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The US Composting Council, with support from Kimberly-Clark Professional* and Keep America Beautiful, has developed this guide to provide information on workplace composting programs that support sustainability, waste reduction, and zero waste initiatives. Although the guide has been developed by the US Composting Council, the guide's application is universal with its reach. The purpose is to provide information on composting at the workplace. It's not hard to make composting part of standard business operating procedures but it takes time and planning. Many businesses benefit from composting including office buildings, manufacturing facilities, hotels, event venues, hospital and medical facilities, grocery stores, and restaurants. Stakeholders have various roles in reducing and composting materials that are generated at the workplace.

REDUCING FOOD WASTE THROUGH PREVENTION & DONATION HAS SIGNIFICANT ENVIRONMENTAL, SOCIAL, & ECONOMIC BENEFITS.

The next sustainable step to manage unwanted organics generated at the workplace is to compost it. Composting can be a positive addition to a business recycling and waste minimization program.



GREATING SUSTAINABILITY

Most people are familiar with compost, especially anyone who maintains a garden. Did you know that farmers and landscapers also use compost to improve the properties of the soil? Compost has many benefits and can help communities and businesses achieve their sustainability and zero waste goals by providing a great alternative to landfills. In addition to reducing your landfill footprint, compost can enrich soil, reduce erosion, improve drought tolerance, and help reduce the generation of greenhouse gases, all while growing healthier plants!

A composting program at your workplace provides the opportunity for staff to become engaged in waste reduction efforts while providing many benefits for the workplace. The single most effective way to increase composting is to plan ahead. This guide provides information on collecting organic materials in the workplace effectively and efficiently.

The terms "organic material" or "organics" are often used interchangeably and may remind you of the classification you see on produce or other products in the grocery store. However, they also refer to the feedstock for composting and refer to something that grew or was derived from something that grew. Fruits, vegetables, plants, grains, pasta, bread, meat, fish, and dairy are all classified as organics. Many paper items like napkins or coffee filters are also considered

organic material because they were derived from trees. Manufactured items from an organic base can also be classified as organic material. These include some types of utensils, plates, cups, bowls and bags made from corn and potato starch, or bagasse which is a byproduct of harvesting sugarcane.

THE RECYCLING OF ORGANIC MATERIALS TO CREATE COMPOST IS CENTRAL TO ACHIEVING HEALTHY SOILS, CLEAN WATER, AND A SUSTAINABLE SOCIETY. THIS GUIDE WILL HELP YOU IDENTIFY WHAT MUST BE DONE TO CREATE AND SUSTAIN A COMPOSTING PROGRAM FOR YOUR WORKPLACE.



START UP CHECK LIST: THE 6 C'S



1. CONFIRM AVAILABILITY OF ORGANICS COLLECTION

Before starting a composting program, contact your waste hauler & confirm they have a collection program for organics. Be sure to clarify what kinds of organic material they will accept, as well as any special requirements they have related to collection [specific containers, pick-up windows, etc.]. You can also consider local donation programs for unconsumed food from a cafeteria or kitchen.



2. CONDUCT A WASTE AUDIT

A waste audit will help you identify the types of waste, as well the volumes, generated within your facility. This is also a great opportunity to investigate where material from your workplace ends up. Do you know how much of your waste is recycled vs. ending up in a landfill?



Determine what additional equipment you will need. Consider placing separate compost, recycling, and landfill containers together in your workplace. It's important to use a clear, easy to understand visual management system to help employees correctly dispose of waste in the appropriate bin. You may also want to consider using compostable trash can liners for the organics disposal containers.



4. CREATE EMPLOYEE ENGAGEMENT

Don't underestimate the difficulty associated with a facility-wide behavior change initiative! It is critical to give your employees plenty of notice about the changes and how they will be affected. Consider placing signs in break rooms and above trash or recycling locations to alert employees that you will introduce a composting program in the coming weeks. An email campaign that alerts employees to the coming changes is also a great way to gain buy-in and drive compliance.



