	10:00-11:30 AM	1:00-2:30 PM	3:00-4:00/4:30 PM
Monday		State of the State Keynote: David Montgomery	3:00-4:00PM <u>Virtual Tour: Vanguard</u> <u>Renewables' New Anaerobic Co-digester</u>
Tuesday	Composting Success	Compostable Products	3:00-4:30PM Family Complexes
			3:00-4:00PM Virtual Tour: WSWMD
Wednesday	On-farm Composting	<u>CAHR / P</u>	3:00-4:00PM Improved Fertility
			3:00-4:00PM Virtual Tour: CSWD GMC
Thursday	Soil Builders	CSWD Diversion Options	3:00-4:00PM <u>Zoning</u>
			3:00-4:00PM <u>Virtual Tour: Richearth Inst</u>
Friday	A New Generation	Haulers' Roundtable	3:00-4:00PM <u>Virtual Tour: Black Dirt</u> <u>Farm</u>

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VERMONT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION ECO AmeriCorps





# **Program Details**

## Monday May 3rd

1:00-1:30 PM

- Opening Remarks, Peter Walke, Commissioner, VT Department of Environmental Conservation
- State of the State, Josh Kelly, Materials Management Section Chief, ANR, Solid Waste Program

#### 1:30-2:30 PM Keynote: David Montgomery

3:00-4:00: Virtual Tour: Vanguard Renewables' new Anaerobic Co-Digester at the Goodrich Family Farm

Join us for a virtual tour of Vanguard Renewables' new anaerobic co-digester in Salisbury. The facility began operating in late 2020 and recycles commercial food waste and manure from a milking herd of 900+ to create tons of environmental, social, and community benefits. Unlike grid-connected AD's, this project represents critical technological advancements and several firsts for Vermont, including a phosphorus removal system and an end product of Renewable Natural Gas (RNG). Vanguard Renewables' process also creates a low-carbon fertilizer and natural animal bedding for the farm, as well as no-cost energy from a combined heat-and-power generator (CHP) and local odor controls.

The virtual tour will be followed by Q&A with **Billy Connelly**, Vermont Organics Market Manager, and Lance Butler, Facilities Manager for the Goodrich Farm Digester.

## **Tuesday May 4th**

10:00-11:30 AM: Food Scrap Composting Success: Stories From the Field

Composting systems come in all shapes and sizes. This panel represents different scales of commercial facilities, as well as on-farm composting. Join us to get an overview of these different types of operations, including permit size; accepted materials; recipe development and sourcing; hauler relations; customer training; marketing; and more. Through discussion you'll learn about advantages or disadvantages to advancing to the next permit level; systems and process improvements; relationship building; as well as the challenges and opportunities that come with different scale and system choices.

- Athena Lee Bradley, Organics Consultant, Small scale composting
- Trevor Mance, Casella Waste Systems, Inc., Medium permitted facility
- Eric Paris, Tamarlane Farm, On-farm composting
- Bob Spencer, Windham Solid Waste Management District, Small permitted facility
- Kim Stacey, Chittenden Solid Waste District, Large permitted facility

1:00-2:30 PM: Compostables, Disposables, and Durables – A look at food service options in Vermont, the opportunities they offer and the challenges they present

Vermont, its people and its institutions tend to take a progressive approach towards solid waste management and try to make decisions based with minimal environmental impact wherever possible. Balancing between environmental benefit, function, practicality, convenience, and cost is a challenge at best.

