

### **Community Composting in Urban Areas**

#### Brenda Platt

Director, Composting for Community Initiative

NERC & NEWMOA Webinar Strategies for Residential Food Waste Reduction & Composting Dec. 13, 2022



#### **COMMUNITY COMPOSTING DONE RIGHT**

A Guide to Best Management Practices by Linda Bilsens Brolis and Brenda Platt

#### Neighborhood Soil Rebuilders

ILSR.ORG

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sting does not have to be

brown and green materials, regularly urn (mix) the pile, and control the

Questions? How can we improve this

nide? ontact Linda Bilsens Brolis at:

COMPOSTER TRAINING PROGRAM

#### IJSR INSTITUTE FOR Local Self-Reliance



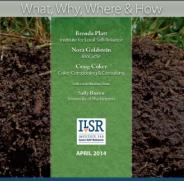
What & Why	Composting	5 Steps to Get		
Compost • p. 2	Basics • p. 3	Started • p. 7		
What is compost and composting? Why should we compost?	Learn what materials to compost and the importance of air, water, and size.	Clarify team and method, secure tools, collect ingredients, make a recipe, build a pile.		
Health & Safety Considerations •	Troubleshooting	Using Finished Compost • p. 22		
p. 17 Practice good hygiene and protect against airborne fungi.	Odors? Nothing happening? Learn tips for dealing with challenges.	Compost can be incorporated into garden planting beds or used as a mulch.		



**EXECUTIVE SUMMARY** June 2008













WWW.ILSR.OR

**YES! IN MY BACKYARD:** 

A Home Composting Guide for Local Government

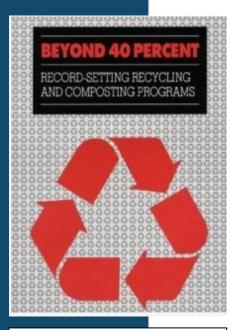
by Brenda Platt and Colton Fagundes

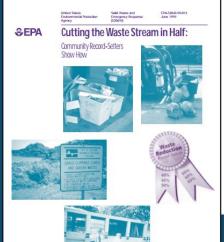
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#### €EPA





United States Solid Waste and Environmental Protection Emergency Response (5306W)

Agency

EPA-530-F-98-023 September 1998 www.epa.gov/osw

#### Don't Throw **Away That Food**

Strategies for Record-Setting Waste Reduction

The Waste Reduction Record-Setters Project fasters development of exceptional waste reduction programs by documenting successful ones. These programs can be used as models for others implementing their own programs to reduce garbage. This fact sheet packet is oriented toward commercial and institutional food discard generators, and highlights record-setting food recovery programs.

#### Food discards: what are they and where do they come from?

Food discards (füd dis-känds): food preparation wastes and uneaten food from households. commercial establishments, institutions, and industries.<sup>1</sup>

Major generators: restaurants, supermarkets, produce stands, school cafeterias, hospitals, food processors, farmers, hotels, prisons, employee lunch rooms, and community events.

Examples: leftovers, outdated bread, wilted lettuce, surplus canned goods, vegetable peels. and fruit pits.

#### Why recover food discards?

ccording to the U.S. Department of Agriculture Economic Research Service. If 5% of consumet. Aretail, and food service food discards from 1995 were recovered, savings from landfil costs alone would be about \$50 million dollars annually.<sup>2</sup> Recovering 5% of losses from these three sources "would represent the equivalent of a day's food for each of 4 million people." Food discards comprise 6.7% by weight of the total U.S. municipal solid waste stream. In 1995, 14,000,000 tons of food discards were generated. Of this, only 4.1%, 600,000 tons, was diverted, or recovered, from the traditional disposal destinations of landfills and incinerators.<sup>4</sup>

Almost any business can successfully create fewer discards by buying less, and can divert. food discards from landfills. Businesses with record-setting food diversion programs are recovering 50 to 100% of their food discards and reducing their overall solid waste by 33 to 85%. Often, recovery of food and other organics is just one part of a successful overall waste reduction program that realizes both environmental and economic benefits. Your program can allow you to:

- Avoid trash collection and disposal fees;
- Provide food to the needy:
- Recover the nutrient value of the food as compost or animal food;
- Help your community meet local and state waste reduction goals:
- Sustain local industries and jobs; and
- Create an improved public image for your business.



