

## Home Composting

### 1. What is composting?

Composting is a natural process that turns organic material into a dark rich substance. This substance, called compost or humus, is a wonderful conditioner for your soil.

### 2. Why should I compost?

#### Healthier Plants

Organic matter is known as the "soul of a healthy soil." Adding compost to your yard or garden will help your plants grow bigger and better. The organic matter in compost helps soil hold onto nutrients and water, benefiting your plants while reducing the risk of pollution.

#### Composting Saves You Money

Using compost as a soil conditioner or mulch reduces your need to purchase these lawn and garden products. Composting in your backyard may reduce your trash removal costs. Many sanitation companies charge customers by the bag. Your compost bin could decrease the number of bags your household generates.

#### Composting is practical and convenient

No need to bother bagging leaves and other garden/yard wastes. Simply add them to your backyard pile or bin and watch these items turn into rich dark humus.

#### Composting is a good alternative to landfilling or incinerating convenient

Our yard and garden wastes account for almost 20% of the total amount of trash thrown away each year. Your choice to compost reduces the need to burn or bury organic material and increases the quality of our precious topsoil.

#### **What we throw away:**

Yard and Garden Residues-20%

Food Scraps-9%

Misc. Organic-2%

Paper and Paperboard-32%

Textiles and Wood-9%

Glass-8%

Metals-9%

Plastic-7%

Other-4%

### 3. What should I compost?

While anything that was once alive can be composted, certain items are best left to professionals and kept out of the home composting system. When selecting materials for your compost pile, AVOID:

- Wastes that attract pests
- Diseased/Insect ridden plants

Fatty food items, such as meat or cheese, should be avoided since they can attract rodents, raccoons, dogs, cats, flies and other pests. Cat and dog wastes should not be added because they can spread certain diseases. You may also want to leave out plants that are heavily diseased or pest-infested unless you are confident they will be composted hot enough and long enough to thoroughly break them down. This is also true for the reproductive parts of troublesome weeds (e.g., seed heads, rhizomes).

***What goes in your compost pile? (1 Part Green, 3 Parts Brown)***

<b>GREENS</b> (high in nitrogen)	<b>BROWNS</b> (high in carbon)	<b>DO NOT USE</b>
Grass Clippings	Leaves	Bones
Prunings	Bark	Dog/Cat Feces
Fruits and Vegetables	Straw	Oil
Houseplants	Woodchips	Grease
Manure: (E.G., Cow, Horse, Pig, Chicken or Rabbit)	Sawdust	Fat
Kitchen Scraps: (e.g., stale Bread, Egg Shells, Coffee Grounds (Filters Too), Tea Bags, Citrus Rinds Fruit and Vegetable Peels	Newspaper (Shredded)	Wood Ash
Weed Seeds	Brush (Chopped)	Meat/Fish Scraps
Diseased Plants	Corn Stalks	Dairy Products

**4. How much space will it take?**

Your compost pile needs to be large enough to hold heat, but small enough to allow for proper aeration. The pile should be about 3' wide by 3' long by 3' tall (1 cubic yard). Piles larger than 5' wide or 5' tall are not recommended because they are difficult to aerate. Allow for enough space to work around the pile.

Choose a convenient place for your compost pile. You are more likely to use a pile that is close by and easily accessible. A level, partially shaded spot is ideal. However, you may build your pile or bin in full sun and get excellent results. Easy access to a water supply is also desirable. Do not build compost piles against wooden buildings or trees because the wood will eventually decay.

**5. Is a bin necessary?**

Unless required by local ordinances, bins are not necessary for successful composting. Composting bins may save space and look neater, but good quality compost can be produced using either bins or open piles. Many types of plastic, metal and wooden bins are commercially available and many other types can be made at home. If you decide to use a bin or enclosure check for the following:

- Is the bin size adequate for your needs?
- Does the bin allow for adequate aeration?
- Is the bin easy to load and unload?
- Does the bin allow for easy mixing of items?
- Do you need a bin that is rodent-proof?
- Is the bin well made? Will it hold up?

**6. How much time and energy will it take? What types and quantity of organic materials will I be able to compost?**

The method you choose will be influenced by how much organic material you have for composting, your need for finished compost and the time you have available for your project.

*If you only have grass clippings allow them to stay on the lawn. The clippings will decompose naturally and nourish your lawn.*

Three methods of composting are outlined below: Standard, Slow and Fast. Each method requires varying amounts of time and materials. One of these is sure to meet your needs.

### Standard method

The Standard Method is recommended if you have a variety of organic materials such as leaves, grass clippings, kitchen scraps and yard/garden waste. You will spend time building and mixing the pile each week. A small area will be needed for the compost pile and the temporary storage of organic materials. This method produces compost in six to eight weeks in spring and summer; longer if done in fall and winter.

In the Standard Method, the pile can be made by combining stored materials, or by placing items in the pile as they become available. (When gathering and storing organic materials, keep browns and greens in separate piles) Remember that most greens cannot be stored very long without starting to cause foul odors or attract pests. It is best to incorporate greens as soon as possible into a compost pile.

