Image Credit: Jesse Kerns/Town of Bethlehem

Syracuse University College of Engineering & Computer Science

> Center for Sustainable Community Solutions

The State of Sustainable Organics Management in New York State

Presented by: Jesse Kerns

New York State

- 141,300 square kilometers (54,600 square miles)
- More than 19.5 million residents
- A GDP of more than \$1.5 trillion
- 62 counties, 60+ cities, and 930+ towns
- The Adirondack Park coves one-fifth of the State
- NYC contains roughly half of the State's residents

Image Credit: Jesse Kerns/OCRRA

Food and Organic Waste in NYS

- The U.S. wastes 33% of its food¹
- 48% of food waste occurs in residential homes¹
- 35% is produce and 20% is prepared foods¹
- 17 percent (3 million tons) of MSW is food scraps²
- 7 percent (1.3 million tons) of MSW is yard trimmings²

¹ ReFED. (2022). Insights Engine.
 ² NYSDEC. (2023). NYS Solid Waste Management Plan.

The New York State Food Donation and Food Scraps Recycling Law

- Passed in 2019 and enacted in January 2022
- Generators of 2 tons of food scraps per week
- Donate edible food to local hunger relief organizations
- Recycle food scraps if within 25 miles of a facility
- K-12 schools and hospitals are exempt

Pending Amendment to the Law

- An amendment passed the NYS Senate and Assembly during the 2024 legislative session
- Entities that generate a half-ton or more of food scraps per week will be subject to the law by 2028
- Expands distance to recyclers from 25 to 50 miles
 Governor Hochul has not yet signed the bill

Impacts of the Law

- 874 large generators were identified by NYSDEC, 284 (one-third) are required to recycle
- 20,147 tons of food was donated in 2022
- 266,468 tons of food scraps were recycled in 2022
- More organics recycling facilities are being planned

ENHANCED SCREENED COMPOST

Image Credit: Jesse Kerns/Town of Bethlehem

Image Credit: Alex Warshal/OFRN

Food Donation

- Large generators are required to donate food even if they receive a recycling waiver
- NYS has 10 regional food banks, each with hundreds of local partners (e.g., food pantries)
- Feeding NYS acquired 4.2 million pounds of food donations in 2023
- Food rescue networks are being established to help fill gaps of the food banking system

L DROP-OFF SITE

FOOD AND COMPOSTABLE ITEMS ONLY
 Compostable bags are accepted (available for purchase at Recycling Center office)
 NO plastic bags, packaging, stickers, rubber bands or twist ties

ACCEPTED ITEMS Its and Vegetables were acknew, each and then at and Poultry (bones ok) - Chips and Snacks - Nuts and Seeds - Leftover and Spoiled Food - Chips and Snacks - Leftover and Spoiled Food Image Credit: Ricky Flores/The Journal News

Food Scraps Collection

- Large waste hauling companies are beginning to offer collection services, primarily for commercial entities
 DSNY in NYC is rolling out curbside collection across its five boroughs (starting on Sunday)
 Independently owned micro-haulers offer residential
 - collection in some upstate NY communities
- Food scraps drop-off programs are being initiated by communities that lack hauling services

Image Credit: Jesse Kerns/OCRRA

Large-Scale Composting Sites

- 66 permitted and 154 registered sites, including yard debris and biosolids sites
- Sited near major cities including Buffalo, Rochester, Syracuse, Albany, and NYC
- Turned windrow and aerated-static pile systems
- Initial capital costs, siting, negative public opinion, and financial sustainability are top challenges

Anaerobic Digestion (AD)

- 4 permitted and 1 registered facilities, including operations that only accept food waste
- Packaged and liquid food waste (e.g., acid whey)
- Some communities are retrofitting water resource recovery facilities (WRRFs) to co-digest food waste
- Most of NYC's food waste is co-digested at the Newtown Creek wastewater treatment plant
- Per the law, a proportional amount of the digestate must be beneficially used

Community Composting

- DSNY established the NYC Compost Project in 1993
 Collectively diverted 8.3 million pounds of food scraps and organic materials annually
- Food scraps collected via bicycles and drop-off sites, and processed at community sites across the city
- Educates and employs youth and uses the finished compost to rebuild city soils

Residential Education

- Cornell Cooperative Extension's Master Composters Program is a "train-the-trainers" initiative with 10 weeks of in-depth lessons and hands-on experience NYS Compost Awareness Week activities including local media campaigns, how-to workshops, movie screenings, bin sales, site tours, compost giveaways Recycling coordinators conduct outreach and
 - education and provide how-to resources

Image Credit: The Javits Center

Compost Use and Markets

- Compost used for agriculture, construction, erosion control, top dressing, residential gardens/landscaping
- Companies making soil blends for green roof media, urban agriculture, topdressing applications, etc.
- Natural Resource Conservation Service (NRCS) provides financial assistance to farmers for compost
- More robust markets are needed

NYSAR3's Organics Council

- More than 120 members statewide
- Monthly virtual meetings and an email listserv
- Programmatic updates, funding opportunities, resource sharing, and peer-to-peer support
- Free to participate

Image Credit: MeiLin Luzadus/OCRRA

Annual NYS Organics Summit

- The first summit was held in 2015 (10 years)
- Attendance has grown to more than 220
- Two full days of sessions and a half-day of tours
- Topics include composting, AD, food scraps collection, compostable products, contamination, education, etc.
- Fundraising mechanism for NYSAR3 and sustainable organics initiatives and support

Compost Site Operators Training

- Free one-day trainings, five held across the state
- Funded by the NYSDEC, coordinated by CET, and led by James McSweeney
- Half-day lecture, half-day field exercises
- CREF will conduct a five-day Compost Operations Training Course (COTC) in NYS later in 2025

Image Credit: Jesse Kerns/Town of Bethlehem.

Assistance for Community Leaders

- No-cost TA provided by Syracuse University's CSCS, Cornell University's CWMI, RIT's NYSP2I, and CET
- In-person workshops, webinars, guidance documents, interactive tools, one-on-one support
 Develop local organics management plans, pilot initiatives, and scaling-up pilots to ongoing programs



Federal and State Funding

- U.S. Department of Agriculture (USDA) and Environmental Protection Agency grants (EPA)
 NYSDEC through the State's Environmental Protection Fund (EPF)
 Primarily available to municipal and nonprofit entities
 - (not the private sector)
- For staff time, feasibility studies, planning, equipment, vehicles, supplies, education and outreach

Climate Leadership and Community Protection Act (CLCPA)

- Reduce GHG emissions by 40% by 2030 and 85% by 2050 (from 1990 levels)
- Sector strategies focus on transportation, buildings, electricity, industry, agriculture, waste, and more
- Organic waste reduction and recycling strategies are detailed in the 2022 scoping plan

NYSDEC 10-Year Solid Waste Management Plan - Organics Goals

- Prioritize commercial, industrial, and institutional sectors
- Develop the organics recycling industry
- Empower and educate residents
- Expand markets for products made from organics
- Engage farmers and the agricultural community



Center for Sustainable Community Solutions

Questions?

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Image Credit: Jesse Kerns/Town of Bethlehem