5. COMMENCE COMPOSTING!

Working with your waste hauler, set up your facility with the proper containers, signage, and communicate with your employees -- you're ready for composting! As with any behavior change initiative, it may take some time for employees to adapt to the program. Fear not, things should

normalize within a few weeks. It is important to solicit feedback after the initial implementation to make necessary adjustments to things such as bin placement or collection schedules.



6. CONTINUE THE PROGRAM

You can ensure ongoing and continued success of the program by keeping your composting effort top of mind with employees. Work with your waste hauler and determine how many pounds of organic waste your workplace has diverted from the landfill. Report the results to employees on a quarterly basis. Consider challenging employees with holistic waste reduction and/or composting goals. Remember, if they're not throwing it away, you're not paying for the disposal costs!

START UP CHECK LIST: THE 6 C'S

PLANNING A COMPOSTING PROGRAM AT THE WORKPLACE

Setting up a composting program at the workplace will take time, training, and planning. The steps below will support the development of a formal composting program at the workplace. Also included is a checklist of the steps to workplace composting.

YOU MAY NEED TO GET BUY-IN FROM SOME OR ALL OF THESE PARTIES:



OWNERS

Business. Property. Public Entity



MANAGERS

Property, Operation, Engineers, Health & Safety, Landlord



WORKPLACE STAFF

Administrative, Food Vendors, Waiters, Contracted Staff, Volunteers, Sponsors



CONTRACTORS

Cleaning Services, Equipment Rental Company, Utility Providers, Service Providers



NON-PROFIT

Food Bank, Sustainability Organization



STEP ONE:



Before starting the composting program, contact the waste hauler to confirm they have a collection program for organics. Discuss program options with the owner or highest decision maker early in the process to gather support for the program. Consider organizing a green team comprised of leaders and interested employees from various divisions within the workplace. Identify a compost champion who can lead the process and ensure longevity and success of the program. Most businesses will use a hauler to collect items for compost, but some may choose to compost on site.



QUESTIONS TO ASK THE WASTE HAULER:

- Do you offer collection for composting?
- What materials do you accept for composting?
- Do you accept pre and post-consumed food, meat based organics, and paper goods [i.e. paper napkins, paper towels, etc.]?
- Do you accept accept Biodegradable Products Institute (BPI) certified single-use products?
- Do you recommend using compostable bags for collecting organic items?
- What size containers do you provide for composting?

- How frequently will the containers be collected?
- What is the cost of the service? Will this cost be offset by a decrease in garbage collection?
- Do you have a representative available to do a walk-through to assess the workplace for composting?
- What compost related services are offered (signage, staff training, waste audits, indoor bins, etc.]?
- Are there other customers in the area with a compost program?

STEP TWO:



A waste characterization study is a formal study to quantify the amount and types of waste being generated at the workplace. Information from the study will help a business identify current waste disposal practices and identify which items should be recycled or composted instead.



A WASTE AUDIT IS PERFORMED TO:

- Determine the composition and quantities of generated waste
- Measure effectiveness of current waste management systems
- Identify opportunities to improve recycling and composting strategies
- Collect baseline information for measuring the effectiveness of waste diversion strategies

The California Department of Resources Recycling and Recovery developed a method for completing a waste characterization study that can be viewed at: http://www.calrecycle.ca.gov/wastechar/yourdata.htm



STEP THREE:



Identifying the right equipment and supplies needed is an important step to the composting program. Some businesses compost to support strict zero waste goals while other businesses are interested in being more sustainable or possibly saving costs.

BIN SELECTION & PLACEMENT

It is important to have compost collection bins distributed where organics are generated. This includes kitchens for restaurants, lunchrooms for offices, and restrooms. These bins should be a different color and placed next to waste bins for convenience. Compost materials collected must then be transferred to the waste haulers bin for collection and transportation to the compost site.

Ideally, compost, recycling, and waste bins are placed together in "stations" so it's convenient for employees, customers, and quests to properly dispose of items. Bins should be set up in the same order wherever they are placed. A compost container alone is likely to be treated as a trash can. It may be more effective to line the bin with a compostable bin liner to improve collection efficiency and reduce bin-washing costs. Compost bins may be transported, dumped, and cleaned without using liners. The bin should be sized properly and emptied daily.

