

LET'S SCRAP FOOD WASTE

This document is meant to be a starting point for a school looking to incorporate food waste collection into their daily work flow. It is by no means all encompassing but will give a champion of this system a good idea of where to start with preparations. Below, you will find products suitable for food waste collection and you will gain an understanding of compostable certifications for appropriate materials.



Disclaimer

If it's not certified compostable... it might not be able to breakdown in ours and our neighbor's compost operations. Of course, paper items (with no added plastic) will all be fine and do not require certification, but if it is a plastic-like material do look for the appropriate certifications shown below:



If a product has any of the following certifications, your item IS compostable! If it does not hold any certifications, then how can you be sure?

- ASTM D6400
- BPI
- EN 13432
- TÜV
- Compost Manufacturing Alliance (CMA)

If you see the following labels, look for actual certifications or else you may be bamboozled:

- Compostable
- Biodegradable
- Green
- Eco Friendly
- Sustainable

Composting With an Outside Service

If you are collecting food scraps for a hauler/transfer station, materials may look a little different than if you are composting on site. Here are some products that help with food scraps leaving your school and finding their way to be composted elsewhere. Check with your hauler/transfer station about what is and what is not acceptable for their system (i.e. compostable plastics vs wood-ware).

Bags

Not everyone finds that compostable plastic bags, similar to traditional trash bags, are completely necessary in their practices but some utterly depend on it. Compostable bucket/bin liners make emptying your receptacles much easier and reduce the amount of clean up necessary when collecting food scraps, which can be juicy at times in warmer months and frozen in the colder season. The collection bags below are all certified compostable and vary in thickness. Depending on whether you're using the bag as a liner or if you plan to lift the bag out by hand, different methods will make this process easier. It should be noted that if you are using bags that are not certified compostable, they need to be disposed of separately. Only bags that come in a box labeled with the appropriate certifications AND are individually marked with the compostable certification are considered acceptable to compost manufacturers. Make sure you are not getting something that has been "greenwashed". Many compostable bag options can be found at Brown and Roberts, Achille Agway, Hannaford's, Fireside True Value, the Brattleboro Food Co-op, and One Stop Country Pet Store.



EcoSafe is an excellent brand for larger compostable bags. Rated for ASTM D6400 this bag has been proven to breakdown in a natural composting process. The bags are 0.85 mil thick so they can withstand food waste of all sorts. This is a great choice as a liner for your larger totes that you may already have in use for other waste materials. EcoSafe has bags sized for 2.5 gallons all the way up to 90 gallon capacity. Withstands exposure to liquids and holds up well when stored outside in the winter within the designated tote. Buy on greenpaperproducts.com or www.zoro.com



These USA made bags are, you guessed it, compostable. This product meets ASTM D6400 standards for breakdown in industrial compost systems. At 0.85 mil thick, these will protect your bins from spillage and therefore can stand up to freezing temps without sticking to your collection bins. Translucency assists with identifying contamination. Bags range in size from 12-16 gallons to 55-60 gallons. Purchase from plasticplace.com or other online vendors.



Biobag offers collection 3 gallon and 13 gallon food scrap collection bags. Biobag is the leading brand for compostable plastic-like products. Some find the material to be a bit soft/delicate compared to Forid's stiff and sturdy bags. However, this is a great option if compostable alternatives are not available at any given time. Smaller compostable bags, due to their volume capacity, rarely have breakage issues. For larger bags we recommend something a little hardier. Check out the biobagusa.com site for purchasing options.



Still didn't find what you need? Check out BPI's website which lists countless certified compostable bag vendors. Check out more products at <http://products.bpiworld.org/>



In The Lunchroom

Some schools create a lot of waste when it comes to the tools of the cafeteria (utensils, straws, trays, etc), but there are alternatives that put the school's environmental conscience at ease. These alternatives include a well communicated message that encourages staff and students to bring their own, OR a switch to compostable products in tandem with a composting program. The items below are all rated for breaking down completely in a commercial compost setting, which is exactly the setting that Windham County has in place for diverting food scraps and other organic waste. Of course many vendors exist for this new wave of compostable products, but the popularly used site, Webstaurant, offers a plethora of options. From disposable wooden spoons to compostable plastic straws you can find a compostable alternative for each and every disposable, front of house accoutrement imaginable. Some alternatives are even near in price to their plastic twins. Although compostable plastics are theorized to breakdown in an industrial compost system, wooden alternatives sometimes perform better out in the field and are often just as sturdy as their plant-based plastic alternatives. The same cannot be said for paper straws... they just don't hold up for very long.



wooden utensils



appetizer bowls



palm leaf plates and bowls



portion cups



cold drink cups



hot drink covers



cool drink covers



portion cups & lids



lunch trays



reed straws

Bins & Buckets

Whether you are collecting food scraps for on-site composting or off are all basically the same. Considerations for bins used for food scrap collection in Bear country are a bit more involved than your regular trash barrel but the idea is the same - contain the waste until it moves onto the next stop without creating a mess or giving off odors. When it comes to indoor food scrap collection, many alternative containers exist. Shop/thrift around for one, or get creative with a DIY project in order to suit your school's aesthetics and double as a classroom activity that engages students.



