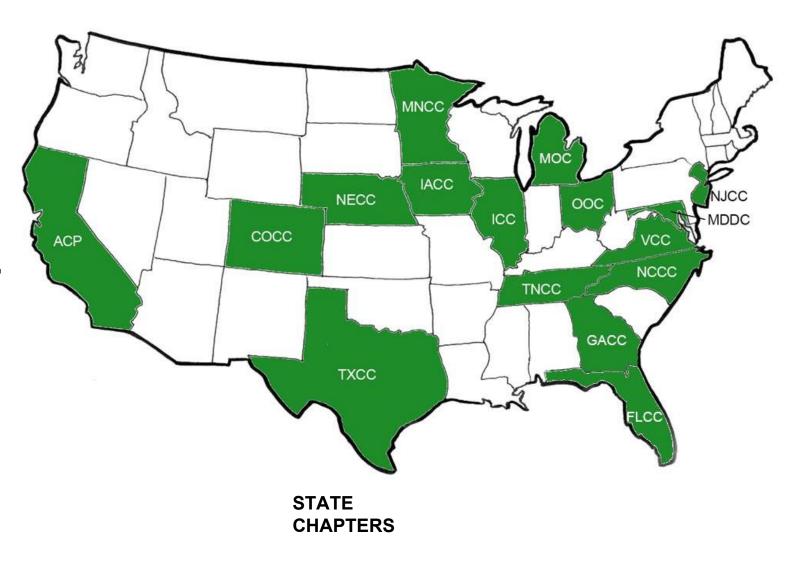
The Recycling and Composting Accountability Act



# **GOOD TIMES for COMPOST! USCC Metrics**

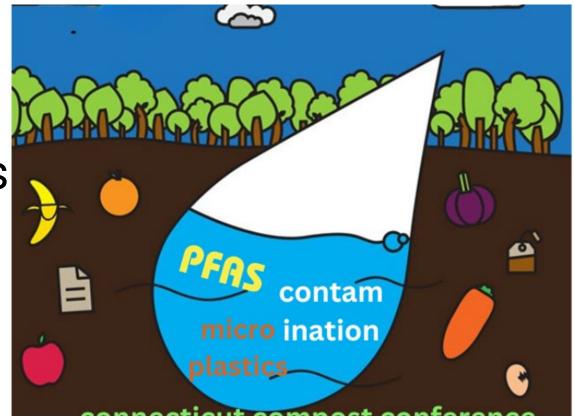
- **MEMBERSHIP: 25% growth**
- **COTCS-selling out**
- Conferences--doubled hit 1,600 in florida
- Grown to 15 chapters from 4





# **The Speed Bumps!**

- Emerging Contaminants
  (PH, PFAS, Microplastics)
- Contamination
- Consumer Education/ Misalignment



### **The Speed Bumps: PFAs**

•Known for oil, stain, and water repelling properties

•Flame retardant

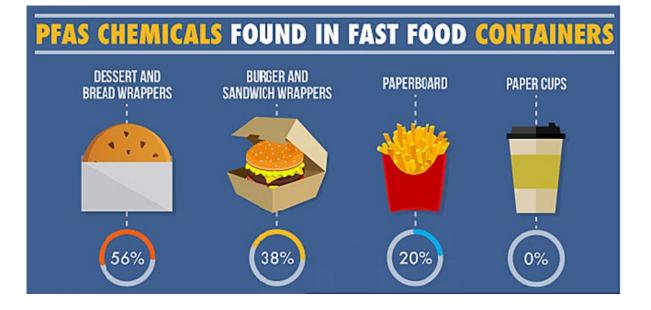
•Persistent and do not readily break down (Forever Chemicals)