#### Model Programs — Diversion Strategies and Rates

Record-Setting Program	Diversion Strategies	Materials Collected	Food Discards and Other Organics Recovered (tons per year)	% Estimated Food Discards and Other Organics Recovered	% Total Waste Stream Recovered*
Del Mar Fairgrounds, California	Off-site composting; on-site vermicomposting; rendering	Discards from fair food vendors, paper plates, cups, napkins, towels; vegetable and fruit scraps and other discards from on-site kitchen; cooking oil	51 (1996)	75%	85%
Fletcher Allen Health Care, Vermont	Off-site composting; rendering; donations	Kitchen food prep discards, leftovers from steam tables; grease; edible produce	90 (1997)	90%, pre- consumer	33%
Frost Valley YMCA, New York	On-site composting	All pre- and post-consumer food scraps and leftovers	80 (1997)	100%	53%
Green Workplace Program, Government of Ontario	Off-site composting; on-site composting	Pre- and post-consumer discards from 27 government restaurants and cafeterias	1,650 (FY96)	70%	60-80%
Larry's Markets, Washington	Off-site composting; rendering; donations	Produce and floral trimmings and spoils, waxed cardboard; meat and fish trimmings; canned goods	870 (1995, est.)	90%	64%
Middlebury College, Vermont	On-site composting	Kitchen food prep discards and post- consumer leftovers from cafeterias and snack bars, waxed corrugated cardboard	288 (1996)	75%	64%
New York State Department of Correctional Facilities	On-site composting at 30 facilities; off-site composting at 17 facilities	Kitchen food prep discards, post- consumer leftovers including chicken bones; some sites accept paper towels and mixed cardboard	6,200 (FY97)	90%	80%
San Francisco Produce Recycling Program, California	Donations; animal feed; off-site composting	Edible, non-salable produce; inedible produce; spoiled produce and trimmings	1,500 (June 1996 - August 1997)	Greater than 50% from participating businesses	NA
Shop Rite Supermarkets, New Jersey	Off-site composting; rendering	Floral and produce trimmings and spoils, out-of-date bakery items, old seafood, solied paper products, food splils, out-of-date dairy and deli products, waved corrugated cardboard; meat products	3,000 (1997)	80%	90%
University of Massachusetts, Amherst**	On-site composting	Kitchen food prep scraps, pre- consumer leftovers, post-consumer discards	250 (September 1996 – August 1997)	50%	48%







## US EPA Food Recovery Hierarchy

## **Food Recovery Hierarchy**

www.epa.gov/foodscraps

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







# What about local? Scale? Diversity?



### Hierarchy to Reduce Food Waste and Grow Community









### **Source Reduction**

Prevention. Do not generate food waste in the first place! Reduce portions, buy what you need, and organize your fridge for optimal food usage.





#### **Edible Food Rescue**

Feed hungry people. Divert food not suitable for people to animals such as backyard chickens or to local farmers' livestock.





#### Home Composting

Composting in backyards or in homes. Avoid collection costs!





#### Small-Scale, Decentralized

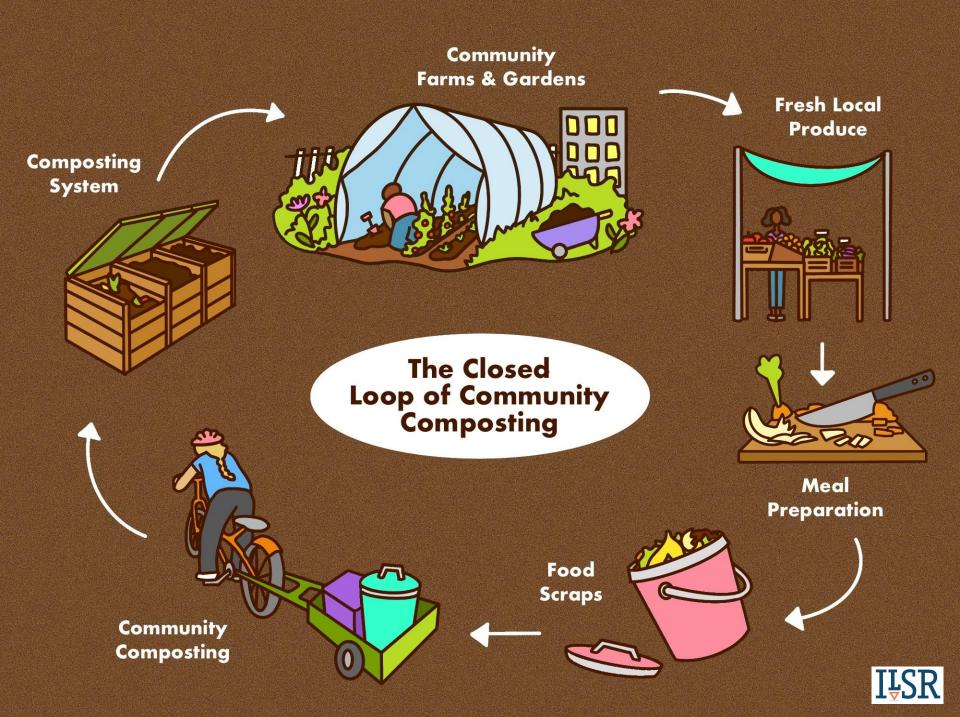
Onsite composting or anaerobic digestion, and community composters can accept material from off-site or simply process their own material.