#### **Follow these steps:**

1. Start the compost pile with a layer of browns. If you have a lot of coarse organic materials, you may want to chop or shred them into smaller pieces. Smaller pieces decay faster.
2. Add a layer of green materials. Try to maintain a ratio of 1 part greens to 3 parts browns.
3. Add a shovelful or two of soil or finished compost. This will add extra bacteria and fungi to get your pile off to a fast start.
4. Mix the materials together with a pitchfork or shovel.
5. Check for proper moisture. Use the squeeze test (refer to page 7) to be sure that your pile has the right amount of water for the composting process. Add water or additional dry material when necessary.
6. Continue to build layers until the bin is full.
7. Mix the pile after one week. Check for proper moisture and aerate the pile. Move coarse or less decayed material from the outside to the center. Adjust the moisture by sprinkling with water or adding dry material. Steam may be seen when you mix the pile.
8. Continue mixing the pile every week or two. Check for proper moisture. During this time the compost will begin to look uniform and dark brown in color. The pile will shrink as the composting process takes place. If the pile does not heat up after turning, is neither too wet nor too dry, and most of the original materials are no longer recognizable, it is now ready for curing.
9. Allow the pile to cure for at least a few weeks, until it looks mostly dark and crumbly and has a pleasant earthy odor. It is now ready to use as a soil amendment.

### Slow Method

The slow method is recommended if you do not have a steady supply of organic materials. This method takes very little of your time, but it requires from six months to two years to complete. Storage space is not needed since organic materials are added to the pile as they become available. With the Slow Method, time is not spent checking for the proper mix or moisture. Since composting is a natural process, it will occur with little or no attention.

Because the proper mix and moisture are not checked, little heat is produced, and the process takes longer to complete.

*If recycling and waste source reduction  
are your main goals, the Slow Method will  
recycle your organic waste and take  
very little of your time.*

The Slow Method is similar to the Standard Method with the following modifications:

1. No need to check for the proper mix or moisture! You build the pile with green or brown materials as they become available.

2. If you add kitchen waste, it must be buried deep in the pile. Dig a hole in the top or side of the pile and cover the scraps with several inches of brown material or active compost. Foods left on the surface may attract pests or cause odors.
3. After six months or more, finished compost will be found at the bottom or oldest sections of the pile. It may be collected and used as it is produced.

### Fast method

If you want a lot of compost to add to your soil, or if you generate an enormous amount of organic matter, you may wish to use the Fast Method to compost your yard, garden and kitchen materials.

The Fast Method requires MUCH MORE of your time and energy, but you will get a finished product very quickly. In this method, the composting process is closely watched to guarantee ideal conditions at all times.

The Fast Method is different from the Standard Method in the following ways:

1. Extra space for gathering and storing organic materials will be needed.
2. All organic materials are chopped or shredded before they are added to the pile. Both electric and gasoline powered chippers and shredders are available. Lawn mowers, prunes or hatchets can also be used to chop items.
3. Check the temperature often with a compost or soil thermometer. In summer months, it may be necessary to check the pile daily. With the Fast Method, very high temperatures (>140oF) can be reached quickly. These temperatures are high enough to kill most weed seeds and disease causing organisms. However, some composting microbes may also be killed. If the temperature goes above 150oF, cool the pile by turning or adding coarse, brown materials.
4. Mix the pile every three days and check for proper moisture.

### **7. Will my compost pile attract mice, rats and other animals?**

If you follow the guidelines above regarding what to include in your backyard compost pile, you should have little problem with pests. Pests are attracted by high fat and protein foods such as meat, oils, cheese, fish, and chicken, but should not be a problem if you only include vegetable scraps, fruit peels, and garden clippings. Occasionally mix the pile's contents to maintain proper levels of heat and oxygen. Be aware of the moisture in the pile. The wetness should be similar to that of a damp sponge - not too wet, not too dry. If you live in an area that receives an inordinate amount of rainfall, try covering your pile so as not to over-saturate it.

### **8. Will the pile smell bad?**

There should be no odor if the pile is properly maintained. The same rules about attracting pests should also be followed to avoid odors. In addition, you can improve your compost pile's performance by turning the pile with a shovel or other turning device. Microorganisms that thrive in environments with no oxygen (anaerobic) tend to generate bad odors, while those that exist in oxygen rich environments (aerobic) do not smell bad. Composters who turn their piles regularly maintain high levels of oxygen throughout the pile. Regular turning will also accelerate decomposition.

### **9. Can I compost during the winter in cold climates?**

Yes. Because microorganisms generate heat and must have oxygen to survive, old climates should not affect the pile too dramatically if the pile is properly maintained. Decomposition may slow down, but the process will continue. Carbon rich materials such as leaves and sawdust must be mixed in the pile with nitrogen rich materials such as grass clippings, fruit and vegetable peels. Along with regular turning and good air circulation, the microorganisms responsible for decomposition will generate heat while they break down the materials into compost.

\*\* Reference: This FAQ was adapted from Home Composting: Recycling In Your Own Backyard, produced in 1999 by the Lehigh County Office of Solid Waste Planning, with funding from county tax dollars and the Pennsylvania Department of Environmental Protection.