Food: *Too Good to Waste!*

Composting at Schools… One Apple Core at a Time

What is Composting?

Composting is nature's way of recycling (with lots of our help)! Controlled, aerobic, or oxygen-rich conditions provide an environment for beneficial microorganisms to transform organic materials such as food scraps and leaves, into a probiotic amendment for garden, crop and landscaping soils.

Methods

Vermicomposting – "Red wriggler" earthworms convert vegetable and fruit scraps into vermicast, a.k.a. worm castings or "worm poop," a valuable soil amendment. Worm bins can be small enough to fit on a classroom shelf, or large and span the length of a school garden.

Bay or Open Composting – A system of open topped bins constructed of either cinder blocks, lumber, or even pallets. This type of system is suitable for onsite composting at a school garden, and can handle *some vegetable and fruit scraps.*

In-Vessel or Containerized Composting – An enclosed vessel or sealed system of composting bins helps maintain optimal temperature and moisture conditions to hasten decomposition while preventing access to pests. With proper handling, these systems can handle a range of feedstock materials including post-consumer food scraps, cooked fish and meats, and dairy products.

Aerated Static Composting (ASP) – Air pushed through perforated pipes aerates compost, resulting in better control of odors and more rapid decomposition. The process requires less manual labor, but more upfront costs. If processing post-consumer foods including meat and dairy, it is recommended that the system be enclosed.

Composting in Action!

Ramona Unified School District – Since 2014, RUSD's award winning program has composted more than six tons of food in the Earth Tub at Ramona High School.

Cuyamaca College Child Development Center and Intergenerational Garden –

All leftovers and preschoolers' plate scraps have been composted since Fall 2015 in a wire mesh enclosed system. More than five tons of food scraps have been converted into a valuable soil amendment to enhance the school's intergenerational garden's soil. As a result, many fledgling future leaders are gaining an understanding of food systems and composting!

Joan MacQueen Middle School – This school began composting food scraps onsite as part of its new organic gardening program. Launched in Fall 2018, about 25 pounds of vegetative scraps are being cleared from students' plates every day, with 450 pounds diverted the very first week of activity. These food scraps are being composted, feeding the soil and as diversion increases, the school is planning to expand to larger compost system.

KEYS TO COMPOSTING SUCCESS

Compost Suitable Foods: Any leftover food from the kitchen or scraped from students' plates can be composted. In addition to vegetable and fruit scraps, cooked foods including meat and dairy and even soiled napkins can all be safely composted with the right composting system and appropriate plan for operation (contact the County to learn more).

Perform an Audit: Knowing the quantity and character of the food generated at school is vital in order to select an appropriate compost system technology and size it to fit the school's needs. The EPA's "Guide to Conducting Student Food Waste Audits" is a great resource for schools. A Google search with the guide's title will bring it right up.

Commit to the Program: The process must be well managed and supervised by trained and knowledgeable people. **This is especially important if composting food!** Composting requires regular attention - think of the microbes decomposing the material as pets or even farm animals that must be fed, watered and nurtured on a regular and consistent basis. Students can be trained to manage the composting process as part of a club or a class.

Manage Collection: Collecting food from the kitchen is a straightforward process once bins are in place and staff are trained. Collecting students' plate scraps will require food bins (or buckets) arranged to facilitate separation, as well as adequate education and signage.

Bin monitors are a good idea (at least during the program start-up) to help ensure students sort materials correctly. Committed oversight and assistance can be conducted by student volunteers (and overseen by a designated teacher or staff person), and is crucial in keeping trash out of the food collection bins.

Allocate Resources:
Note that resources, labor and costs are highly variable and unique for each program. Basic requirements include:

- A secure location to compost, keep bulking agent (wood chips) and an area to cure and store compost
- An adequately sized compost system, water source, and power source
- Garden tools such as wheelbarrows, pitchforks and shovels
- Composting equipment such as collection buckets, a scale (to weigh the food), a compost thermometer and a finished product screen
- A secure area such as a closet or shed to store equipment
- Teachers, staff, volunteers and/or students to perform routine operations, as well as intermittent tasks such as turning compost bins, and screening compost
- Signage to instruct and inform compost site attendants and visitors