# What is community composting?



**COMMUNITY COMPOSTING** keeps the process and product as local as possible while engaging the community through participation and education



# Why community composting?

- Provides composting capacity when none exists and is cheaper, quicker, and more in line with community values than large and industrial composting facilities.
- **Engages and educates communities** in composting and zero waste practices.
- Increases demand for and interest in composting.
- Enhances local soils and local food production.
- **Supports farmers** (urban and rural).
- Empowers and strengthens communities by bringing people together and providing useful skills and jobs training.
- Often serves overlooked/under-resourced communities.



# Closing the Loop Locally! Enhancing local soils to grow local food



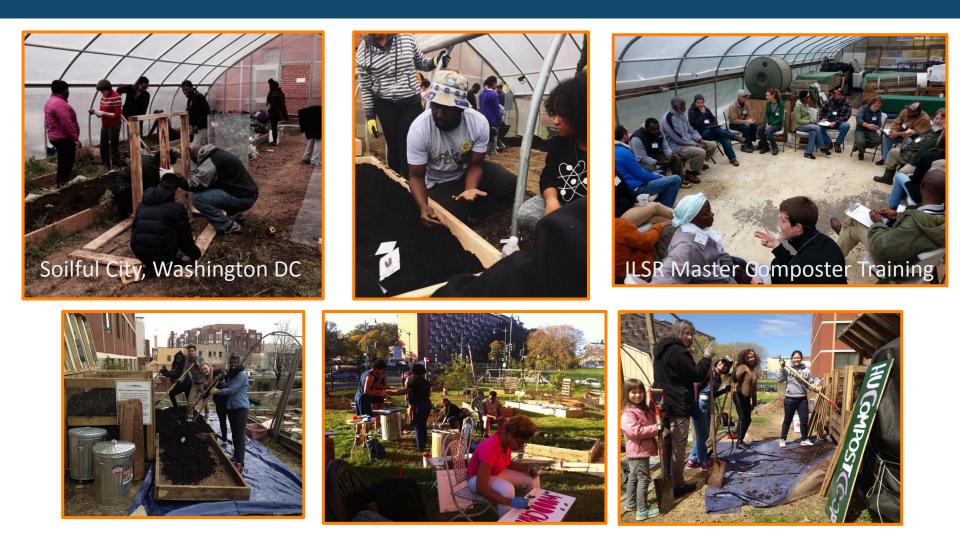
ECO City Farms & Filbert Street Garden, MD







# **Community Engagement**



Howard Univ. community garden, Washington, DC







# **Community Engagement**

CoFood Vancouver Collaborative Garden, cofoodvancouver.com



HOME / ABOUT YOU / EVENTS / PROJECTS / STORIES

We're building a community with shared goals







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## **Community Skill Building & Job Readiness**

PPR-PCPHL Community Compost Program City of Philadelphia Parks & Rec partnership with PowerCorpsPHL Urban Forestry







