

Composting 101: How to Reduce Food Waste at Home and Work

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This article is part of Rubicon's [Spring Greening series](#), where you can learn how to green up your cleanup this spring.

Food waste in America is a serious issue, both economically and environmentally. The **U.S. Department of Agriculture (USDA)** has found that over a third of food produced in our country is wasted, costing us hundreds of billions of dollars annually.

According to the **Environmental Protection Agency (EPA)**, more food arrives at landfills than any other material commonly found in our trash, a presence that has contributed to increased methane emissions.

However, there is something we can all do to start reversing these damaging effects—and it is called composting.

Whether for your home or business, learn the ins and outs of this type of [organics recycling](#) by reading through our introductory guide below.

What is Composting?

Composting is a form of organics recycling that helps living materials decompose. Although all biotic matter can break down on its own, composting speeds up the process by fostering an ideal environment for decomposing organisms such as bacteria, fungi, earthworms, termites, and millipedes to live and feed in.

In addition to providing a way to dispose of food and its byproducts properly, composting ultimately creates a dark, nutrient-rich fertilizer that resembles soil and can be used to grow new plants. This fertilizer is called compost.

Although there are many different methods of composting, all tend to take the [following five factors](#) into account:

1. **Nutrient Balance:** When composting, you need to balance alternating layers of "green" matter (food waste, grass, manure, etc.) with layers of "brown" matter (dry leaves, wood chips, twigs, etc.) in order to help decomposers do their thing.
2. **Particle Size:** Keeping your food scraps small will make it easier for decomposers to process them, as well as help maintain insulation and keep your composting mixture balanced.
3. **Moisture:** Decomposers need moisture to eat and survive. Intentionally watering your compost pile (except when rainfall occurs) is the best way to achieve the correct moisture levels. Be careful not to overwater.
4. **Oxygen:** Aerating your compost pile speeds up the process of decomposition. You can increase oxygen flow by turning your compost mixture manually or adding bulking agents like wood chips and newspaper clippings to your pile.
5. **Temperature:** Decomposers thrive within a specific temperature range. Controlling the above factors is the best way to regulate the perfect temperatures for decomposing.

Why Should You Compost?

It's not enough to know what composting is. Learning all the reasons why you should compost can help you take the first step toward regularly doing it.

Without going into extensive detail, some key benefits of composting are:

1. Reducing food waste
2. Lowering methane emissions from landfills and combating climate change
3. Enriching soil and yielding healthier plants and food
4. Assisting with stormwater management
5. Minimizing disposal and food costs

What Food Should You Compost?

Before getting into the nitty gritty of composting at your home or business, let's talk about what you should—and shouldn't—add to your compost pile when starting out.

We're primarily going to focus on specific food groups and their byproducts in the lists below. For a complete list of food and plant matter you should and shouldn't compost on-site, the EPA created a guide which you can [access here](#).

Foods that are safe to add to your compost pile include:

- Fruits
- Vegetables
- Grains
- Legumes (beans, etc.)
- Nuts and nut shells
- Egg shells
- Loose tea and coffee grounds
- Loose spices

Foods that you should avoid putting into your compost pile include:

- Meat, scraps, and bones
- Dairy products
- Egg yolks and whites
- Fats, grease, lard, and oils

Remember: any food item is technically compostable. However, foods added to your on-site compost mixture from the second list tend to produce intense odor and attract pests, which may disrupt decomposition. You're free to compost whichever foods you like, provided that you're willing to take steps to prevent any problems that arise from doing so.

It's important to note that most commercial composting facilities that accept food scraps can easily handle items from the second list. If you have a food scrap collection service, find out which items are accepted in the program and which ones are not.

Additionally, unwanted leftovers, processed foods, and condiments are fine to compost if you add them in moderation, mix them in well, and place more of an emphasis on whole foods in your pile.

How to Compost at Home

Composting at home is easy if you know what you're doing. For a breakdown on how to compost food in your own backyard, keep reading.

Learn About Community Composting Rules

Your first step will be to study up on any [community guidelines regarding composting](#). Depending on where you live, some towns may prohibit it entirely on residential lots. Others may simply have restrictions that tell you how, when, and where you can compost.

Pick Your Composting Method

As mentioned before, there are many ways you can decide to compost outdoors. The following recommendations refer to [types of composting](#) that can easily be done in your own backyard:

- **Vermicomposting:** This method uses worm bins to create compost, which you can make yourself or buy. Worms placed inside these bins eat food waste and turn it into high-quality, soil-like castings. It will take approximately three to four months for food to decompose completely. With this method, you'll need to pay close attention to the temperature of your pile, as worms can only thrive in certain environments.
- **Static Pile Composting:** This method consists of a single compost pile that gets replenished with food waste over time. To aerate the pile from top to bottom, bulking agents are often added in separate layers.
- **Aerated Static Pile Composting:** You can also lay compost over a series of pipes that blast air into the pile from below. It will take approximately three to six months for food to completely decompose. With this method, you'll need to pay special attention to oxygen flow and temperature.
- **In-Vessel Composting:** This method consists of a drum, silo, bin, tumbler, or other vessels that are used to create compost. The benefit of using a vessel to manage food waste is that it reduces odors and environmental tampering. It will take a few weeks to three months for food to completely decompose.

If you need to compost indoors, vermicomposting and in-vessel composting are your best options. Although your final amount of fertilizer will likely be smaller, you'll have a much easier time controlling for temperature and aeration.

For a great resource on how compost is made, check out the video below:



Keep Calm and Compost

Once you've picked your method and acquired the necessary supplies, it's time to start composting.

At the end of the day, composting is all about balance. It's going to take time to figure out the right particle sizes and materials for your pile, as well as how much air, water, and heat it will need to decompose. By remaining observant, vigilant, and patient, you'll be making compost in no time.

How to Compost at Work

Composting at work can be a lot like composting at home. Here's the dirt on business composting.

Conduct a Waste Audit

Before deciding on the best way to compost, your [business should audit the amount of food that is being wasted](#). If your place of work is on the smaller side, you may be able to manage office food waste by composting on-site (see steps above). However, if your volume of wasted food tends to be on the larger side you may want to look into community or municipal food scrap collection programs to help you recycle your organics.

Find the Right Composting Program

The best way to manage food waste for commercial venues is often by embracing a series of food recycling programs.

Before composting, see if you can divert your excess food to other programs. Food donation programs can recover unused, edible food by sending it to families in need. Other food scrap recycling programs reserve leftovers for use as animal feed. Rendering can recycle unused meats, fats, and bones by turning them into other products.

If the above programs aren't enough to dispose of all your food waste, your next step will be to find [composting programs](#) that will. These programs may be municipal or private composting facilities (or public-private partnerships), which typically use large-scale in-vessel, aerated static pile, or aerated windrow methods.

The programs you choose to participate in will depend on where you live and how much food waste your business generates.

Commit to Composting

Once you've found the right composting for your business, your last step is to commit to the process. By doing so, you'll not only be benefiting your business by reducing waste costs—you'll be benefiting the whole world.