- **Dan Goossen**, CSWD Green Mountain Compost, *Compostable Products in Vermont exploring the conflict between increased use and limited acceptance statewide*
- Marissa Watson, UVM Dining, Sodexo, Durable food service ware on a college campus the good, bad and ugly of implementing the EcoWare program at UVM
- Other panelists TBD

3:00-4:30: Food Scrap Diversion Strategies for Multi-Family Complexes

Multi-family complexes present unique challenges for implementing and sustaining food scrap diversion programs. Many have off-site managers; trash, recycling, and food scrap collection services are often communal, with little oversight; space to expand collection bins to accommodate food scrap collection is often limited; outreach may require special tools for training; many are renter-occupied with higher occupant turnover; and, like other residential areas, issues with bears, raccoons, and squirrels are a concern. This panel will review the Vermont Rental Housing Code and compliance for implementation of Act 148 at multi-family complexes; discuss strategies for collection containers (such as wildlife-resistant containers); working with haulers; program implementation strategies; outreach and education strategies including tools for landlords/property managers, condominium and renter associations, and tenants, such as enhanced resident engagement through community meetings and door-to-door outreach, signage, brochures, etc.; technical assistance tactics for implementation, including tips on how to apply collection charges, dealing with odor, flies, and wildlife issues, low participation, and, more.

- John Fay, Windham Solid Waste Management District
- Cassandra Hemenway, Central Vermont Solid Waste Management District
- Rhonda Mace, Chittenden Solid Waste District
- Emma Stuhl, VT ANR Solid Waste Program

3:00-4:00: Virtual Tour: Windham Solid Waste Management Compost Facility

Windham Solid Waste Management District's food scrap composting facility has grown to the 2nd largest in VT. The tour will show the processing of Brattleboro's residential curbside organics, as well as commercial and industrial organics co-collected with non-recyclable paper and cardboard. The facility has met its annual "small food waste composting facility" permit capacity limit of 2,000 cubic yards, and the regulatory requirements for moving to a larger permit capacity will be discussed. Marketing of "Brattlegrow" compost will be described, including manufacturing of topsoil.

The virtual tour will be followed by Q&A with District Manager, **Bob Spencer**.

### Wednesday May 5th

10:00-11:30 AM: Connecting Farms to Communities to Close the Nutrient Loop

In 2019 the Farm to Plate Food Cycle Coalition started an On-Farm Composting Project. We will present the new On-Farm Composting Booklet outlining regulations around composting and laying out how communities can connect to close the nutrient loop. The booklet provides a matrix to help readers understand the regulatory thresholds aligned with compost volumes and methods of composting available. Three case studies in Vermont are highlighted to show different adaptations of closing the nutrient loop at a community scale. Speakers will cover the booklet contents and technical assistance programs available to farmers to establish composting operations. One participating farmer highlighted in our case studies will speak of their experience. We'll invite discussion and questions from participants to help inform the next phase of our work.

- Cat Buxton, Grow More, Waste Less
- Chuck Wooster, Sunrise Farm
- Other panelists TBD

1:00-2:30 PM: Composting and Heat Recovery for the VT Phosphorus Innovation Challenge

Agrilab Technologies Inc. (AGT) is one of the teams funded through the VT Phosphorus Innovation Challenge. The larger effort seeks to reduce P loading to Lake Champlain and other VT waters through new practices. AGT is setting up a network of on-farm composting and P processing sites to stabilize and add value to P concentrates and other biomass. End products are intended to be better distributed and applied within farm operations, within watersheds and for export. Use of compost aeration and heat recovery (CAHR) units aids with efficient compost operations and drying/stabilization of finished products

• Brian Jerose, Agrilab Technologies Inc.

3:00-4:00: Improved Compost Fertility Characteristics: Thermophilic and Vermicompost Blends

Thermophilic (traditional) compost and vermicompost are two very different composting systems promoting different microbial communities. Mature thermophilic compost is generally slow to release nutrients and is inexpensive. In contrast vermicompost already has high levels of available nutrients and is about 10 times the price of thermophilic compost. The research presented is exploring potential synergistic nutrient release effects when the two compost types are mixed.