# **Engaging Underserved Communities & Populations**







# Youth Engagement

Baltimore Compost Collective, Filbert Street Community Garden, Baltimore





www.BaltimoreCompostCollective.org



















# Harnessing the power of volunteerism

Compost bin build – Eagle Scout Project, Montgomery Co., MD





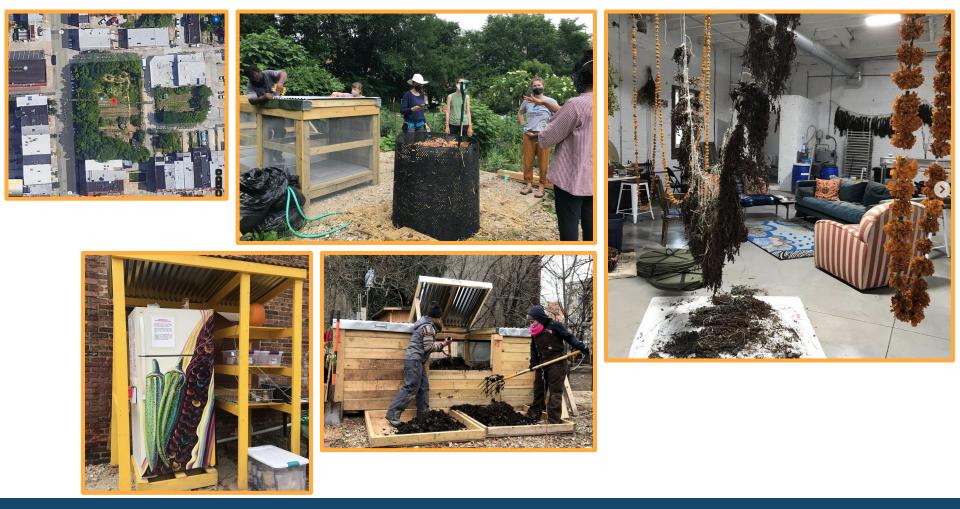








# Hidden Harvest Community Farm, Baltimore







# **Composting for Community Map**

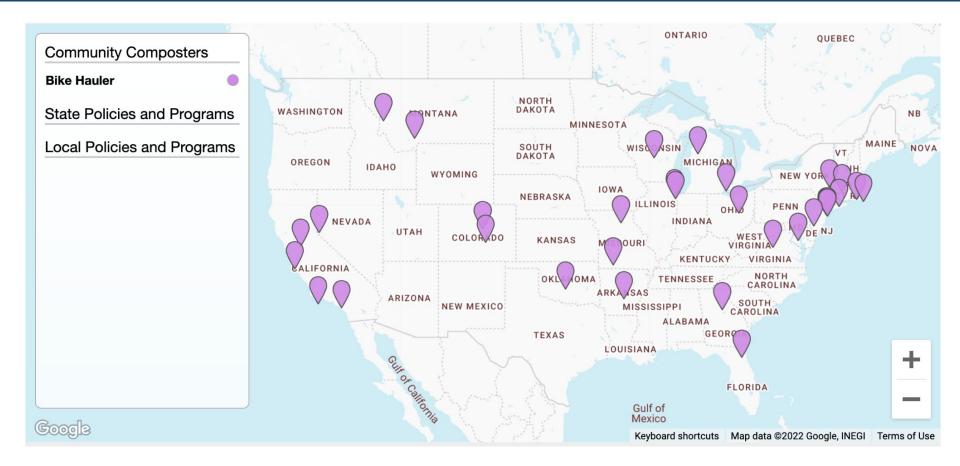








# **Bike Haulers**







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ilsr.org/composting/map/

# Urban Farms, Community Gardens, Cooperatives





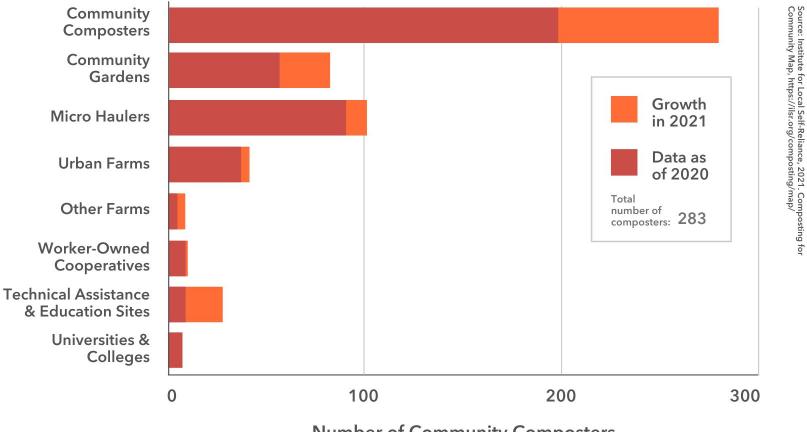




ilsr.org/composting/map/

#### C4C Map 2021 Snapshot

## **Community Composter Types**



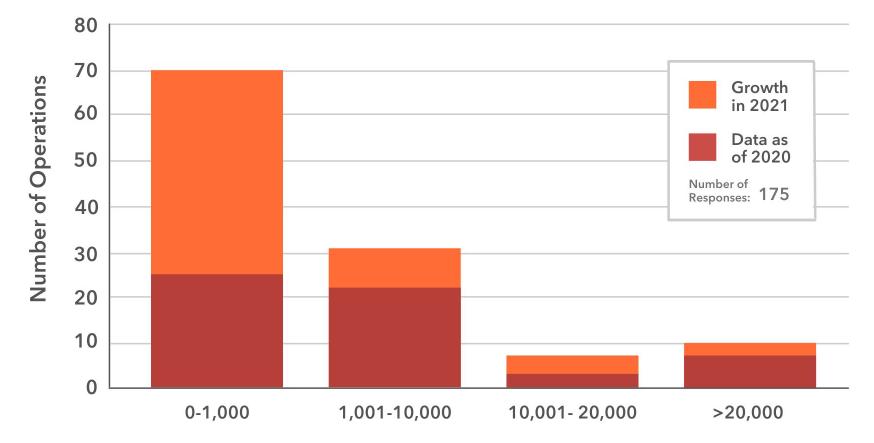
Number of Community Composters





#### **CCC Members** 2021 Snapshot

### **Amount of Food Scraps Handled**



**Quantity of Food Scraps Handled (Lbs/Week)** 

#### **CCC = Community Composter Coalition**

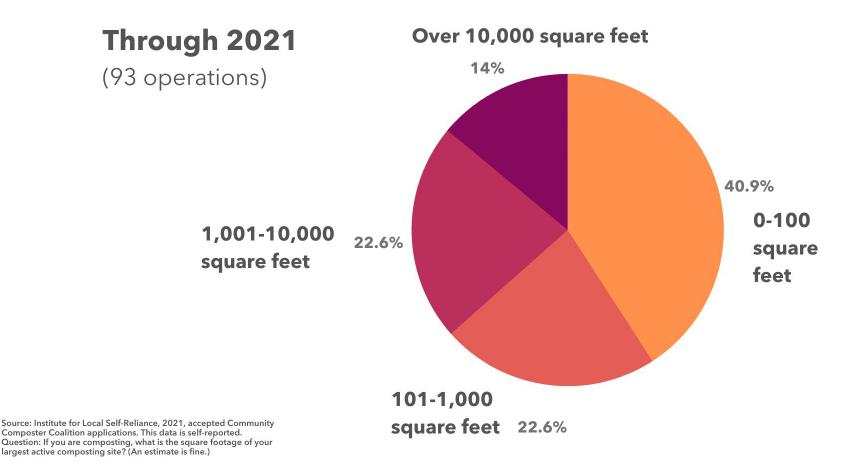




https://ilsr.org/composting/community-composter-coalition/

#### **CCC Members** 2021 Snapshot

#### Area of Active Composting Site (portion of sites with different square footage)









### Peels & Wheels - New Haven, CT

Pedal powered collection service.

Neighborhood-scale operation that composts wasted food from households, schools, and small businesses.

Composts materials at its Phoenix Press Farm and other farms and gardens – created in partnership with New Haven Farms.

Provides training & education, and zero waste events.









### Park City Compost Initiative - Bridgeport, CT

Started as a neighborhood composting effort to reduce incinerator pollution.