- •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-and-compost

## **The Speed Bumps: PFAS**







## **The Speed Bumps: PFAS**

Feedstock—--Rainwater—Groundwater—-Air Emissions







# The Speed Bumps: 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* 

## The Speed Bumps: PFAS Comparisons

PFOA/PFOS Product Comparison	PFOA	PFOS
	µg/kg (parts per billion) – dry wt.	
Microwave popcorn bags <sup>a</sup>	6 - 290	Not available
Concealer cosmetic <sup>b</sup>	2,335.0	ND
Furniture, apparel, bedding (max) <sup>c</sup>	22.5	2.1
Dental Floss <sup>a</sup>	3.0	Not available
Body lotion <sup>b</sup>	3.5	ND
US Household Dust (2001) <sup>d</sup>	142.0	201.0
Soil Background Levels (VT 2019)*	0.5	1.0
US Blood Serum Levels (1999-2000) <sup>f</sup>	5.2	30.4
US Blood Serum Levels (2017-2018) <sup>f</sup>	1.4	4.3
Yard Waste Bags <sup>9</sup>	0.8	0.2
US Compost Containing Food Waste <sup>h</sup>	4.7	1.7
US Compost without Food Wasteh	0.3	1.9
ME, NH & VT Biosolids Compost <sup>i</sup>	12.0	8.7

# The Speed Bumps: PFAS Case Study #1 Mass Natural

- 1987-began Mass Natural Compost Facility
- 2006-began taking paper factory sludge from Seaman Paper
- 2022: groundwater in region contaminated
- Put Mass Natural out of business
- Seaman Paper has denied any responsibility
- No background levels were tested



# The Speed Bumps: PFAS Case Study #2 Pima County AZ

 2019: Pima County placed a moratorium on landspreading of biosolids

Dr. Ian Pepper-University of Arizona

- Biosolids went from a cost of \$1.58M annually to \$3.18 annually during the study and moratorium
- Findings: there is minimal transport of PFAS through the top soil and negligible concern for groundwater. PFAS concentrations rapidly decreased with depth.
- Pima County reinstated its land application program.



# The Speed Bumps: PFAS Case Study #3 Kennebunkport ME

- Selling Class A biosolids compost for \$5/ ton
- Shut down composting program-
- Landfilling in hazardous waste landfill at \$150/ton
- Cost of installing a centrifuge to remove all the liquid for transportation



## The Speed Bumps: The Benefits Outweigh the Risks



Complete bans of biosolids land application, composted or otherwise, eliminates these benefits as the biosolids are redirected to hazardous waste landfills or incineration.

## The Speed Bumps: PFAS Case Study #4

#### Test by homeowner

 Showed .68 PFOS and .39 PFOAS similar to soil background levels in tests done in New England

Uncertainty about test and crosscontamination The Speed Bumps: PFAS and CERCLA Designation CERCLA = Comprehensive Environmental Response, Compensation and Liability Act (SUPERFUND)

 We are passive receivers.
 CERCLA: "Polluters Pay" Compost facilities are NOT Superfund sites!
 Composters HAVE been brought into liability. We need a guarantee.



# The Speed Bumps: PFAS What Can Composters Do?



1. Evaluate your past & present feedstocks

- 2. Testing? Think it through.
- 3. USCC resources
- 4. Prepare for customers and media.
- 5. Shout the benefits of compost on your website and other communications!

## What Can Advocates Do?

- 1. Educate others about the benefits of compost!
- 2. Watch local LTEs/ media stories for "apples to oranges" comparisons and non-science backed assumptions.
- Follow USCC"s Compost Action Center to make your voice heard

   a. research on COMPOST plant uptake
   b. exempting composting from CERCLA so that the real polluters pay
- 4. Advocate in your state for bans on products containing intentionally added PFAS <u>www.saferstates.com</u>

