Composting for City Folk

Starting a compost bin at home is something that many people want to do but aren’t sure how to begin. Below is a short, straightforward, guide on how to compost in an area without much space. The contents are based on a lot of research and a good bit of personal experience, too.

What’s Included:
Why Compost?
How To Make Your Own
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Why Compost?

- According to the EPA, food waste composes the largest amount, 65 billion pounds, of municipal solid landfill waste each year in the United States.
- 22% of Charleston County’s solid waste is organic matter (food and yard waste).
- With thorough efforts to both compost and recycle at home, you could divert 70% of your waste from the landfill!
- Why divert form the landfill? One good reason is that as solid waste decomposes, it releases a lot of CO2 and methane. Methane has 20 times the impact of CO2 on the atmosphere; landfills cause for 17% of the United States’ methane emissions, and are the third greatest source of human-related methane emissions.

The Guide Within...

When I first decided I wanted to start composting at home, I thought it was simple. I thought you could just throw whatever edible but unusable things you want into a bin and let the bacteria and/or worms do their work. After months upon months of smelly, not-so-enjoyable compost sitting on my porch, I decided to do some further research.

Below is a guide that I’ve developed based on a combination of my own experience and the research I’ve conducted. There are hundreds of guides out there on how to compost, but this one is specifically for those with little space, likely having to put their compost container on a porch or the like.

Who Am I?

Hey there! My name is Abby and I am an intern at the College of Charleston’s Office of Sustainability. I love food, but I also am a bit concerned about it. The lack of connection between people and their food is something that worries me and something that needs revitalized. One way to begin this process is to understand that food “waste” is actually no such thing – it is a collection of valuable, wonderful nutrients! One way to help reconnect yourself and to motivate others to connect with their food and the overall food system is just by shifting practices around your home. Composting is a fantastic way to waste fewer resources and to truly engage in your own eating habits.

Questions?
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3 http://www.charlestoncounty.org/DEPARTMENTS/SolidWaste/composting.htm
4 http://www.epa.gov/lmop/basic-info/index.html#a02
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Step One: Choose your container

All you really need to be sure of is that the container won’t leak where you don’t want it to and that it won’t rot (wood can be a bad choice?). You could use things such as a 5-gallon bucket, a trash can, or an old storage bin.

Other Containers

If you’re willing to spend a bit more money and want to feel more confident that you have a reliable container, you can purchase either a compost bin or tumbler. These are made specifically for composting and will make it easiest to get good results. Your two choices here are between a bin and tumbler, both of which work well but vary in use. Perhaps the table below can help you decide which to choose: bin or tumbler?

<table>
<thead>
<tr>
<th>Compost Bin</th>
<th>Compost Tumbler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larger (2-3 times) food waste capacity per square foot</td>
<td>Smaller food waste capacity per square foot</td>
</tr>
<tr>
<td>Most have an open bottom</td>
<td>Closed bottom</td>
</tr>
<tr>
<td>• Drain excess water</td>
<td>• Trap excess water</td>
</tr>
<tr>
<td>• Open bottom makes most immovable</td>
<td>• Most are stationary, but there are some made with the ability to roll</td>
</tr>
<tr>
<td>• Less durable material; plastic can crack</td>
<td>• More durable material, but must be careful to ensure handles and legs are sturdy</td>
</tr>
<tr>
<td>• Turning (aeration) difficult. Options for aeration:</td>
<td>• Designed for easy turning (aeration)</td>
</tr>
<tr>
<td>• Mix with a small hand spade</td>
<td>• Faster decomposition</td>
</tr>
<tr>
<td>• Lift bin, sort finished compost from unfinished, aerate the unfinished compost with a shovel and place it back in the bin.</td>
<td>• Better aeration</td>
</tr>
<tr>
<td>• Slower decomposition</td>
<td>• More heat trapped</td>
</tr>
<tr>
<td>• Less aeration</td>
<td>• 100% pest proof if sealed well</td>
</tr>
<tr>
<td>• Less contained heat</td>
<td>• More expensive (roughly 30%)</td>
</tr>
<tr>
<td>• Mostly pest proof</td>
<td>• Less expensive</td>
</tr>
</tbody>
</table>
Composting for City Folk

Step 2: Drill some holes – your compost needs air!

