



Ten Step Guide to Food Composting

Background

The environmental footprint of Food Services is being more closely recognized as a critical focus in overall sustainability efforts within the hospital. Due to the large amounts of food residuals generated, including preparation areas, the cafeteria, on-site coffee stands and other food service areas, composting offers excellent waste reduction and cost saving opportunities.

Released in January 2009 the Green Guide for Health Care (www.gghc.org), a self-certifying toolkit that steers facilities through greener design, construction and operations, added a Food Services Section that can be used to drive departmental Food Services Sustainability Initiatives.

The Green Guide for Health Care Food Services Section can be used to evaluate local and sustainably-produced food sourcing, purchase foodservice ware, eliminate bottled water, waste reduction, composting and more.

Composting can be used as an educational vehicle to raise awareness about the connection between the facility's environmental mission and its relationship to the surrounding community. For some institutions that use an industrial food disposal system, composting avoids sludge issues at the wastewater treatment plant and added costs of water discharges. Using compost on-site (where possible) can save the grounds department money by reducing their need to buy mulch, fertilizer, and pesticides, since compost improves soils' water retention and supplies some nutrients.

Compost can be used as mulch around shrubs, trees, or flowers, and on paths; as a soil amendment to break up clay-type soils or to add substance and water retention to sandy soils; or as a top-dressing for lawns or indoor plants. It can also be given away at community events or to staff. Compost provides plant nutrients, supports beneficial soil life, reduces soil diseases and promotes control of weeds and soil erosion. Many landscapers use compost instead of chemical fertilizers to provide nutrients to their plants. This practice aligns with onsite eco landscaping initiatives. (See Practice Greenhealth document on Greening Landscapes)

The following foods are compostable: fruits and vegetables, coffee grounds and filters, tea bags, egg shells, breads, cereals, grains and pastas, and, even leftover meats. Other acceptable items include hand towels, paper plates, napkins, paper cups, wax and non-wax cardboard and nonhazardous and noninfectious herbivorous animal lab waste. Don't forget outdoor compostable material including grass cuttings, trimmings from trees, shrub waste and leaves. Noncompostable waste includes metal (twist ties), glass, plastics (gloves, packaging, food service ware, rubber bands), cat, dog or human waste, hazardous or infectious materials, weeds, diseased plants and tree stumps.

To help you get started, Practice Greenhealth recommends the "Ten Steps" shown on the following pages to implement a food composting program at your facility.

Step 1: Measure your Baseline

In order to determine if you create sufficient waste to establish a composting program, identify a baseline for all types and amounts of Food Service-related waste. Use the Practice Greenhealth “Greenhealth Tracker™” software tool or other methodology to measure the amount of food waste generated and the impact of composting. Use of the tool can be coordinated through the Practice Greenhealth Facility Engagement team.

If no tool is in use or you are unable to gather baseline data for all wastes, separate 24 hours of Food Services waste to identify the baseline of the food services department’s residuals generation rate. Weigh the material (use a linen scale or other method) to convert the volume into pounds for tracking volume and associated cost reduction through prevention and diversion through composting.

With this important data, the facility will be able to measure the impact of the food waste composting program and potential for cost savings and diversion of waste to landfills or incinerators. If disposals are currently in use for food waste, consider water metering to identify increases or reduction of water used, based on your proposed composting/pulping process.

Step 2: Secure Administrative Support

Now that you have a baseline of food waste generated, you can provide potential cost savings information and other advantages of composting to senior leaders. Connect with key individuals like infection control, safety, environmental services, regulatory affairs and community engagement, for example and prepare a proposal for administration’s review. Make the case for focusing on Sustainable Food Services.

It’s important that the composting program is supported by administration and connected to other sustainability initiatives. Even if you are just getting started, join departmental activities together into a facility-wide initiative. Keep in mind, though, that there won’t be cost savings until you eliminate a waste compactor pull, but even if composting does not lead to elimination of a pull per week, combined with other efforts like increased recycling and through tracking compactor weights, your facility eventually will be able to eliminate a pull and this is where the cost savings will be realized.

Step 3: Create Your Team

Sustainable Food Services could be a subcommittee of a Green Team or Healing Environment Team or could be addressed as a Departmental Quality Improvement Initiative or within the Joint Commission Structure. While the make-up of your work group may vary site to site, common members would include Food Services, Facilities Management, Infection Control, Environmental Services, Public Affairs, Safety, and Administration. In addition to in-house staff, identify business partners, including vendors that can support your efforts and consider inviting architect/design team members for logistical and space planning. (See Practice Greenhealth’s “A Guide for Creating Effective Green Teams in Health Care.”)

Step 4: Identify Partners

Meet with your facility’s waste hauler to see if they offer composting services. If not, they may be able to identify a composting service. If not, reach out to other organizations in your community to see who they work with or check www.findacomposter.com to see if there are

composting options in your community. No success? Some hospitals compost on-site on their own land or others partner with local farms, parks or arboretums that use the compost. Clearly, your options will vary depending on location - rural or urban and the offerings in your area. Still coming up empty? Let us know!

If using a composting vendor, work with purchasing to negotiate service and contractual needs to ensure containers, signage, training, timely removal, quality assurance and regulatory issues. Consider visiting the compost facility as well as the potential for providing compost to staffers or promoting composting through community events like farmer's markets. Reach out to your health department to let them know of your intentions and make sure they are onboard and part of the process. They may have recommendations or requirements for composting in your region. Remember to check with your municipality to see if there are any grants or other incentives to help implement composting at your site.

Where no composting opportunities exist, one option is to work with your local water authority to identify if anaerobic digesting processes are available in the municipality. While many feel that pulping the food waste and sending to the local waste water treatment plant for anaerobic digestion is not a best management approach, it should be considered if there are no composting opportunities in your region, but only with the participation and agreement of the local municipality and water authority.