Expanding from community garden site and pilot level to new property with larger capacity

Building bins and teaching high school students how to compost.









## Groundwork RI / Harvest Cycle Compost - RI

Harvest Cycle uses an electric assist cargo bike to collect food scraps from residences, restaurants, and institutions.

Composts for urban growers in the community.

Involves Groundwork's youth and adult employment programs in collection, processing, and food growing operations.









### **Bootstrap Compost** - MA & RI

For-profit social enterprise

Education is core element of mission

Founding value: "give back to community what we take from the community"

Through partnership with nonprofit Triangle, Inc., put people with disabilities to work in its warehouse



Image source: https://www.instagram.com/bootstrapcompost/ and https://www.instagram.com/wrightlockefarm/







### **CERO Cooperative** - Dorchester, MA

A bilingual, multicultural, worker-owned cooperative

Provides commercial organics collection services to businesses in metro Boston

Contributes to local environmental justice and zero waste efforts

Image sources: Instagram @cero.coop, https://www.cero.coop/









### Truly Living Well Center for Natural Urban Agriculture - Atlanta

Urban farm committed to bringing good food, good health and well-being to Atlanta's urban community.

Mission: Feeding people right where they live, create a welcoming space where people can gather and find harmony with the earth.







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### The Peoples' Compost Initiative - Detroit

Partnership between FoodPLUS Detroit, Georgia Street Urban Farm, and Wayne State University's Office of Campus Sustainability.

