Compost

What is compost?

Compost is the end result of the decay of organic matter - it is nature's way of recycling organic materials. Examples of organic matter include garden waste, kitchen scraps, leaves, grass clippings, and straw. There are many methods of composting, but all organic matter will eventually decompose with or without human help. Backyard composting is an acceleration of the same process nature uses. By composting organic waste, nutrients are returned back into the soil in order for the cycle of life to continue. Finished compost looks like soil - dark brown and crumbly - and it smells like a forest floor.

What are the benefits of composting?

Here are 10 good reasons for composting:

1. Yard and food waste make up 23% of the waste stream. Composting kitchen and yard trimmings helps divert that waste from landfills, waterways, and water treatment facilities.
2. Using compost in gardens and lawns significantly reduces pest problems and the use of pesticides.
3. Healthy plants from healthy soil look better, produce better, and have a much greater ability to fight off pests and diseases.
4. Adding organic materials to the soil improves moisture retention.
5. Adding decomposed organic material to the soil feeds beneficial organisms.
6. Compost amends both sandy and clay soils.
7. Compost provides a balanced, slow-release source of nutrients that helps the soil hold nutrients long enough for plants to use them.
8. Using compost in gardens and lawns saves money because soil conditioners and bagged manure are unnecessary.
9. Feeding your plants well will improve your own diet. Plants grown in depleted soils have a reduced nutrient content.
10. Home composting is a valuable tool in educating children about nature and the cycle of life.

What can be composted?

Compost piles do best with the proper mix of "green" materials, which provide nitrogen, and "brown" materials, which provide carbon. Using the proper mix will speed up the decomposition and decay. Some examples of "green" materials are grass clippings, coffee grounds, fruit and their peels, vegetables and their peels, egg shells, manure from plant-eaters, tea bags, hair, fur, grains, and feathers. Some examples of "brown" materials are leaves, straw, dried grasses, sawdust, wood ash, newspaper, yard waste, and paperboard (such as cereal boxes, paper plates, and napkins).

Here are some items that should NOT be composted: diseased plants, weeds with seeds, pet waste, toxic chemicals, charcoal, fats, oil, and grease, meat scraps, bones, dairy products, and treated logs.

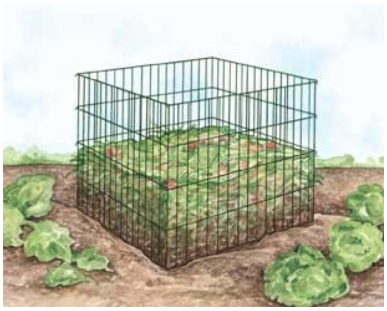
How can organic matter be composted?

There are a number of ways to compost organic matter. The basic concepts are described below. However, even unattended compost piles will eventually decompose.

1. Choose a location. The compost bin or pile can be located in either a sunny or shady area. It is microbes rather than the sun that causes the pile to heat up. It should be easily accessible to water and the organic matter that you place in it. Do not build it against a building or fence. It should be built on a level, well-drained surface at least two feet away from a structure.
2. Add organic matter. Breaking up the size of the material first increases the surface area for bacteria and helps to speed up the decomposition. The best mix of matter is approximately 60% carbon ("browns") to 40% nitrogen ("greens"), but no matter what organic matter is added, it will all eventually decompose.
3. Add water as you build the pile. This way the moisture will be evenly distributed through the pile. Microbes require moisture to survive but not too much. Keep as moist as a wrung-out-sponge.
4. Turn or mix the pile periodically. This has many benefits:
   - Reduces odor problems.
   - Adds oxygen. Organisms need oxygen to survive.
   - Breaks up compacted material.
   - Helps destroy unwanted disease-causing organisms by exposing them to the lethal temperatures at the center of the pile.
   - Helps maintain beneficial microbes by providing more food at the center of the pile.

Compost Pile

Wire Compost Bin



Compost Tumblers
(single bin)

(double bin)

Related Links:

See the following websites for more information about composting, compost bins, and compost tumblers.

http://www.recycleworks.org/compost/index.html

http://www.compostinfo.com/tutorial/index.htm

http://www.ext.vt.edu/cgi-bin/WebObjects/Docs.woa/wa/getcat?cat=ir-ln-ywm
This site has all kinds of documents from the VA Cooperative Extension Service about composting.