Step 5: Conduct Your Needs Assessment

Follow the delivery of food through your facility. By understanding the points of food residuals generation during food preparation and post-consumer disposal, one can better understand the best method of food scrap collection. For example, one PGH member facility found that they were unsuccessful in getting those in the cafeteria to properly segregate their compostables and recyclables from their meal tray. Post-consumer disposal containers were eliminated; all trays were placed at the return window and the food service staff segregated materials appropriately.

Assess food prep areas and identify opportunities to reduce waste at the point of generation. Inventory the types and amounts of disposables currently in use both in the cafeteria and on patient trays. Sample disposables could include polystyrene cups, soup bowls, "clam shell" take out containers, plates, plastic forks, spoons, knives and more. Purchase napkins that are natural or unbleached so that they can be composted easily.

Check with catering to see what is used for meetings and other functions. Inventory the types, amounts and cost of each of these disposable items.

As a committee, identify what items can be switched to reusable or to a compostable alternative. For more information on purchasing compostable food ware, refer to Health Care without Harm's Choosing Environmentally Preferable Food Service Ware document at:

<http://www.noharm.org/details.cfm?ID=1456&type=document> and the USDA BioPreferred program catalog (kitchen) at <http://www.biopreferred.gov/Catalog.aspx>

Step 6: Purchase the Right Equipment

Whether pulping onsite or collecting and storing food for composting "as is" conduct a facility walk through with composting partners, food services leadership and other team members to identify all materials needed to support the composting program. Bins (sizes, color, placement),

biodegradable collection bags, outdoor storage, food pulping equipment, water measurement, signage and more should be considered prior to the pilot. To pulp or not to pulp? Pulping food waste into smaller pieces can reduce the volume of the material by 80 to 90%, reducing pick up and associated hauling/tonnage fees. Those constructing or renovating existing kitchens may consider having the pulper pipe the material directly outdoors to the compost storage container. Ensure that collection receptacles are closable and designed to maintain a safe and hygienic environment. Biodegradable collection bags make it easy to frequently transport food waste to the outside collection bin, to reduce odor or potential for pests within the kitchen area.

Step 7: Start Small!

A kick-off pilot, starting in the Food Prep area is a low stress way to work out kinks, educate staff, and test the process. Pilot programs take the pressure off – it's a learning model to work out any issues, try out a variety of methods and determine appropriate container locations. During the pilot, improvements can be made, programs tweaked, feedback incorporated and then the program expanded slowly to other areas.

Step 8: Communicate, Educate and Celebrate!

Consider the opportunities for communication including posters, table tent cards, patient menus, newsletters and signage to educate staff, patients and visitors about the composting food program. Visual representation of acceptable materials is very important. Partners, including equipment providers and composting vendors, may be helpful in both training development and in-servicing.

Integrate education into new employee orientation, annual training, and staff and community newsletters. Celebrating your success and recognizing team members is critical to maintaining the momentum. One way to get recognition is through Practice Greenhealth's Environmental Excellence Awards!

Step 9: Measure, Monitor and Report

Through the use of PGH Greenhealth Tracker™ or another method, measure, report and document the impact on overall waste reduction. Continue measuring waste generation as the department embarks on other waste or toxicity reduction activities. Communicate the waste volume and associated cost savings to department heads, senior administration and the board of directors and tie it in with facility or system wide environmental sustainability initiatives.

Step 10: Integrate into Long Term Operations

Develop policy in line with composting program for inclusion in overall waste plan and document through Environment of Care and other committees. Include composting rounds as part of other departmental, environmental or safety rounds to ensure that protocol is followed, on-the-spot training can be provided and any issues such as dirty containers, pests, missed pick-ups or odor concerns can be addressed as they arise.

Maintain constant communication with your compost vendor to address any contamination issues. Have the composting facility take photos of contaminant problems and explain to staff exactly why the contaminant is a problem and how it can cost your operation if it comes from your facility. Don't wait for problems! As with any initiative, unless carefully monitored and managed, sloppiness and old habits will come back, so continuous focus and oversight are critical to success. Ensure that the on-site manager takes on this responsibility to ensure a

quality program. Ensure staffers, visitors and community are trained and informed on an ongoing basis.

Further Resources:

Green Guide for Health Care Food Services – Operations Section: www.gghc.org

Health Care without Harm Food Resources, including case studies and a breakdown of the GGHC Food Service Credits: <http://www.noharm.org/us/food/resources>

Health Care without Harm Healthy Food Pledge - Health Care without Harm has a Healthy Food Pledge. For more information see: <http://noharm.org/us/food/issue>.

EPA Composting Page: <http://www.epa.gov/epawaste/conservation/rrr/composting/index.htm>

Earth 911: <http://www.earth911.org/master.asp?s=lib&a=organics/organics.asp>

U.S. Composting Council: <http://www.compostingcouncil.org/>

Chittenden County Food Composting Page with composting information, tips and equipment: <http://www.cswd.net/composting/>

This document was prepared by Practice Greenhealth with support from:

Patricia D. Millner - Environmental Microbiology, Food Safety and Sustainable Agriculture Laboratories - ARS
United States Department of Agriculture

Mitch Birchfield - EVS Director and Hazardous Materials Manager, Children’s Hospital and Regional Medical Center

Andrew Shakman - President, CEO, Leanpath, Inc.

Marie Kulick - Senior Policy Analyst, Institute for Agriculture and Trade Policy
Co-Coordinator, Health Care Without Harm Purchasing Work Group

Lin Sensenig - General Manager Stero and Somat Companies
Divisions of ITW Food Equipment Group