WSU Compost Warriors collect food scraps from local restaurants, WSU Ground Services collects yard waste. This material is brought to Georgia Street Urban Farm to be composted, managed by FoodPLUS Detroit.

These partners host regular workshops for students & community.



Image sources: Renee Wallace/FoodPLUS Detroit, Georgia Street Community Farm http://www.georgiastreetcc.com/, Wayne State University online newsletter Today@Wayne







## **Compost Queens** - San Antonio, TX

A residential and small scale commercial food waste pick-up & composting service

Works with local community gardens and urban farms

Offers workshops & classes

### Woman-owned business

Image sources: Instagram @compostqueens, https://www.compostqueenstx.com









*Late & Betsy* The Compost Queens

The Compost Queens Put Waste to Work

San Antonio mom and daughter turn food scraps into soil



Coffee chaff, dried banana peels, chicken bond and molding leftovers are finding new life tha to the mother-daughter duo behind Compost Queens.

Opened in 2017, the business that's run by Bet Gruy and daughter Kate Jaceldo works with an residents and businesses to turn food waste in organic matter that can enrich soil at farms an urban gardens.

A longtime gardener, Gruy came up with the i after seeing a documentary about a compostir business in Brocklyn. She shared har thought





## Schmelly's Dirt Farm - New Orleans, LA

Commercial compost collection & processing

Community outreach & compost education

Donate compost and mulch to community gardens and farms

Woman-owned

Image sources: Instagram @schmellys https://www.schmellys.com/









# **BK ROT** - Brooklyn, NYC

NYC's first bike powered food waste hauling and composting service

Drop-off services at community gardens

Youth-run & justice-oriented: provides jobs and year-round professional development for local young people of color

Image sources: Instagram @bk\_rot









### Community Compost Co./Hudson Soil Co. - New Paltz, NY

Composter/soil product company in Hudson Valley region

Committed to educational outreach about soil and composting

Woman-owned business

Image sources: Instagram @communitycompostco, https://www.community compostco.com/









## Compost Crew - Rockville, MD

Curbside collection in DC, MD & VA

Small-scale composting site on a local organic farm

## Committed to a closed-loop system

Image sources: Instagram @\_compostcrew https://compostcrew.com/











ECO City Farms, Bladensburg, MD





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ECO City Farms, Bladensburg, MD





# **Peer Learning Community (PLC)**

### In-vessel ASP **Systems**





A Peer Learning Community Event led by Domingo Medina

**Creative Solutions for Community Composting:** On a Low-to-No Budget





A Peer Learning Community Event led by Michael Bradlee

### The Johnson-Su **Bioreactor**



A Peer Learning Community Event led by Marie Hopkins

#### For members of the Community Composter Coalition

https://ilsr.org/composting/community-composter-coalition/







Neighborhood Soil Rebuilders Composter Training Program

**Composting Initiative** 

Neighborhood Soil Rebuilders Institute for Local Self-Reliance ILSTITUTE FOR

Local Self-Reliance

COMPOSTER TRAINING PROGRAM

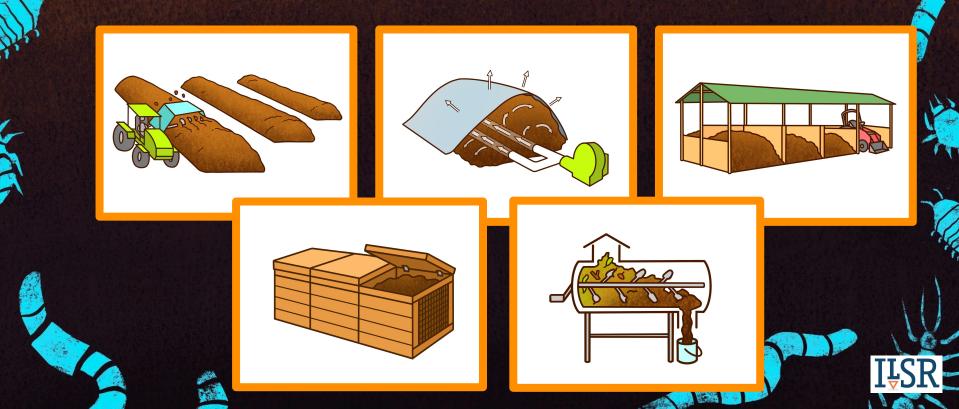
- 1. The What & Why of Composting
- 2. Composting Systems & the Role of Community Composting
- 3. Composting Fundamentals & Recipe Development
- 4. Building a Compost Pile

- 5. Managing the Composting Process
- 6. Site Design & Management
- 7. Getting Started & Engaging the Community

### 1. The What & Why of Composting



# The What & Why of Composting Composting Systems & the Role of Community Composting



1. The What & Why of Composting

- 2. Composting Systems & the Role of Community Composting
- 3. Composting Fundamentals & Recipe Development

## GREENS

Fresh materials that are relatively high in nitrogen AIR

Like us, microbes require air to "breathe."

