

Composting at Home

What is Composting?

In Wake County 25% of a household's waste is yard trimmings and food scraps that can be composted. Composting is a natural process of recycling organic materials into a rich soil known as compost. Compost is a wonderful conditioner for soil, full of nutrients to help plants and gardens grow.

Why Compost?

- Adding compost to your garden will help your plants grow bigger and healthier
- Making your own compost reduces your need to buy plant food or soil amendments
- Composting your organic waste reduces the amount of trash your household generates and ends up in the local landfill
- If you live in an area with a 'Pay as You Throw' curbside collection system composting can reduce your trash bill



What Are the Drawbacks of Composting At Home?

- Requires a little space
- Requires some time
- If done incorrectly, can emit odors and attract pests

What is Backyard Composting?

Back yard composting is an easy and cost effective way to convert organic waste, such as yard trimmings and food scraps into a rich soil conditioner in your garden. Many gardeners agree that a backyard compost system is an important part of a healthy garden. There are three main types of backyard compost system; a manufactured compost bin, a DIY compost bin and an open pile.

What Backyard System Should I select?

Manufactured compost bins are a great starting point if you are trying backyard composting for the first time. They are contained systems that take up less space and are pest resistant. There are a number of different types of manufactured compost bins. Things to look for in a good compost bin include, made from a durable material, adequate ventilation holes, a tight fitting lid and a door at the base for easy access to the compost. Drawbacks include the initial cost of buying the bin, expect to pay somewhere between \$50-\$100 for a compost bin. Another drawback is the amount of compost you can produce is limited to the size of the bin.

DIY compost bins or open piles are less expensive alternatives to a manufactured bin and can yield more compost due to their larger size. You will need an area between 3ft x 3ft x 3ft to reach desired temperatures in the middle and 5ft x 5ft x 5 ft to keep the amount of mixing manageable. Common materials used to construct DIY compost systems include, trashcans, concrete blocks, wooden crates, chicken wire etc... There are hundreds of DIY compost system ideas on [Pinterest](#). See pictures below for the main types of back yard compost systems.



A manufactured compost bin, a DIY compost bin, and a compost heap

Where Should I Place My Backyard Compost System?

After selecting the type of compost system to use in your backyard, you need to decide where to place it. There are a number of important things to consider when placing your compost bin or heap.

- **Adequate Air Circulation** - needed for decomposition to occur. Most manufactured bins have air vents, but they are no good if blocked by a wall or fence.
- **Partial Shade** - necessary to prevent excessive heat build-up in plastic bins, sudden changes in temperatures and drying out in the summer.
- **Close enough to your home** - to make throwing food scraps into it convenient.
- **Close proximity to water** – within reach of the garden hose to maintain the right moisture level
- **Situated on bare ground** - necessary for the system to drain.

- **Away from structures** - structures susceptible to rot should not be in contact with decomposing materials, so do not put your system up against a wooden fence or storage building.

What Can I Put in My Backyard Compost System?

All composting requires is browns or carbon (C) rich materials such as dead leaves, branches, cardboard and twigs and greens or nitrogen (N) rich materials such as grass clippings, fruit and vegetables and coffee grounds in a 2-to-1 ratio of browns (C) and greens (N). Refer to table below for a full list of organic waste materials suitable for backyard composting.

Examples of Organic Materials that can be Composted	
Browns/Carbon (C)	Greens/Nitrogen (N)
Dead leaves (not black walnut trees)	Grass clippings
Twigs	Shrub, bush and plant clippings
Paper rolls (towel & toilet)	Houseplant leaves
Straw and hay	Fruits and vegetables
Newspaper and non-glossy paper	Coffee grounds and filters
Paper napkins and paper bags	Tea bags and tea leaves
Pizza boxes and cereal boxes	Flowers, dead blossoms
Egg cartons (not Styrofoam)	Freezer-burned fruits and vegetables
Sawdust, wood bark and wood chips	Egg shells (rinsed)
Nut shells (not walnut)	Old herbs
Cotton balls	Hair, pet fur and feathers
Dryer lint	Beer and wine making leftovers
Cotton, wool, linen, burlap and hemp	Hops, beer and wine dregs
Yarn, thread and string	Aquarium algae and plants and seaweed
Pencil shavings	Herbivorous animal manure (rabbits, cows, sheep, chickens and horses)
Paper baking cups	
Bamboo skewers and toothpicks	
Grains, cereal and crackers	

What Tools Do I Need for Backyard Composting?