This 2.4 gallon capacity compost collector is perfect for low volume food scrap collection. With its replaceable air filter, this container will keep odors from escaping. Find at Home Depot or their website.



This 2.4 gallon capacity compost collector is a more narrow alternative to the above and still perfect for low volume food scrap collection. This model has a lockable lid that aids in moisture retention and prevention of unwanted odors. Find at Home Depot or their website.



How about a classy ceramic crock for your food scraps? This example from Gardens Alive, available at Home Depot or on their website, offers a clean look, a carbon filter for odor control, and a handle for easy handling.



If your food scrap waste is more substantial, say in a commercial kitchen, a larger volume container might be needed for daily use. This 8 gallon Garland food scrap container comes with odor filters and compost caddy liners. This package deal is available from Home Depot.



Have a tight space to work with and don't have much room for extra bins? Slim Jim offers an answer for compost collection. These narrow, 23 gallon capacity bins, are perfect for the food prep station. Of course, you can use existing Slim Jims for whatever you'd like to put in them, but this offers a very clear message to the staff about expectations for the use of this bin. This one was found on websturant.com and will fit



Already using a circular bin for food scraps? Swap it out with something a littler greener. This 32 gallon Brute container is designed with venting channels to allow easy liner removal. Green and labeled, this bin clearly demonstrates its purpose and will signal to staff a sustainable switch. Found on websturant.com. Throw it on a dolly and wheel it out to your outdoor collection bin.



Ideal for schools who are starting out small or those with a small volume of organic waste per week. This 13 gallon curbside caddy is easy to use by haulers and individuals hauling on their own. Found on webstaurant.com.



Sometimes a 5 gallon bucket is your best bet for in-house food scrap collection. Being able to seal the bucket is especially important for the warmer months in order to deter insects and other pests from proliferating. A screw top lid is especially helpful to keep liquids in and are easier to remove than pop-top lids. Using multiple 5 gallon buckets create a work flow that even students can help out with because they are easier to pick up and transfer than larger bins.



Extra

The items below will help you revolutionize your workspace. From compostable gloves to tools for maintaining your new, sustainable systems.



Gloves! If you can handle a loose fitting glove for sanitation needs, then this compostable version could be an upgrade for your staff. Found on greenpaperproducts.com

Resealable Food Storage Products



Resealable food storage bags. If you find you're using a lot of ziplocks and want a disposable alternative that doesn't create waste in the landfill, then these are here for you. Biobagusa.com will help you locate an online vendor to purchase these from.



If you are using a small food scrap collection container that has a space for a carbon filter, don't leave it in forever! Make sure to change out your carbon filters every 6 months or so to ensure odor and insect control. You can find these at Agway or Home Depot.





Keep your bin liners in place with large rubber bands. These bands are reusable and outlast the winter blues even when stored on the bin outside. When liners shift and food/liquids seep into your toter, there is risk of your food waste freezing to the inside walls - it is also not a fun thing to clean, so keep those bags in place with a sturdy rubber band! You can find these at Home Depot or on their website.



Protect your hands while handling food waste! Waterproof gloves are preferable over cotton or leather work gloves. These are handy for taking out the tra- I mean compost and for handling food waste collection bins. Find a pair at your local hardware store.



Not using a liner? This is just what you need! Covering your compost collection with a 2" layer of sawdust and/or wood shavings will greatly decrease the chance of a bear visit and it will deter flies from spreading in and around you food collection area. Having this cheap and easy to use amendment on hand at all times (and near your food scrap bin) makes all the difference when it comes to pests and odor.

On-site composting

On-site composting at school will involve some extra tools. Below you will find resources for starting up and maintaining your school's system.

Other steps to take when implementing a new system includes teacher and student buy in. Kicking off your new program may include a waste audit and finding new materials for the lunch room/classroom. Clean River has a fine resource for schools looking to implement a composting program. Check it out by googling: 6 Steps To Start An Organic Compost Program At Your School (cleanriver.com).

Worm Bins



Worm bins are perfect for the classroom! This method is interactive and allows students to get a front row seat to decomposition by their worm friends. Many worm bins exist on the market and have varying designs. These can live outside when it's warm out or live in the classroom all year long. Have students hold onto their lunch scraps and feed the worms when they're done with their snacks and lunch. Find this model on the Gardener's Supply website.



Bokashi Systems

Meant to exist inside (hello classroom!) the Bokashi method is unique in that it employs a period of anaerobic decomposition that actually pre-digests items that you can then add to an outdoor system or buried directly in the soil. Bokashi produces two outputs: liquid compost tea and digested food scraps that will breakdown in your outdoor compost system faster than if added as is. Many Bokashi bins and additives exist. This particular brand was found on the Gardener's Supply website.