### **BROWNS**

Materials that are relatively high in carbon

## WATER

Microbes live in a water layer around organic materials



### GENERAL GUIDELINE

2-3 parts BROWNS to 1 part GREENS (by volume)







- 1. The What & Why of Composting
- 2. Composting Systems & the Role of Community Composting
- **3. Composting Fundamentals & Recipe Development**
- 4. Building a Compost Pile

# **ACCEPTABLE MATERIALS**





- 1. The What & Why of Composting
- 2. Composting Systems & the Role of Community Composting
- **3. Composting Fundamentals & Recipe Development**
- 4. Building a Compost Pile

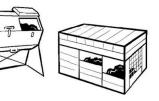
5. Managing the Composting Process

### GETTING STARTED



Choose system (open or closed, DIY or brand, batch or

continuous flow)



2

Locate bins or system (good drainage; convenient access, near water source; room to move around)



Set up storage for browns (carbon source or bulking materials)



Have tools accessible (pitch fork, bucket, temperature probe, scale)





**Post instructions** for participants

STEP	1	=°
STEP		=
STEP	3	$\equiv$



Build a pile (either layer browns and greens, or add greens to a big pile of browns)





Aerate and mix as needed (e.g., aim for weekly for first few weeks, or based on temperature or odor)





Check and adjust moisture as needed





After 8 to 12 weeks, harvest finished compost





Screen

Store finished

compost





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# rurning

Source: @RedHookCompost



- 1. The What & Why of Composting
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- 4. Building a Compost Pile

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- 5. Managing the Composting Process
- 6. Site Design & Management



Source: L. Bilsens Brolis, B. Platt, Community Composting Done Right: A Guide to Best Management Practices, Institute for Local Self-Reliance, 2019. (www.ilsr.org/composting-bmp-guide).



# How will material be collected or received?



Real Food Farm, Baltimore

Photos: ILSR (top left and right), Community Compost Co. (right bottom)



Community Compost Co., NY



Red Hook Community Farm, NYC



No physical site or drop offs

- One drop point that you pop-up or manage, where people bring scraps
- Multiple drop points
- Working with a community garden: you accept drop offs
- Working with a community garden: you make compost
- Working with a community garden: other people make the compost
  - Cooperate with other sites – such as farms, commercial compost sites – where you drop off organics that you have gathered from others

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## Greenbelt (MD) - Zero Waste Circle Volunteer-based collective, 800 lbs/week

THE HOTS – all-volunteer community of ~60 families manage the 3-bin system

THE WIGGLERS – another volunteer group manages the vermicomposting system at the New Deal Café



https://www.greenbeltmd.gov/government/departments-con-t/public-work s/trash-recycling/community-compost-program











Greenbelt, Maryland Dept. of Public Works built the tool storage bin and the concrete pad.

Photos: ILSR; Greenbelt Public Works website (bottom right photo)



# **How to Enroll**



About ILSR\* Press\* Initiatives\* Podcasts\* Reports Get Updates

Building local power to fight corporate control.



ST.



#### Community Composting 101 Online Certificate Course

#### COURSE DESCRIPTION

This course developed by ILSR under its **Neighborhood Soil Rebuilders Composter Training Program** provides an overview of the importance of and science behind composting, and recommended best practices for implementing community composting programs.

Please note: the focus of this course is hot or thermophilic composting, not vermicomposting (composting with worms). However, the information on the benefits of composting and background on community composting will be relevant regardless of the composting system being used.

