

Composting at Home

Location

Select a site for your compost pile that will provide you with ample room to move and work around it. Choose a shady, protected area, because wind and direct sunlight will dry the pile, slowing decomposition. You want your pile to stay moist, so exposure to rain is acceptable. Since you may need to water the pile during dry spells, you will want it within reach of your garden hose. Concave the top of your heap so the pile will take in moisture during drought.

Size of Compost Pile

An effective compost pile must be large enough to hold heat at its center, yet small enough to allow air to permeate the pile. A home compost pile should be at least 3'x3'x3' in order to retain proper heat and not any larger than 5'x5' or proper air circulation may not be maintained.

Getting the Right Mix

There is no exact recipe for perfect compost. There are some basic rules to follow. With a little experimentation, you will find the perfect mix for healthy compost. Compost piles need two main ingredients in their diet (1) **nitrogen** for reproduction and (2) **carbon** for energy. When gathering material to compost, keep in mind that the best diet for these microorganisms is approximately three parts brown (high-carbon) materials, such as leaves to one part green (high-nitrogen) materials such as grass. The best way to know if you have the right mix is by checking the temperature at the center of the pile.

Microorganisms generate heat as they decompose organic material. Temperatures between 90 degrees and 140 degrees F (32 degrees - 60 degrees C) indicate rapid decomposition. This will generally occur in four to five days. You can purchase a temperature probe or soil thermometer to check your pile's heat. Some settling in the pile after four or five days is also a good indication that your pile is working properly.

How to Make Compost

To begin making a compost pile, remove grass and sod cover from the area where you will construct your pile. This will put materials in direct contact with soil microorganisms.

Do put weeds, bread, coffee grounds, evergreen needles, fruit, fruit peels and rinds, garden and lawn clippings, leaves, sawdust, alfalfa hay, straw, pruning's, sod, tea leaves, vegetables, wood ash, wet paper towels, and wood chips in your compost pile. These are all safe and effective materials for composting. You can also soak and tear cereal, snack and soap powder boxes to add to your bin. Cover these materials with leaves and yard trimmings. Start now, no matter what time of year, but definitely start a new batch every fall or whenever you have lots of leaves or yard trimmings. Just mulch it! You can eliminate the hassles of collecting your grass clippings and avoid paying for their disposal. Instead of collecting your grass clippings, leave them on your lawn where they decompose and return nutrients to your lawn.

Do-not put butter, bones, cheese, chicken, meat or fish scraps, lard, pet manure, mayonnaise, milk, oils, peanut butter, salad dressing, vegetable oils, inorganic matter (i.e., Styrofoam), citrus rinds, corncobs, or sour cream in your compost pile. These particular kitchen scraps attract unwanted animals. The following "recipe" for constructing your compost heap is recommended:

Step 1 – Do not build your compost pile on a cement block. A good compost pile will grow worms, and you need to provide an escape route for worms during the winter. If worms do not have an escape route, they die and the compost heap becomes a slimy mess and will smell bad.

Step 2 – Place 3" to 4" of chopped brush or other coarse material on top of the exposed soil to allow air circulation around the base of heap.

Step 3 – Lay 6" to 8" of moist leaves, grass clippings, sawdust on top of the base material

Step 4 – Spread a 1" layer of soil over the pile. This will quicken the composting process by introducing more microorganisms to the pile.

Step 5 – Add 2" to 3" of manure or a handful of commercial fertilizer to provide the nitrogen microorganisms needed for reproduction. Add water if the manure is dry.

Step 6 – Repeat steps one through four until the bin is almost full. Top off the heap with a 4" to 6" layer of straw and scoop out a basin at the top to catch rainwater. A properly made heap will reach a temperature of 90 to 140 degrees in four to five days. A temperature probe or soil thermometer can be purchased at a garden center or hardware store.

Is it best to buy a compost bin or just have an open pile?

Although a bin is not required for composting, many people use one because it helps speed decomposition by holding heat and moisture within the compost pile. You can purchase a pre-made bin at most hardware stores and garden centers, or you can build your own. This is done easily and inexpensively with some readily available materials. Here are a few design options:

Woven Wire and Snow Fence Bins

These bins are economical and easy to make. All you need is a length of woven galvanized wire or snow fencing. (To determine the length needed, multiply the diameter of the bin you desire by 3.2) Fasten the ends of the woven wire with four small chain snaps to make a circle. The snow fencing is best secured with four corner posts.

Block or Brick Bin

You can construct a durable bin with bricks or cement blocks (actually, rocks will work well, too). All you need to do is form three sides of a square container with them.

Do not use mortar between the bricks or blocks, the space between them will allow air to circulate.

Wooden Bins

Construct a wooden bin with removable front or side to allow easy access. Wire mesh can also be used on the sides in place of wood to increase airflow. Wood pallets (skids) make good compost bins. Secure with hinges. Old tires stacked one on top of the other can be used as a compost area; turn the compost by rotating the tires.

Will my compost pile attract mice, rats, and other animals? Will the pile smell bad?

Before problems arise

When determining where to locate your back yard composting pile remember to be considerate of your neighbors and check with your local government regarding any compost zoning or health code regulations.

When difficulties arise

1) If you are having problems with your compost pile, please consult the table below for solutions to some of the most common problems.

2) If problems persist, consider attending a Composting Workshop to learn more about the art of composting.

3) If a problem exists with a neighbor's backyard compost pile consider following these steps:

a) Provide this guide (or have it sent) to your neighbor to help them identify the steps they can take to "fix the problem".

b) Check with your local government regarding any compost zoning or health code regulations.

c) If the situation does not improve after providing educational materials regarding backyard composting, consider calling your local health department.

Symptom Problem Solution

Bad odors- Not enough air, turn pile more frequently or apply lime as cover

The center of pile is dry- Not enough water, moisten materials while turning pile

The compost is damp and warm only in the middle- Pile is too small, collect more materials & mix old ingredients into new pile

The heap is damp and sweet smelling but still will not heat up- Lack of nitrogen, mix in a nitrogen source like fresh clippings

Can I compost during the winter?

Yes, because microorganisms generate heat and must have **oxygen** to survive, cold 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, twigs, and sawdust must be mixed in the pile with nitrogen rich materials such as grass clippings and 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. With the proper carbon/nitrogen ratio and regular turning, heat will be generated and decomposition will occur regardless of climate.

Holiday Trees

Christmas and holiday trees are considered yard waste and can save valuable landfill space. Pine mulch is suitable for top dressing a landscape project, use as a trail mulch, or good for acid loving plants. Be sure to remove all ornaments and decorations from the tree before placing it at the curb, or taking it to a recycling station.

How can I use the Compost I make?

Compost can be used as a **soil conditioner** of mulch. Compost improves the structure of soil and helps retain moisture and minerals. In clay or sandy soils, compost also increases porosity that allows plant roots to more easily penetrate soils and surface water to drain between particles. Compost can be beneficially applied on lawns, gardens, athletic fields, shrubs, trees, and nursery and container plants. For application to your lawn, compost should be broadcast uniformly on grass surface at a rate of 1/8" to 1/2". For shrub and tree care, apply 1/8" to 1/4" compost and work into soil. Compost can also be used in other landscaping techniques, such as around trees, as light mulch instead of straw and can be added to soil around perennial flower beds. In flowerbeds, one to two inches of compost should be worked into the surrounding soil.