## Speed Bumps: MICROPLASTICS: The Science is Underway



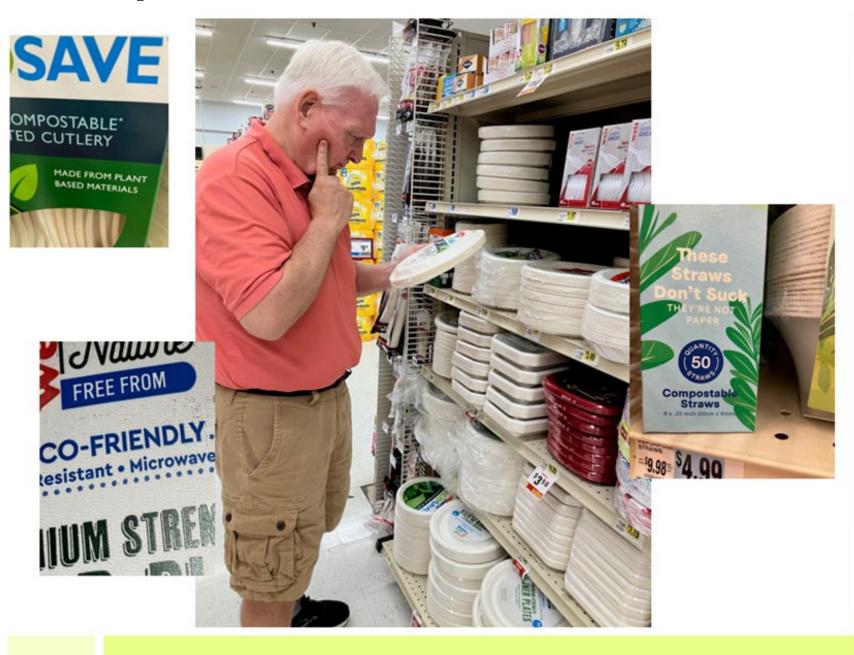
#### Eric Roy: Gap between scientists and media (Volker et al 2020)

"Most scientific studies (67%) frame microplastics risk as hypothetical or uncertain, while 24% present them as established In contrast, most media articles reporting on microplastic impacts (94%) imply that risks of microplastics exist and harmful impacts are highly probable • We need to rigorously evaluate the risks in Vermont, as well as the potential trade-offs of policy

## **Speed Bumps: CONTAMINATION**



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### Speed Bumps: CONTAMINATION: Look Alike Products, Labeling and EPR

#### California, Colorado, Washington, Minnesota, Maryland Key Labeling Principles:

\*3rd Party Certification based on ASTM \*Encourage Field Testing as well as Lab Testing

\*Green/Beige colors/striping depending on product

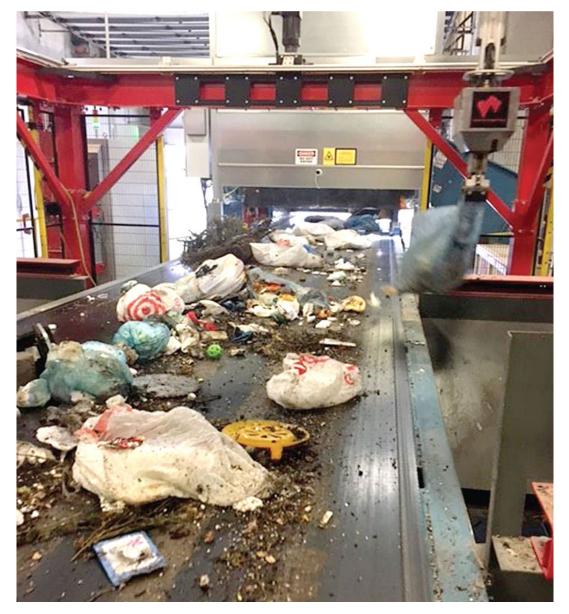
\*\*Education and enforcement

- no greenwashing allowed





## Speed Bumps: CONTAMINATION Extended Producer Responsibility



Keys:

