Garbage to Garden
A quick reference to Making Compost

Composting is the natural process of recycling food and yard waste that normally goes to landfills. Create a compost pile just to process yard waste, or manage it to produce a nutrient rich soil that has many benefits for gardens and the environment. The more actively the pile is maintained, the more quickly compost is produced.

Types of Compost Bins

To begin, choose a spot with direct sunlight and remove the grass from under the bin to allow contact with soil microorganisms. You can just create a pile of compost, make a bin, or buy a bin.

Homemade Bin
This is the most economical compost bin. A homemade bin can be constructed of fencing, wire, bricks, or wooden pallets.

Plastic Composter
This type of bin, available at garden centers, requires the least maintenance.

Rotating Drum Bin
This large hand cranked bin yields finished compost in the least amount of time. It is also available at garden centers.

What to Compost

Compost is comprised mostly of yard waste such as grass, weeds, leaves, and branches. Do not use grass or weeds that are heavily treated with herbicides and pesticides. Kitchen wastes such as vegetable scraps, coffee grounds, and eggshells can be added. Do not use meat, bones, whole eggs, or dairy products because it may attract rodents. Pet or human scat should not be used because it may transmit diseases.

Three Layers

For best results, layer the compost bin as follows:

<table>
<thead>
<tr>
<th>layer</th>
<th>material</th>
<th>amount</th>
<th>purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>chopped brush/coarse material</td>
<td>3-4”</td>
<td>allows air circulation</td>
</tr>
<tr>
<td>2.</td>
<td>damp mixed scraps, leaves, grass</td>
<td>6-8”</td>
<td>retains moisture</td>
</tr>
<tr>
<td>3.</td>
<td>soil</td>
<td>1”</td>
<td>adds microorganisms</td>
</tr>
</tbody>
</table>

Repeat layers until bin is full. To maintain moisture, scoop out a basin on top of the pile to catch rainwater.
A Versatile Product

The finished compost can be used as potting mix and a soil amendment. Studies have shown that adding compost to the soil improves moisture retention and plant health by returning decaying material to the soil. This man-made compost is better than the existing soil because the process provides optimal conditions that don’t exist in nature. These conditions create a nutrient-rich, slow-release fertilizer.

More Information

www.gardeners.com  
www.compostguide.com/  
www.midpoint-int.com/compost.jpg  
ohioline.osu.edu/hyg-fact/1000/1189.html  
www.gardenadvice.com  
www.mastercomposter.com  
www.co.ocean.nj.us/recycle  

Gardener’s Supply Company - search “composter” for composting bins  
articles on composting - click “links” on the bottom of the page for more sites  
poster on composting in all seasons  
composting fact sheet from Ohio State University  
search “compost” for articles  
group of volunteers that provide information and demonstrations on composting  
information on Ocean County backyard composting demonstration site

The Balance

A compost pile consists of organisms that require air, water, warmth, and a balanced diet to sustain efficient decomposition. The following elements should be controlled during composting, regardless of the method used.

- **Carbon to Nitrogen Ratio**  
  A carbon to nitrogen ratio should be 30:1 - see chart

- **Particle Size**  
  Optimal for compost material is 2 inches

- **Aeration**  
  Aerate (turn) at least once a month to sustain oxygen levels

- **Moisture**  
  Compost material should feel damp and expel a few drops of liquid when squeezed

- **Temperature**  
  Plant-digesting microbes operate between 70-140 degrees  
  Turn the pile when the temperature is below or above the optimal range of 105-130 degrees

Turning

After a few weeks, the compost will settle and become dense from decomposition. Turn the pile with a pitchfork, not a shovel, to break up the compacted material. The easiest way to turn is to move the pile to another bin, or just empty the bin and refill it with the turned material. Take the material from the top and sides first - this will be on the inside layer in your new pile. Then put the remaining material on the outside. If the compost seems dry, place a sprinkler on the pile as you turn.

Turn at least once a month, or every three days for fastest decomposition (see chart.) Do not turn in the winter. The compost is ready when it appears dark and crumbly and none of the starting ingredients are visible. To test if the compost is finished, seal a sample in a bag for a day or two. The compost is done if no strong odors are released when the bag is opened.

### Carbon to Nitrogen Ratio

<table>
<thead>
<tr>
<th>Material</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Waste</td>
<td>15:1</td>
</tr>
<tr>
<td>Wood, Paper</td>
<td>400:1</td>
</tr>
<tr>
<td>Straw</td>
<td>80:1</td>
</tr>
<tr>
<td>Grass Clippings</td>
<td>15:1</td>
</tr>
<tr>
<td>Leaves</td>
<td>50:1</td>
</tr>
<tr>
<td>Fruit Waste</td>
<td>35:1</td>
</tr>
<tr>
<td>Cornstalks</td>
<td>60:1</td>
</tr>
<tr>
<td>Alfalfa Hay</td>
<td>12:1</td>
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