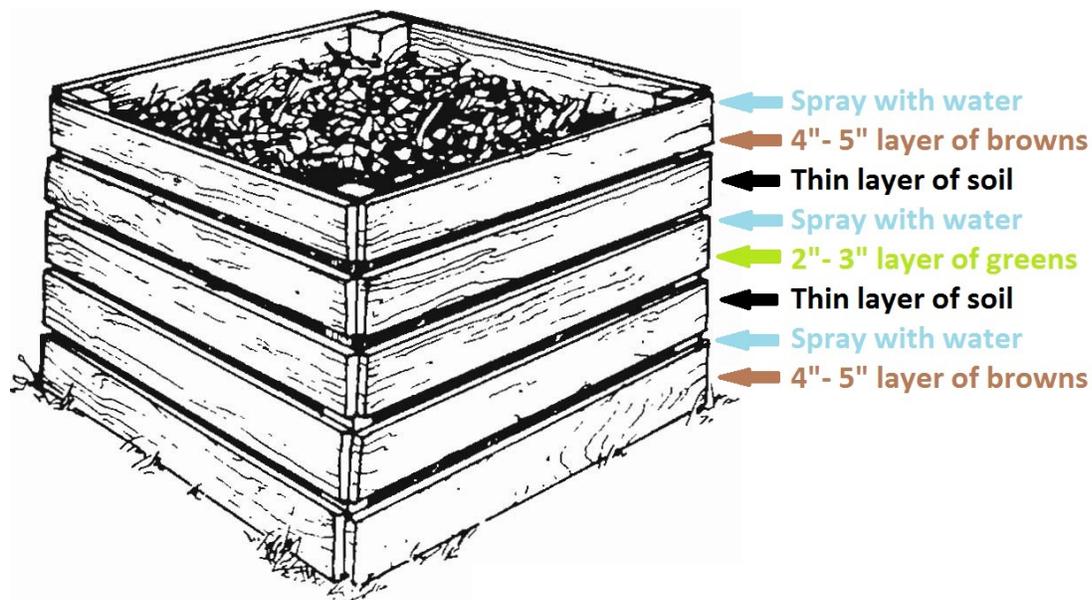
Now that you have selected the type of backyard composting system you want and where to place it, it's time to get started. Here are some handy tools to help you:

- A kitchen caddy to collect food scraps in (optional)
- A pair of loppers/pruners for chopping larger materials (optional)
- A pitchfork for mixing materials
- A garden hose for watering
- A [compost aerator](#) easier for an enclosed compost bin system (optional)
- A shovel for removing compost

What Style of Composting Should I Use?

There are two main styles of backyard composting, the Add-as-You-Go style and the Batch style. The Add-as-You-Go style, allows you to dump it as you produce it and then move on with your day, but as with all things convenient there is a drawback. The decomposition process takes longer, around 3-6 months. Most people compost at home using this method. However, if you have a little more time to invest, using the Batch style will yield greater results in as little as 1-3 months. The batch style takes a little more planning upfront. You make a batch of compost all at once, using stockpiled items such as a pile of leaves, a pile of plant trimmings, and a pile of food scraps to get the perfect recipe in the right amounts. This almost guarantees the organic material will decompose faster. Most people who use this method soon discover they will need another compost system because they stockpile more ingredients than will fit in their first system.

What is The Process?



1. Start with a 4" – 5" inch layer of brown materials
2. Spray with the hose
3. Add a handful of soil/compost
4. Add a 2" – 3" inch layer of green materials
5. Spray with the hose
6. Add a handful of soil/compost
7. Repeat steps 1-6 until you run out of space or organic waste
8. Top with a 4" – 5" inch layer of brown materials
9. Mix and water every 1-2 weeks
10. When heating ceases, cure for 6 -12 weeks, until original materials are unrecognizable

What Are The Ideal Conditions?

1. 4ft x 4ft x 4ft ideal size system
2. 2:1 ratio of Browns (C) to Greens (N) feedstock
3. 131°F - 145°F temperature in the center
4. 40% - 60% moisture level
5. 6.5 pH – 8.0 pH level (neutral)
6. 0.5" – 2.0" particle size
7. 5% oxygen level
8. >35% porosity (air space)

Ideal conditions courtesy of Rhonda Sherman
Department of Horticultural Science at NC State University
<https://composting.ces.ncsu.edu/home-composting/>

What Are Some Useful Tips?

1. If you don't have the strength to mix your pile with a pitchfork or compost aerator simply poking your pile with the handle of a brush will also do the job.
2. Avoid putting any meat, bones, greasy foods and dairy products in your compost system. These are sure to attract critters.
3. Avoid adding yard waste treated with chemicals, such as herbicides or pesticides
4. If your compost system does not have a lid cover with a tarp to hold in moisture
5. Adding activators can help speed up the decomposition process i.e. soybean, canola, alfalfa, cotton seed and soda.
6. You can send compost (as a "waste sample") for testing to [NC Department of Agriculture and Consumer Services](#)
7. Add compost to your beds 1 month before planting
8. Don't add worms to your compost pile, the heat will kill them