



Composting is a natural process that happens in every natural eco-system. In a forest, bird and animal manures mix with leaves and twigs on the 'micro organism rich' forest floor. Broken branches and dead creatures are broken down relatively quickly in such a rich living system.

Good compost can be made in your 'back yard ecosystem' by mimicking these natural processes. Compost will greatly improve the soil fertility, sandy soils will have better water holding capacity and clay soils will have a looser structure. It helps the gardener to produce an abundance of healthy plants which are resistant to disease and pests. It recycles natural waste materials at practically no cost and because the soil is so 'alive', nutrients are made available to plants by the action of the thousands of micro-organisms. Healthy plants don't give out the hormones that unwell plants produce, so pests and diseases are less attracted to 'dispose' of them.

Natural solutions are effective for any pest or disease and the use of chemical fertilizers and sprays can be avoided. Virtually everything that has once lived will breakdown in the compost heap. Use the greatest possible variety of materials in the heap. This will ensure that the compost produced will have a good balance of plant nutrients.

For a fast acting compost have a mix of "greens" and "browns" and either mix them up or set them down in thin layers. Use two parts green (approx 3-4cm layers) to every one part brown (approx 1.5-2cm layers). You can start your heap with the stinky bits that didn't break down in your last compost. Your heap needs to be at least 1 metre square and 1 metre high to work well (1.2 metres is ideal) Adding a sprinkling of dolomite or lime every few layers can stop the heap becoming too acidic.

GREEN - nitrogen rich

Greens are materials that go soggy and smell if there is too much of it in one place.

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| → fresh grass clippings | → tea leaves and bags |
| → garden weeds without seeds | → coffee grounds |
| → fruit and vegetable scraps | → animal manure (grass eaters only) |
| → seaweed | → crushed (not whole) egg shells |

BROWN - carbon rich, dry

Browns are those that you could burn if left to dry out, they also help air flow and drainage of moisture. Always start with a double layer of coarse browns for aeration and always build it directly on the ground.

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| → dry leaves | → egg cartons |
| → bark, untreated sawdust | → cotton and wood rags (must be 100% natural) |
| → wood ash | → torn up newspaper/cardboard |
| → twigs and sticks | → straw |
| → vacuum cleaner dust | |

Don't include:

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| → meat or fish | → anything artificial like plastic or acrylic |
| → dairy products | → fats |
| → oils | → invasive weeds e.g. couch grass/convovulus |
| → anything toxic eg sprayed weeds | → dog and cat poo |
| → coal ashes | → weed seeds |

Checklist for a successful compost:

- **A** = Aliveness - compost is a living system. Sprinkle a handful of old compost or some rich garden soil into your compost to add some more living organisms.
- **D** = Diversity - make sure you have a good mix of materials- the more variety the better it works
- **A** = Aeration - make sure you have some coarse materials that will keep the air flowing at different levels
- **M** = Moisture - as you add materials make sure you are maintaining a damp environment- each layer should feel like a wrung out dishcloth. Cover your compost with a wet sack or lid with air holes to keep that dampness in and keep the rain from making it too wet.

If your heap is built over a day or two you can get faster decomposition it will takes weeks rather than months to be ready to use. If you build it over time every time you add some kitchen scraps have a pile of straw or similar to cover it. Everything breaks down faster if it has been chopped into smaller pieces.

1. Initially there will be an explosion of bacterial action which heats the heap to temperatures of 60oC. These bacteria feed on readily available nitrogen, mostly contained in green material. If there is insufficient bacteria, an activator may be needed. This is especially necessary with autumn/winter heaps. Some activators are: animal manure, seaweed, comfrey, nettles, grass clippings, blood and bone.
2. As the heaps cools down fungi and actinomycetes predominate. These attack the tougher carbon rich cellulose material making it available for use by bacteria. Insects, worms and other animals also eat the decaying vegetation and excrete organic compounds. After about 2 to 6 months the compost is mature enough to use.

Because the edges of the heap do not reach the required temperature this material is best not directly used. It can be put into another heap or, better, the heap can be turned every few weeks. Dig the heap out and then rebuild with the edge material in the centre. This also puts a fresh supply of air into the heap. It will then reheat due to a second explosion of bacterial action. Turning generally speeds up the production of compost.

Creating your heap directly on the ground and using it year after year means that the micro-organisms build up in that spot and your compost works faster and more effectively each year. Choose a spot near your kitchen and garden that gets sun for part of the day- warm and well drained. East or west of your house is best rather than in full sun or full shade.

The Structure itself:

There are lots of ways you can build the ideal metre square size structure to contain your compost. Waste wooden pallets can be tied together, a circle of cardboard, lined metal or plastic netting also works well cheaply. Commercial plastic compost bins and traditional three bay or layered wooden squares also work well. It also works just as well in a heap in one corner of your property with an old sack or some straw for a 'roof'.

Using your compost:

When finished it will be 30% of its original volume and will resemble dark crumbly soil. To get the maximum benefit from compost as a source of plant nutrients it should be applied to the soil surface in the spring. Do not dig-in your compost. Apply it as a surface mulch at the rate of 1 bucketful per square metre. Spread it on top of the soil and lightly fork it into the top couple of centimetres.

Healthy soil = Healthy Food = Healthy People.

Note: wash you hands after working with your compost. Keep it moist to prevent spores and dust problems.

