Composting is a microbial process that converts waste from your kitchen and yard into a nutrient-rich soil amendment or mulch. Gardeners have used compost for centuries to improve their soil and to supply essential nutrients for plant growth. Hennepin County residents have two options for turning food waste into compost - backyard composting and organics recycling. Depending on program availability and personal preference, some people use one method, while others use both. Since you can include different materials in each, choose what works for your household!

1. Backyard composting involves creating a pile of organic materials that break down into compost in your yard. The pile usually needs to be contained in some way, so check your city’s ordinances or ask your city recycling coordinator.

**Pros:**
- Great way to recycle yard waste like plant trimmings and leaves as well as fruit and vegetable scraps right at home.
- Get free compost to use in your garden.
- Can be used as a learning activity for kids.

**Cons**
- Cannot include meat, oils, dairy products, or certain compostable items (such as certified compostable cups, take-out containers and utensils).
- Requires maintenance that some people find burdensome.

2. Organics recycling is the collection of food scraps, non-recyclable paper products and certified compostable plastics that are sent to an industrial-scale composting facility. Non-recyclable paper products include materials like napkins, tissues, egg cartons and paper towels that aren’t accepted in single-sort recycling. Certified compostable plastics have been specially designed to compost and have been tested by a separate company to meet certain requirements for compostability. Organic materials are bagged and picked up as part of your waste service similar to trash and recycling, or you can take them to a drop-off location.

**Pros:**
- Can include all food waste including bones and dairy as well as compostable paper and compostable plastics.
- Good for people who don’t have the outdoor space or ability to do backyard composting.

**Cons:**
- You do not get the finished product for use in your yard or garden.
- Organic materials are collected separately from yard waste due to regulations about invasive species.
- Requires bagging either in paper or compostable bags.

**Indoor collection containers**

For either method of composting, you will need to collect your organics in some kind of a container inside. Covers on collection containers can be more problematic than helpful as bacteria decomposing your food waste without air create the stinky smells you might associate with garbage. If you do want to use a bin with a cover, it should have vents or a carbon filter to allow air flow. If you are having a problem with odor or flies, you can keep your collected organics in the fridge or freezer until it’s time to take it to your backyard pile or organics cart.
Backyard composting basics

What to compost

Many of us understand what we should compost, but we sometimes get confusing information about what we should NOT compost. Composting is a microbial process and microbes – also called microorganisms – will not decompose synthetic products such as plastics or glass. Home composting systems typically don’t reach high enough temperatures to break down meat, dairy, grease and oil. These materials can also attract critters to your compost bin and cause foul odors. Feces from pets may carry pathogens that could cause health problems. Large pieces of wood do not compost quickly, so wood should be chipped or shredded and used minimally. Organic materials that can be added to enhance the nutritive value of compost include blood and bone meal, cotton seed meal and aquatic plants.

What about cuttings treated with herbicides?

Studies have shown that low levels of herbicides are detectable even in well-decomposed yard trimmings, but these levels are less than 1 percent of the level found in trimmings prior to composting and is not considered a risk for using in the garden. Ideally, grass clippings from lawns treated with herbicides should be left on the lawn to decompose, which allows the herbicides to degrade.

Benefits of using compost

As a soil amendment:

Compost loosens and aerates soil and improves water and nutrient retention. Adding 1-2 inches of compost to the top 6-8 inches of your garden improves soil structure over time, making the soil easier to work while creating a better environment for plant growth. Compost is beneficial to a variety of soil types. It improves drainage and aeration in heavy clay soils and increases the moisture-holding capacity of sandy soils.

Adding compost to your soil will attract beneficial organisms such as earthworms and microorganisms that break down organic matter naturally. Compost also improves seeding, plant emergence and water infiltration by reducing the potential for soil crusting.

As a mulch:

Adding 6-8 inches of compost to garden beds suppresses weeds by blocking light to the soil surface. The mulch will decompose and add organic matter to the soil. Compost also reduces the potential for erosion by protecting the soil surface from wind and hard rain.

Using compost as mulch reduces moisture loss. Top-dress your lawn with compost to conserve moisture and add organic matter. Use compost in window boxes and container gardens where rapid moisture loss is a factor. Compost may also keep soils cooler in the summer and warmer in the winter.
Steps to backyard composting

✅ Assemble your compost bin

Compost bins are for sale for at the Hennepin County Drop-off Facility in Brooklyn Park during regular facility hours. Many lawn and garden stores also sell compost bins. Additionally, you can search for options online to make a compost bin yourself with a few materials and tools.

✅ Find a place for your compost bin

Choose a place in your yard where your bin is easily accessible but not an eyesore. Some people incorporate their bin into the design of their landscape and plant their garden right around the bin!

Select a spot where your bins gets some sun and heats up your pile. Locating your bin in full sun will heat up the compost pile faster but will dry it out more often, requiring periodic watering. Some shade will prevent this.

Good drainage and accessibility is important for your compost bin. You should have enough room around the bin to allow you to turn the compost and a water source nearby in case you need to add moisture. Think about being able to access your bin year-round so you can continue composting in the winter.

Each city has its own ordinances about composting. Check with your city recycling coordinator for details concerning your local laws.

✅ Layer your materials

Start your pile with a 6-inch layer of brown materials, such as twigs and/or cornstalks. This will help elevate your pile and allow air to circulate at the base of the pile. Then alternate layers of brown materials and green materials. Add a few layers of garden soil or finished compost, which contain the microorganisms required to speed up decomposition. Add a little water to dampen the pile, and you are on your way!

