

## Building Your Compost Pile

Once you have decided on an appropriate bin, locate it in a suitable area, and started collecting your compost items, you are ready to start piling it up. Keep in mind that there are three key ingredients in maintaining a compost bin. These ingredients are:

1. The right amount of "greens" and "browns"
2. The right amount of oxygen
3. The right amount of moisture

### 1. Greens & Browns

Composting works faster and smells better when you add your compost materials in layers of "browns" and greens".

Browns are dry, absorbent and fibrous. They are also rich in the element carbon which is an essential energy source for the decomposing organisms in your pile.

Greens are fresh, moist materials rich in nitrogen. Nitrogen is vital for growth and reproduction of the decomposing organisms. Without it, they cannot break down materials high in carbon.

#### Browns

- Dry Leaves
- Dry Grass
- Straw
- Wood chips
- Sawdust
- Shredded paper / cardboard / egg cartons
- Shredded newspaper

#### Greens

- Fresh grass clippings
- Plant trimmings
- Fruit / vegetable scraps
- Houseplants
- Tea Bags
- Egg Shells
- Coffee Grounds

If you have too little nitrogen, the microbes cannot break down the carbon, and the composting process will slow down. Conversely, if there is too much nitrogen for the microbes to use, the nitrogen will be lost to the atmosphere as ammonia gas.

### 2. Oxygen

The microorganisms that do much of the work in your compost bin are living creatures. Like many living creatures, they require oxygen to survive. The process of creatures using air when they break down material is called aerobic decomposition. If not enough air is provided, organisms that do not require oxygen survive and the process of anaerobic (without oxygen) decomposition occurs. Not only is this process much slower, but bad odours are often produced.

### 3. Moisture

The microorganisms that do much of the decomposition work also need water to survive, as do all living creatures. If your compost pile is allowed to dry out, the microbes cannot work or survive. Conversely, too much moisture is also not recommended. If a compost is water-logged or too wet, all the air spaces fill with water, which promotes decomposition without air, which in turn slows the process and produces a bad odour.

As you can see, oxygen and moisture are linked when keeping a compost pile. Here are a few tips to help prevent problems:

- If possible, turn your compost regularly with a pitchfork to keep air circulating through the layers.
- Keep your pile as moist as a wrung-out sponge. You may have to water it during dry weather, and turn it if there's lots of rain.

When aerobic (using oxygen) microorganisms have sufficient browns, greens, air and moisture, they give off heat when they are active. Detecting an increase in temperature is a simple method to determine if your compost is working. While using a thermometer is more accurate, you can often detect the heat by simply feeling inside your compost. The heat has an added advantage. The combined heat of millions of microorganisms will speed the decomposition process. It can also make your compost hot enough to kill unwanted spores, seeds, and harmful bacteria.