

Composting Resources for Farmers

Farms generate several types of organic materials that are suitable for composting, including manure, animal bedding, crop residues, and other plant material. Establishing a composting facility on site at a farm can help farmers turn what otherwise would be a waste into a useful product, which can be sold or reused in the farming process. Farms with adequate space may even be able to supplement their income and improve their composting process by accepting organics such as food scraps from other sites in the community. The resources below will assist farmers in considering and planning a composting facility on the farm.

On-Farm Composting Manuals

A number of good composting manuals are available that are specifically tailored to on-farm facilities. These documents guide farmers through the major considerations in design and operation of a new composting facility for processing of agricultural materials.

- **Rynk, Robert, et al, *On-Farm Composting Handbook*, Plant and Life Sciences Publishing (1992).** This is perhaps the most cited source of composting guidance for farmers, containing specific best management practices in design and operation as well as extensive information on individual feedstocks, marketing, costs, and troubleshooting. The Handbook is available for purchase [here](#). Or, selected portions of the handbook can be viewed online for free at the [Cornell Waste Management Institute Website](#).
- **Natural Resources Conservation Service, *National Engineering Handbook, Part 637 Environmental Engineering, Chapter 2: Composting* (2000).** This detailed technical handbook on composting published by NRCS is available online at the [NRCS Website](#)
- **U.S. Composting Council, *Best Management Practices for Incorporating Food Residuals Into Existing Yard Waste Composting Operations*, Prepared for EPA Region 3 (2009).** Farmers considering augmenting their on-farm composting sites with food scraps generated on or off the farm should review [this guide](#), which explains how to ensure success given the operational challenges particular to food scraps.
- **Clean Washington Center, *Basic On-Farm Composting Manual* (1997).** This manual ([available online here](#)) discusses some of the issues farmers should consider in deciding whether to begin composting and walks through the operational steps to composting, as well as siting issues and some of the equipment that may be needed.
- **Virginia Cooperative Extension, *On-Farm Composting: A Guide to Principles, Planning, and Operations* (2009).** This [guide](#) contains a useful discussion of planning and siting considerations.

Animal Mortality Composting

Farms with animals must plan for mortalities that occur during the ordinary course of business as well as from catastrophic events. Methods of management for animal mortalities attempt to control risks of odors, pathogens, and impacts to water quality. Composting is often an appropriate option for managing dead animals, but the optimal design and procedure for handling dead animals varies somewhat from composting other feedstocks. The University of Maryland Extension has conducted research on mortality composting and published the following fact sheets:

- University of Maryland Cooperative Extension, Fact Sheet 537, [Composting Dead Birds](#).
- University of Maryland Cooperative Extension, Fact Sheet 717. [Composting Animal Mortalities on the Farm](#).

Compost Use on the Farm

Vermont Agency of Natural Resources, Compost Uses for Farmers. [This brochure](#) briefly outlines several uses for compost on the farm.

USDA National Organic Program, Guidance: Compost and Vermicompost in Organic Crop Production (2011). Growers of organic crops should review [this guidance document](#) outlining the requirements and standards for compost use in order to maintain the organic status of the crops. The document contains citations to more detailed standards.

Note: Be sure to consult MDA nutrient management regulations and provisions of your nutrient management plan prior to applying compost at an agricultural operation. For additional information on nutrient management requirements and MDA contact information, please visit [MDA's nutrient management website](#).

Other Tools and Resources

The following additional websites and fact sheets may be useful to farmers in conducting composting on the farm.

- [Northeast Recycling Council Manure Management Education Project](#)
- [Cornell Waste Management Institute, Compost Mixture Calculation Spreadsheets](#)
- [Cornell Waste Management Institute, Co-Composter Spreadsheet](#) (For mixtures of dairy manure and other materials)
- [Cornell Waste Management Institute, C:N Calculator](#)
- [CalRecycle, Comprehensive Compost Odor Response Project Report](#) (Best management practices for addressing odors)
- [Ohio EPA, Odor Management Practices for Composting Facilities](#)

- [NRCS Maryland Conservation Practice Standard, Composting Facility Code 317](#)
- [University of Maryland Cooperative Extension, Composting Horse Manure](#)
- [University of Maryland Cooperative Extension, Horse Manure Management](#)
- [Penn State Cooperative Extension, On-Farm Composting](#)
- [Northeast Recycling Council, Compost Marketing Resources](#)

Contacts for More Assistance

- Find a NRCS local service center: [Local service centers directory](#)
- MDA State Chemist. The [State Chemist website](#) includes the application for registering compost (required if the compost will be sold or offered for sale).
- MDA Nutrient Management Program [website](#)
- University of Maryland Extension [website](#)