Drill small (1/2 inch) holes along the top and sides, above where the food waste will be. This will allow oxygen to enter the bin, since composting is indeed an aerobic process. If you are placing your bin somewhere where you can put holes in the bottom as well, do so, in order to allow excess water to drain. (I had to have my compost on a my porch, so I placed a lid underneath my bin that would allow water to drain but not soak into the wood porch.)

Step 3: Learn your balance

Many people think food when they think compost. I know I did. And although food waste is an essential part of composting, it is not everything. In fact, it should only be about half. There needs to be a balance between brown (carbon) and green (nitrogen) materials in order to have healthy compost. For me, food waste and coffee grounds are my main nitrogen sources and dry leaves and paper bags or egg cartons are my main carbon sources. Different materials have varying levels of such elements. Below is a chart of materials you can put into your compost, telling which ones contain carbon or nitrogen and how much. If you are simply using your compost as a boost for casual backyard gardening, the exact balance of carbon and nitrogen shouldn’t be a big worry to you.

<table>
<thead>
<tr>
<th>Brown (carbon) Materials</th>
<th>Green (Nitrogen) Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>❖ Dry leaves</td>
<td>❖ Vegetables</td>
</tr>
<tr>
<td>❖ Branches or twigs</td>
<td>❖ Fruits</td>
</tr>
<tr>
<td>❖ Fireplace ashes</td>
<td>❖ Coffee grounds, filters</td>
</tr>
<tr>
<td>❖ Sawdust</td>
<td>❖ Tea bags</td>
</tr>
<tr>
<td>❖ Shredded paper products</td>
<td>❖ Nut shells</td>
</tr>
<tr>
<td>• Paper bags</td>
<td>❖ Uncooked, plain grains</td>
</tr>
<tr>
<td>• Paper towels</td>
<td>❖ Flowers</td>
</tr>
<tr>
<td>• Newspaper</td>
<td>❖ Grass clippings</td>
</tr>
<tr>
<td>• Cardboard egg cartons</td>
<td></td>
</tr>
</tbody>
</table>

The easiest way to know you have a good balance is just by looking and smelling: Smelly, watery compost is too nitrogen heavy. (I dealt with this for a while before realizing that all my compost needed was a bit more carbon and a lot more air.)

Good compost should be dark, fine, spongy
And it should smell mildly earthy.
Step 4: Set-up - Add the base layers

After gathering the bin and drilling the holes along the upper sides, top, and perhaps bottom, you are ready to fill the bin!

1. Along the bottom of your container, add a “bedding” of brown materials – shredded newspaper, paper bags, egg cartons, etc.
2. Next, add some green materials, but not too much. Also, the smaller you can cut up the material, the faster it will decompose. (As mentioned before, when I first started composting I only added food waste for a while. I had my initial base layer of carbon items but that was all. My compost turned pretty smelly, wet, and buggy for a while. So, add in the green material a bit at the time, and be sure to keep up with it with brown material.)
3. Add a little bit of moisture – but don’t flood it!
   Same as with each component of the composting process (green, brown, or water), you can always add more the next day. So, add a little bit of water initially to get things started.

Step 5: Keep an eye on your compost

Just remember that your compost needs plenty of food, water, and air
   Just like you!

Recommendations:

- Mix it around every day to keep it full of oxygen; since composting is an aerobic process, adding air will speed it up
- If it looks too watery or seems to attract a lot of bugs, quit adding food for a while and focus on getting your balance back with more carbon materials
- If the food seems to take far too long to decompose, it may be too carbon heavy. Add nitrogen-filled food waste, air, and water if needed
- Don’t be afraid to add water if it looks dry (I’ve only ever had a problem with too much water, but too little water is also a possibility, so I’m told)

The forbidden fruit...
(Things to NOT add to your home compost bin)

- Grease, oils, fats, dressing
- Any non-consumable liquids
- Cooked foods
- Meat, fish, bones
- Dairy products
- Processed foods
- Plastic of any kind
- Treated wood