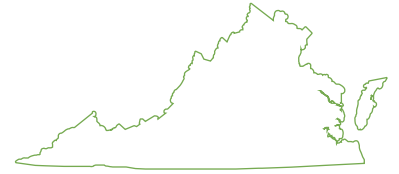


Composting



TOM WITHAM/USDA

Composting is the process of recycling organic materials by combining waste products like leaves, food, wood chips, and manures into piles, rows, or vessels. As these materials break down, they turn into compost which can be added to soil to improve its fertility, promoting healthier crops and reducing the need for chemical fertilizers. Compost also stores carbon and improves water retention in soils, and it reduces methane emissions by keeping organic waste out of landfills.¹

Farmers often compost their own organic waste and may offer services to compost municipal leaves and yard waste. This scale of composting is generally exempt from regulation. However, commercial composting has larger impacts, so it is often regulated by state governments. The U.S. Composting Council tracks legislation and created a Model Compost Rule Template for states to adopt.² To protect public health and safety, local governments often add to state regulations by requiring things like site plan approval, setbacks, and regulations to prevent stormwater runoff, and address neighborhood issues like dust, pests, and odors.

ABOVE: Trent Deans, Veteran Compost D.C. works organic composting operations at the Arcadia Center for Sustainable Food and Agriculture in Virginia.

Virginia Programs Description

Virginia has several programs that address composting. The [Virginia Solid Waste Management Regulations](#) (VSWMR, 9VAC20-81), the [Virginia Pollution Abatement \(VPA\) Permit Regulation](#) (9VAC25-32), and [Sewage Collection and Treatment Regulations](#) (9VAC25-790) all govern composting operations within the Commonwealth.

The VSMR has the most application to agriculture. It applies to acceptance of yard waste, feedstocks, and manures from herbivores that are generated off site so long as they do not pose a nuisance or present a potential threat to human health or the environment. It allows agricultural exemptions so long as operations follow criteria outlined in [9VAC20-81-397](#). VPA Permit Regulations spell out procedures and requirements for permits pursuant to the State Water Control

Law. Administrative Code [9VAC25-790-570](#) applies to the design and operation of conventional sludge composting including buffers, grading, and measures to control odors.

PURPOSE

The purpose of these laws is to establish standards, procedures, and requirements in handling compost and sludge to protect public health, public safety, the environment, and natural resources.

HOW IT WORKS

VSWMR provides requirements for siting, design, construction, operation, maintenance, closure, and post-closure care of solid waste management facilities in the Commonwealth. Composting is allowed on farms as an accessory use so long as certain requirements are met. For example, the composting area must be 300 feet from a property boundary and 1,000 feet from an occupied building.

Local governments in the Commonwealth have limited authority to require organic waste diversion from solid waste streams but can address setbacks, buffers, screening, and so on through zoning and other local ordinances. Several Virginia cities have composting programs to collect food scraps and dispose of them in a sustainable way. Farmers who compost agricultural waste products or work with local governments to compost municipal leaves and other organic matter can use the compost to improve soil fertility or sell it as a soil amendment product, creating an added revenue stream.

CONSIDERATIONS

Composting occurs in many places and at many scales, from backyards to farms to commercial facilities. It has many benefits for soil health, waste reduction, and

reducing carbon and methane emissions, but if not properly managed can have downsides like run-off, odors, and pests—from flies to rodents to larger wildlife like raccoons and even bears.

Local governments can address the pros and cons of composting through zoning and other local ordinances. Zoning (see [Zoning to Support Agricultural Enterprises](#) fact sheet) can be used to allow composting in some districts and restrict it in others. It can address scale by allowing it by right for leaves and farm generated waste but requiring permits for commercial operations. Buffers and setbacks can limit impacts like runoff, odors, and debris on adjoining properties. Other ordinances can be used to set size allowances, limit what types of wastes can be composted and/or to mitigate the impacts of odors and pests.

To Learn More

- › [Virginia Conservation Network: “Composting for Waste Reduction and Soil Health”](#)
- › [Virginia Department of Environmental Quality \(DEQ\): “Report of the Waste Diversion and Recycling Task Force to the Governor and General Assembly of Virginia”](#)
- › [Virginia General Assembly. Senate Bill 1319 to study waste control and recycling.](#)
- › [Office of the Governor: “Executive Order 17 Recognizing the Value of Recycling and Waste Reduction”](#)
- › [U.S. Composting Council: Model Compost Rules Template](#)

NOTES

- 1 U.S. Environmental Protection Agency, “Reducing the Impact of Wasted Food by Feeding the Soil and Composting,” Overviews and Factsheets, August 12, 2015.
- 2 U.S. Composting Council, [“Model Compost Rules Template \(MCRT\) Version 2.0,”](#) accessed March 15, 2023.