- Josef Görres, Plant & Soil Science Department, University of Vermont
- Korkmaz Bellitürk, Department of Soil Science and Plant Nutrition, Namık Kemal University (Tekirdağ/Turkey)

3:00-4:00: Virtual Tour: Chittenden Solid Waste District's Organic Diversion Facility

Located within Vermont's most densely populated area, Chittenden Solid Waste District's Organic Diversion Facility (formerly known as Green Mountain Compost) has been ramping up to meet the changing needs of organics diversion. Come along for a virtual ride as we explore the many recent upgrades and process changes along with some of the challenges that increased organics diversion brings with it.

The virtual tour will be followed by Q&A with General Manager Dan Goossen.

## Thursday May 6th

10:00-11:30 AM: Soil Builders: Compost-Based Best Management Practices for Erosion Prevention & Sediment Control

Building on a March 23rd CAV Soil Builders webinar with Chuck Duprey (Naturcycle) and Brian Jerose (Agrilab Technologies Inc.), we take a deeper dive into compost-based Best Management Practices (BMP) for erosion prevention and sediment control. This session will provide a breif overview of the practices, and then get deeper into application of the BMPS with an extended Q&A with an expert panel

- Chuck Duprey, Naturcycle
- Mike Carignan, Agresource, Inc.
- Other panelists TBD

1:00-2:30 PM: Organics Diversion Options in Chittenden County

CSWD's Rhonda Mace will start this panel off with an overview of the food scrap management landscape in Chittenden County. She'll touch on the myriad options for how Chittenden County residents and businesses can comply with the food scrap diversion requirements of VT's Universal Recycling Law (Act 148), including: food recovery/waste prevention, onsite management (garbage disposals, grinders, dehydrators, backyard and community-scale composting and digesting), feeding animals, drop-off options, curbside pickup, and - importantly where those organics may end up depending on the option chosen.

Rhonda will point attendees to where they can find more information about each option and will give an overview of current licensed food scrap haulers in Chittenden County. Michele Morris will round out the session by moderating a Q&A session for which all Chittenden County food scrap haulers and facility operators will be invited to attend to answer questions from attendees.

- Rhonda Mace, Chittenden Solid Waste District
- Michele Morris, Chittenden Solid Waste District

#### 3:00-4:00: Zoning: The Compost Entrepreneurs Challenge

The US Composting Council (USCC) is releasing a Model Zoning Template this year which is designed for adoption by cities, counties and towns to implement in their zoning codes. Compost manufacturers looking to open facilities or expand are often stymied by lack of zoning and this Model Template was formed from a study of the zoning codes that are out in the policy-sphere as best zoning practices for small, large, and on-farm sites, as well as consolidation (collection) sites for community composting.

- Linda Norris-Waldt, US Composting Council
- Marcus Zbinden, Carver County Environmental Services (MN)

3:00-4:00: Virtual Tour: Rich Earth Institute

**Description Coming Soon** 

## Friday May 7th

10:00-11:30 AM: Engaging a New Generation of Organics Managers

In this panel we'll hear about food waste reduction, organics diversion, composting, and soil health education in K-12 classrooms as well as how young professionals are engaging in this work through ECO AmeriCorps positions with Solid Waste Management Entities in Vermont. Join us to learn how a new generation of organics managers are evolving with the Universal Recycling Law, and to hear what they see as the gaps, solutions and opportunities in this growing industry.

- Lexi Chambers, ECO AmeriCorps, Lamoille Regional Solid Waste Management District
- Colin Clarcq, ECO AmeriCorps, Addison County Solid Waste Management District
- Amanda Clement, ECO AmeriCorps, Central Vermont Solid Waste Management District
- Miranda Dalton, Virtual Learning Academy for Champlain Valley School District
- Julia Parker-Dickerson
- Elly Ventura, Lamoille Regional Solid Waste management District

#### 1:00-2:30 PM: Haulers' Roundtable

The Haulers' Roundtable provides a place for organics haulers to get together to trade notes on topics including (but not limited to) equipment or customer relations, and ways to address issues such as contamination. While focused on hauler issues, all are welcome to attend this session!

3:00-4:00: Virtual Tour: Black Dirt Farm

Description coming soon.