The above is a purchasable option, but DIY Bokashi bins are easy, cheap and fun to make. All you need is 2 equal sized buckets, a sealable lid, and a screw driver. A helpful video we identified is "A Beginner's Guide to Bokashi Composting" and can be found on YouTube. This video shows how to make your own kit, what to do with the contents, and some troubleshooting information.

Compost Display



Seeing is believing! This see-through compost display allows you to place any item in this 3 part container and track its decomposition with the help of the magnifying lenses and thermometers. This is a great tool to use in tandem with making a switch to food scrap diversion and illustrating the importance. Organic materials in a composting system break down into compost while if deposited into a landfill may not break down for years and will off gas methane to boot! Use this display to compare the life cycle of a piece of fruit vs plastic vs paper and have your students track the process.

Composting On-Site Outside

There are many options for composting systems in the outdoors. Composting on site needs to be maintained regularly but offers opportunities for teachers itching to get their students outdoors and interacting with nature in a hands on approach. Depending on school participation a school could employ a small, low maintenance model, a large 3 bay system that allows for interaction, or a combination of systems to demonstrate food recycling options. Visit WSWMD's website to get some ideas from their composting page. WSWMD has a demonstration site that teachers/staff can visit and get a better, in-person idea of what each system involves.

Small & Mighty



Jack's Tumbling Compost System is on display and for sale at WSWMD and is an option for when space is limited. We recommend using two at once so that while one is resting and full, the second can be added to. These units are \$95 each, are made using a durable plastic barrel and a cedar wood stand. The contents of these barrels are sure to heat up as they absorb the rays from the sun.



The Earth Machine compost system works much like the one above, except it is static and does not spin. The unit is 33" tall with a 33" diameter and can hold up to 10.5 cubic feet. The side ventilation allows for gas/heat exchange. It has a twist top that deters pests and is easy to close/open. At \$55, this is a good investment that is built to last and will produce (with your help!) compost year after year for outdoor or classroom gardening.

Outdoor Compost Systems cont.



The Jora Composting system, available from WSWMD by special order at ~\$300, sits off the ground and has lockable lids which make for excellent pest deterrence. Like Jack's Tumbler system, this container can spin in order to incorporate all of the ingredients inside and makes for a faster finished result.



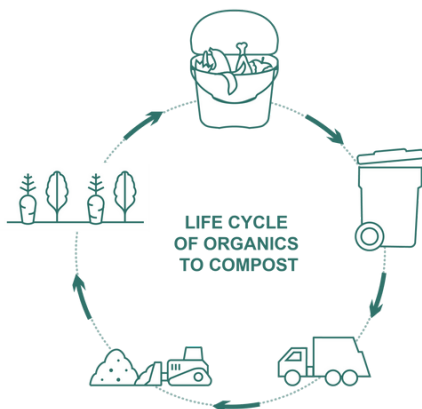
A 3 Bay Composting System is great if there is a permanent space for this kind of set up. Placement is key as many would rather not travel too far to the compost bin and would also not like to wheelbarrow finished compost uphill. Price varies for this type of operation depending upon how you go about the building process. If interested we can refer you to a grant program that offers help specifically for this type of composting at schools. In addition to the structure, having a pitch fork, shovel, aerator, and water access can increase success. Many materials are suitable for this type of project - even pallets will do (in some cases they are preferred). You can dress up or dress down this option. Wire mesh on the insides and bottom to keep burrowing animals out, a lid for your resting pile, the options go on. Ideally a 3 bay system will reserve 2 bays for compost and 1 for dry material like leaves or shredded paper. When all of your materials are in an easy to reach space, composting is a breeze. WSWMD offers composting workshops or can be reached on the phone or email for troubleshooting.

A note on on-site/backyard composting

The materials that you would add to a backyard system are different than in an industrial setting. Because it is not guaranteed how hot your compost will get, it is not advisable to add in commercially certified compostable items as they will likely not breakdown within the desired timeline. Alternatively, some food scrap haulers will also not accept these certified compostable plastics due to greenwashing and the common confusion people have with regular plastic vs compostable plastics. WSWMD's list of acceptable items are for our commercial compost system and should not be used as a guide. As a rule, it is extremely important to have plenty of brown/carbon rich material on hand when implementing a compost system on site. Additional browns/carbon rich material like leaves, saw dust, straw, shredded cardboard, etc... can be added if the compost is at all smelly and adding more will help keep pests out as well. No one wants a sloppy, smelly system so stock pile materials with a leaf drive at school in the Fall in order to get a head start.

Engaging students in this process is a value added endeavor as it provides direct experience, hands-on learning that will transfer life skills and create precious memories. Composting teaches about decomposition, life cycles, and can be taken a step further if practicing alongside a garden project. Composting is easy but needs to be maintained on a regular basis, so this is not a project to take on if there isn't a champion to oversee it and to transfer knowledge upon their retirement.

If your school is wanting to improve its food diversion efforts, incorporating food scrap collection is a great way to do this. You have options! Coordinate with WSWMD to set up pick ups with haulers, or compost on site and keep this food cycle as local as possible.



Food scrap diversion with a hauler



Food scrap diversion on site