✅ Maintain your compost pile

As your compost pile begins the decomposition process, the temperature of the pile will begin to rise, especially in the center. A well-built pile may reach temperatures of 130°-160° F in just a few days. The pile will begin to cool in four to five days, and a depression may appear in the middle of the pile. At this point, it is time to turn the pile. Use a garden fork and turn the outside of the pile inward. Steam may rise from the pile – this is a sign that the decomposition process is working! If the pile is dry, add a small amount of water. If it is too wet, add some dry materials such as dry leaves or cornstalks. Cover the pile with a layer of brown materials, soil or compost (to ensure any food scraps are buried), and it will start to re-heat.

Turn your pile on a regular basis – about once a week. Doing so will speed up the decomposition process, giving you finished compost sooner.

✅ Identify when your compost is finished

Under warm conditions, a well-tended compost pile will be finished and ready for use in about 2-4 months. Left untended, a bin may take a year to decompose. A finished compost pile is about half its original size, is loose, dark and crumbly, and smells good – like fresh soil. Most of the materials that went into the compost pile should not be identifiable. Another sign that your pile is fully composted and ready for use is when it no longer heats up.
The recipe for a successful compost pile

There are four basic ingredients for good compost: carbon, nitrogen, oxygen and moisture.

**Carbon and nitrogen:** In the composting process, microorganisms use carbon for energy and nitrogen to make proteins. For home composting, this translates to a proportion of three parts carbon (brown materials) to one part nitrogen (green materials). Given this "diet," microorganisms can make short work of your compost.

**Greens (nitrogen):**
- Coffee grounds
- Fruit and vegetable peelings
- Grass clippings
- Green leaves
- Plant trimmings

**Browns (carbon):**
- Dried grasses
- Leaves
- Straw
- Sawdust
- Twigs

**3 to 1**

**Oxygen and moisture** are important for the health and activity of the microorganisms. An active compost pile – one in which microorganisms are actively converting organic materials to compost – has good air circulation and the moisture consistency of a wrung-out sponge. If a pile is compacted or too wet or too dry, microorganisms will cease their work and the pile will become passive.

**Air circulation** can be accomplished though turning your pile with a garden fork. Do not allow the pile to become soggy as this causes anaerobic conditions (meaning no air) and usually produces a foul smell. A pile can become too wet due to excess water from rain or from too much green material. This can be corrected by adding carbon (brown) material and by turning the pile to increase the oxygen level.

**Troubleshooting common problems**

The Minnesota Pollution Control Agency has information on how to troubleshoot common backyard composting problems, such as what to do if your pile smells, is composting slowly, or attracts pests. You can find it by searching [pca.state.mn.us](http://pca.state.mn.us) for "common compost problems."

**Tips for home composting**

- Keep your compost pile at the right moisture level. If your compost pile has a bad odor, it lacks air circulation or it may be too wet. Try turning the pile and/or adding dry material.
- If your compost pile is not heating up, it may need more nitrogen or "green" material.
- Bury kitchen scraps at least 8 Inches deep in the compost to discourage critters.
- You can keep adding to your compost pile as it is composting; however, you want to start a second pile if you have enough materials.
- Add a layer of straw or hay to the top of your compost pile in the winter to keep it warm, and keep on composting!
- The best pile is made up of a variety of materials.
- The smaller the pieces of compost material, the faster the pile will decompose.
Organics recycling

Organics recycling service is available in some cities and through some haulers. Contact your city recycling coordinator or hauler about how to start service. Organics recycling service in Medicine Lake, Medina, Minneapolis, Osseo, St. Louis Park, St. Bonifacius and Wayzata does not have an additional charge – it is already included in the waste bill. If you want to collect organics but organics recycling service is not available, organics recycling drop-offs are available in Bloomington, Hopkins/Minnetonka, Minneapolis, Richfield, St. Anthony Village, St. Louis Park, and at the Hennepin County drop-off facilities in Bloomington and Brooklyn Park. Check with your city for details. Learn more about the organics recycling options available at hennepin.us/organics.

Tips for collecting organics at home

Use a kitchen pail lined with a compostable bag to collect food scraps, paper towels and food-soiled paper.

If you have issues with smells or flies, keep "wet" organics in the refrigerator or freezer. You can also create a fruit fly trap using vinegar and a few drops of dish soap.

Convert your existing garbage can into an organics bin and use a smaller garbage can.

Label your containers so everyone in your household knows how to sort their waste. Order free labels for your home recycling, organics and trash bins at hennepin.us/organics.

Collect organics (and recycling) throughout your home. Don’t forget about the bathrooms, bedrooms, laundry room and office!
Accepted for organics recycling

All food
- Fruits and vegetables
- Meat, fish and bones
- Dairy products
- Eggs and egg shells
- Pasta, beans and rice
- Bread and cereal
- Nuts and shells

Food-soiled paper
- Pizza boxes from delivery
- Napkins and paper towels
- Paper egg cartons

Other compostable household items
- Coffee grounds and filters
- Hair and nail clippings
- Facial tissues
- Cotton balls and swabs with paper stems
- Houseplants and flowers
- Tissues
- Wooden items such as chopsticks, popsicle sticks and toothpicks

Certified compostable products
- Compostable paper and plastic cups, plates, bowls, utensils and containers

Certified compostable products
- Paper and plastic plates, bowls, cups, containers, and utensils must be certified compostable to be accepted. Looks for the BPI logo or the term “compostable” on certified products. If an item is not certified compostable, it is not accepted for organics recycling and should go in the trash. Examples of items that must be certified compostable include: coffee cups, utensils, to-go containers, plastic cups, and more.

Not accepted

Animal and pet waste, litter or bedding
Cleaning or baby wipes
Diapers and sanitary products
Dryer lint and dryer sheets
Fast food wrappers
Frozen food boxes
Grease or oil
Gum
Microwave popcorn bags
Products labeled “biodegradable”
Recyclable items (cartons, glass, metal, paper, plastic)
Styrofoam™
Yard waste