This course includes an introduction and seven video-based training modules, plus supplemental resources and a glossary of relevant terminology. The training modules typically run 25 to 35 minutes each and total 3.5 hours. These modules include:

#### COMPOSTING HOME PAGE

Composting Resources

\* indicates required

GET COMPOSTING UPDATES

Email Address \*

#### ilsr.org/community-composting-101-certificate-course



# Hidden Harvest's LOCAL COMMUNITY COMPOSTING SITE

### DROP OFF YOUR FOOD SCRAPS FOR COMPOSTING!

### Saturdays 11:30 – 12pm

For more info, visit → hiddenharvest.wordpress.com Questions? Contact → hiddenharvestcommunitycompost@gmail.com







# Gler Lever Farn's COMPOSTING SITE

## **TURNING FOD SCRAPS INTO SOIL!**







Developed by the Institute for Local Self-Reliance

# FOOD SCRAP DROP-OFF INSTRUCTIONS

UNLOCK the drop-off bin and tool station 2 RECORD weight of container scraps (minus container weight) in the log

3 ADD your food scraps to the drop-off bin

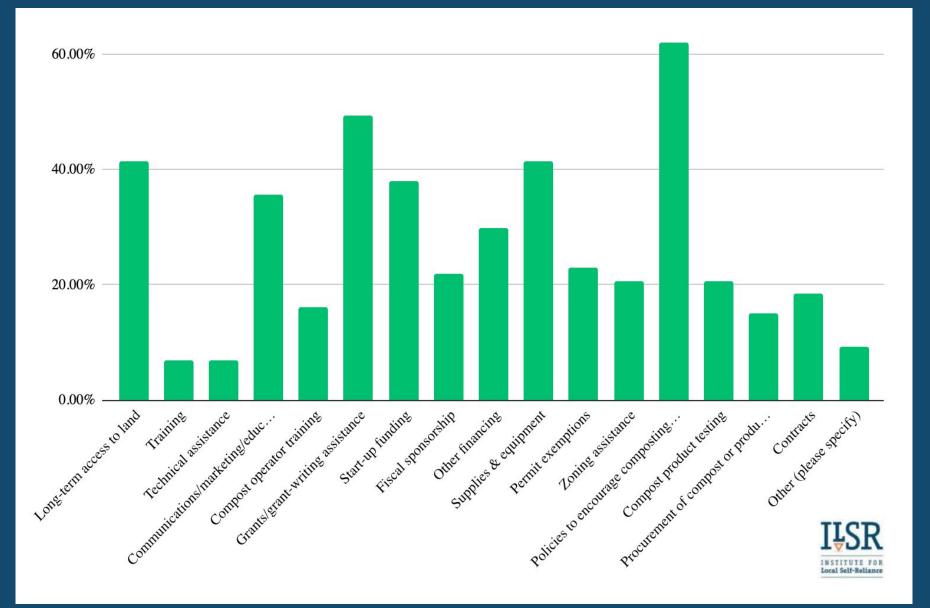
all food scraps with a 4 inch layer of BROWNS



CLOSE and LOCK all bins!

Developed by the Institute for Local Self-Reliance

# What kind of public and/or private sector assistance would be most useful for your operation?



## **Advocating for Government Support**

Part 1: Spotlight on New York City Contracts

May 4

### Part 2: Food Scrap Collectors & Composters with Municipal Contracts

June 8

### Part 3: Cities and Counties with Public-Private Partnerships June 23

### Part 4: A Menu of Options – Zoning, Grants, and Contracts

October 27



ilsr.org/govt-support-for-community-composting-series





# Learn from single-stream recycling & from trends in other states

- Source separate!
- Don't privilege dominant corporations or large industrial sites
- Be wary of depackagers
- Avoid contamination



Stop Privileging Large Industrial Sites Over Local Composters — Episode 125 of Building Local Power







## What can you do to help?



- Foster partnerships between community composters and government/broader composting sector
- Offer small-sized equipment and systems
- Support diversified infrastructure
- Provide technical assistance and tools for locally-based systems
- Support reasonable policies & regs
- Procure finished compost
- Support training & well-operated sites
- Contract with micro haulers and processors (urban & rural farmers too)
- Provide long-term access to land
- Fund community-based programs





## What can you do to help?



### Policy Recommendations for Municipal Governments when Partnering with Community-based organizations

- Ensure that the needs of environmental justice communities are made central in drafting composting policy
- Preference composting strategies that are decentralized, local, and community-based
- Consider supporting the existing efforts of community-based composting initiatives rather than centralized municipal operations or outsourcing to large corporations
- Adequately compensate community-based organizations don't assume they will do this work purely out of love
- Draft MOUs with CBOs when partnering on grants to ensure they do not get cut out of programs after funding has been received
- Provide materials support timely woodchip delivery

CBO = community-based organization

Scott Kellog, The Radix Ecological Sustainability Center, Albany, New York







# Thank you!

**Brenda Platt** 

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