WORKPLACE LOCATIONS FOR COLLECTING COMPOSTABLE MATERIALS

Below are several areas in a workspace that may generate compostable materials. These locations vary by type of business.

- **Restrooms**: Restrooms generate items that may be accepted in the composting program. This includes select paper towels and tissue products. All Kimberlu-Clark Professional* paper towels meet the ASTM D6868 standard for compostability. Other bathroom paper products, with the exception of feminine hygiene products, may also be compostable. Smaller trash bins may be provided in bathrooms for items that must be thrown away. Check with the hauler to confirm what bathroom items are acceptable for composting.
- Back of House: The back of house is the employee-only area, unseen by customers and the public. In a restaurant, this is where food is prepared and stored and may include the break room and changing area. A high level of food waste and food soiled paper items will be generated in the back of house of restaurants, events venues, and employee kitchen and break rooms.
- Front of House: The front of house is where customers or visitors interact with staff and employees. Front of house locations tend to generate minimal food waste except for large venues, special events, and hotels.

STEP THREE: CONSIDER WHAT EQUIPMENT YOU NEED & WHERE [CONT.]

COMPOSTING QUICK GUIDE

COMMONLY ACCEPTED



Food scraps: fruits, vegetables, dairy, bread, meat

Coffee grounds, paper coffee filters

Tea leaves, tea bags

Flowers, landscaping clippings, plants

Kimberly-Clark Professional* paper towels

Some paper napkins, bags

MAY BE ACCEPTED



Compostable service ware

Greasy pizza boxes

Juice & milk cartons, other wax coated cartons like ice cream or take-out containers

Liquids: soda, juice, soup, etc.

Food soiled paper

Animal fat, grease, bones, shells, used oil

SHOULD NOT BE ACCEPTED



Glass

Metal

Plastics

Certain glues & binding agents

Foam cups and containers

Diapers

Wood pallets

Animal or human feces

STEP THREE: CONSIDER WHAT EQUIPMENT YOU NEED & WHERE [CONT.]

SIGNAGE

Signage for waste, recycling, and compost should be coded to visually remind staff and visitors where specific items go. Actual pictures of acceptable items for the compost program should be placed on the sign. Signage should be eye level above the bin it applies to and on the bin itself.

DINING SUPPLIES, DISPOSABLE CONTAINERS & **COMPOSTABLE BAGS**

Instead of single-use disposable foodservice items like utensils, plates and containers, businesses with waste diversion goals should consider supplying reusable items or single-use compostable products. It is important to identify potential hidden costs with such a change prior to making a decision. Consider whether or not the workplace has a cafeteria, restaurant, or employee kitchen. It may also depend on whether the workplace has a dishwasher to wash reusable service ware.

Polystyrene (Styrofoam) or plastic plates, cups, utensils, and take-out containers can often be replaced with paper products at the same or lower cost. Starch or fiber-based compostable products that look and feel like plastic, while more expensive than conventional plastics, can reduce dishwashing operations and labor costs. Use service ware that is properly labeled so customers and employees can identify non-compostable from compostable food service ware.

The US Composting Council has developed a compostable plastics toolkit designed to help determine if a compostable plastics program is appropriate for the business. It can be viewed at http://www.cptoolkit.org.

More information on compostable, degradable, biodegradable, and biobased items can be viewed at https://goo.gl/wHf98U.

COMPOSTABLE PRODUCT CERTIFICATION

There are many products on the market that claim to be environmentally friendly, so how can you know if a product is truly compostable? Especially for a compostable plastic product it is important that an independent third party verifies this claim, as per the USCC's labeling guidelines [http://tinu.cc/USCC labeling]. Products that meet ASTM standards D6400 or D6868 have demonstrated the ability to safely biodegrade in a professionally managed industrial or municipal composting facility. In the US and Canada, the Biodegradable Products Institute (BPI) provides this third-party certification. However, it is still important to check with your local composting facility or hauler, as they may not accept all compostable products. A complete list of BPI certified compostable products can be found at http://products.bpiworld.org.