**Needs Assessment** 

Seat on Producer Advisory Committee or PRO

Composting as a recipient of funding

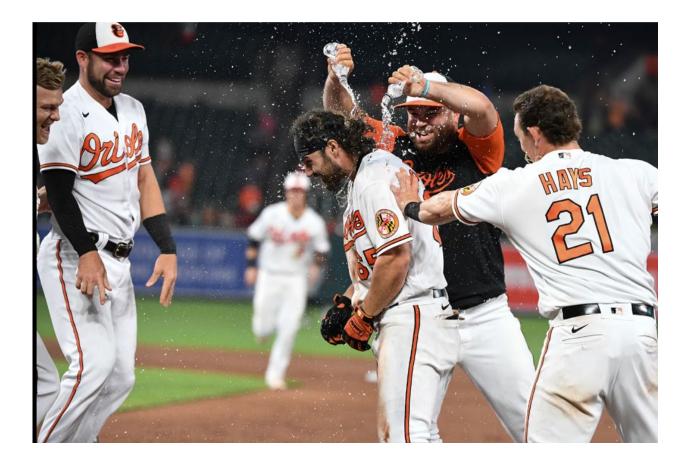
Eco-modulation-higher fees for less recyclability/compostability

## Other Things In Play Infrastructure

- Permitting
- Zoning

#### Feedstock challenges

- VT Source Separation Policy
- Depackaging
- Misnomers
- "Electric composters"
- "Composting" to describe any kind of pickup or product of organics recycling







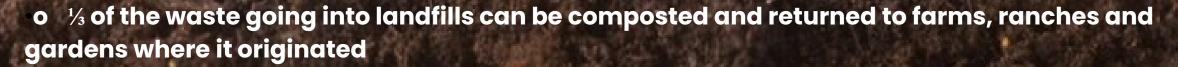
1,406 TOTAL SUPPORTERS



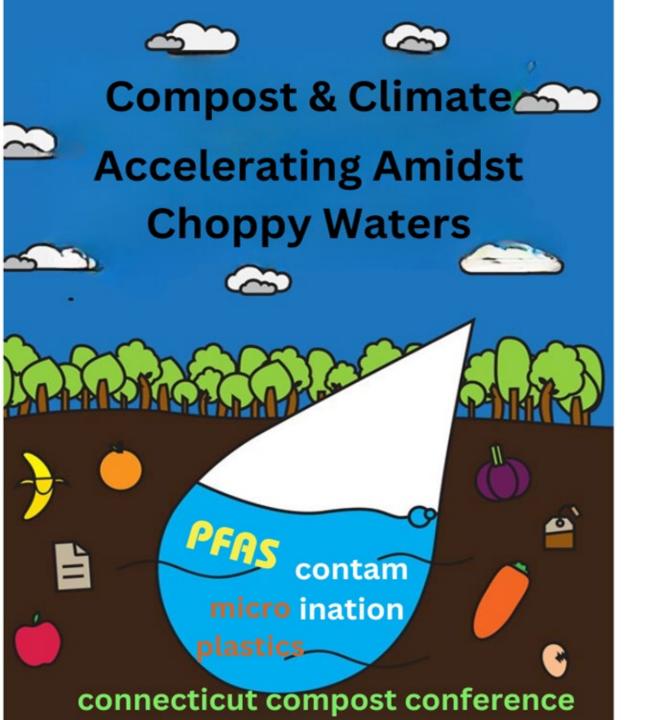
#### Don't Forget --Why We're All Here

#### Composting is important because:

Reducing methane emissions by removing organic waste from landfills is one of the most impactful and cost-effective ways we can make a difference in combating climate change



- o It returns valuable nutrients to the soil and helps maintain soil quality and fertility.
- o It reduces water use by increasing water retention in the soil and filtration during floods
- o Reduces use of chemical fertilizers: compost enables improved plant uptake of nutrients
- It reduces use of pesticides healthy soils help suppress disease



#### **THANK YOU!!!**

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Deputy Director/Advocacy, Chapter and Corporate Relations Director