STEP FOUR:



It is important to educate employees on proper composting procedures as they will be placing items in the correct containers for waste, recycling, and composting.

WAYS TO ENGAGE EMPLOYEES TO COMPOST:



Develop a green team to provide feedback and support for sustainability initiatives



Create "pop quizzes" asking staff to identify what is and is not compostable



Set monthly goals on pounds composted and share results



Design a composting goal "thermometer" and post in the break room



Reward staff when the composting goal is reached



Gift finished compost to employees



STEP FIVE:



Separating food scraps, food soiled paper, and compostable items from non-compostable items is important. Items such as plastic forks, film wrap, latex gloves, and Styrofoam cups can contaminate the composting stream. Staff should be instructed on what can be composted and what cannot. During the start-up phase, it is important to monitor what is being placed in the compost containers so the program is successful.

STEP SIX:



Once the compost program is executed correctly, consider reducing the size of the waste dumpster or frequency of collection by the garbage service. Reducing services will save time and money. Continue to monitor contamination levels of the compost stream. Make sure to promote the program's successes and get recognized for the effort. Post signs throughout the business about the compost program success. Inform employees, patrons, contractors, and visitors of the program through email, promotional items, newsletters, social media, etc. Provide updates of the program at green team and staff meetings. Lastly, close the loop by purchasing finished compost for the landscape and planters.

PROGRAM OVERSIGHT

Generally, the person who oversees waste and recycling operations at a business would also oversee composting operations. The owner, manager, cleaning staff, operations department, health and safety manager, and any other stakeholder should be involved early in the planning phase of the composting program.





FREQUENTLY ASKED QUESTIONS

DOES COMPOSTING ATTRACT PESTS AND CREATE ODORS?

If the composting program is done correctly then there should be no pests or odors. Compost bins inside a workplace should be emptied daily or as often as the normal waste removal process requires. Compostable trash bags are effective at keeping bins clean. Outdoor dumpsters should have a lockable lid to minimize pests and odors.

WILL COMPOSTING TAKE MORE TIME?

No new waste is being generated when setting up a composting program. It's simply putting items in a new bin other than the trash bin. Separating materials actually helps keep the waste area of a workplace clean. By composting and recycling, many businesses save money from avoided disposal fees.

WHAT MATERIAL IS NOT ACCEPTED FOR COMPOSTING?

Confirm which items the hauler does not accept for composting. Typical items not accepted include glass, plastic, metals, construction waste, wood pallets, and diapers.

WHAT ARE THE INITIAL COSTS TO STARTING A COMPOSTING PROGRAM?

Start up costs for a composting program may include the purchase of composting bins, compostable liners for bins, compostable utensils and cups. Contact the hauling company to determine if there is a cost to collect and transport compostable materials. Many companies provide this service at a reduced rate for a cost savings.

ADDITIONAL COMPOSTING RESOURCES

US COMPOSTING COUNCIL

http://compostingcouncil.org

Compost solutions on where to buy compost: http://compostingcouncil.org/compost-buyeruser-info/

Compostable task force: http://compostingcouncil.org/compostable-plastics-task-force/

Compostable plastics toolkit: http://www.cptoolkit.org/

KIMBERLY-CLARK PROFESSIONAL*

http://www.KCProfessional.com

KEEP AMERICA BEAUTIFUL

http://www.kab.org

Recycling at Work resources: http://www.recyclingatwork.org

BPI LIST OF CERTIFIED (TO ASTM STANDARDS) FOOD SERVICE WARE

http://products.bpiworld.org/companies/category/foodservice

A FREE DIRECTORY OF COMPOSTING FACILITIES THROUGHOUT NORTH AMERICA

http://www.findacomposter.com/

POSITION PAPER ON DEGRADABLE ADDITIVES

http://www.plasticsindustry.org/files/about/BPC/Position Paper on Degradable Additives - 012113 - Final.pdf

CALRECYCLE INFORMATION ON HOW TO COMPLETE A WASTE CHARACTERIZATION STUDY

http://www.calrecycle.ca.gov/wastechar/yourdata.htm