# COMPOST BASICS

**By David Daehnke, The Gardening Guru**

Compost is one the best things the organic gardener can get their hands on. It nourishes plants, giving them many micronutrients and trace elements not found in most organic fertilizers. Plus it also helps protect your plants from diseases. And the best part about compost is you can make it yourself.

## What's in compost?

Compost is simply organic matter that has broken down. Anything that once lived can be composted; although there's some things that are better composted, and others best left out. The building blocks of good compost is what's called "dry browns" and "wet greens".

**Dry browns** are items high in carbon. Try using:

· dried leaves;
· shredded branches and twigs;
· straw;
· sawdust;
· sugar cane trash;
· pine needles or;
· shredded paper

**Wet greens** are naturally high in nitrogen and include:

· grass clippings;
· kitchen scraps;
· manure;
· old cut flowers;
· comfrey leaves;
· tea bags;
· coffee grounds and;
· egg shells (high in calcium).

Some lucky seaside gardeners in cooler climates can add kelp (a form of sea weed).

**What to avoid:**

· you can include old weeds, but we only use weeds that haven't flowered (otherwise you could add weed seed to your compost - not a good idea);
· don't add your dog or cat manure (their worming treatment can also kill off composting worms);
· throw diseased plants away (adding them to your compost could potentially spread the disease further through your garden);
· keep meat and bones away from your compost bin as they'll attract flies, rats and other vermin, and;
· don't include citrus peels (they're too acidic for worms).

**A rough science**

While there is no hard and fast rule on what proportion of dry browns and wet greens you should mix, accepted gardening wisdom supports 5 parts dry brown : 1-2 parts wet greens. Any ratio will work given time, but to get your compost really cooking it's best to have a lot more dry browns.

**Piles, holes, bins and tumblers**

Give it 12 months and a pile of organic matter will eventually break down into compost. You can pile all your organic goodies in some out of the way place in your yard. You might consider using a tarp to cover the pile to keep excess rain leaching out nutrients, keeping stray wildlife away and also helping to "heat up" the pile.

Some gardeners short on space dig trenches in their beds which they fill up with compost ingredients, planting into these 6 months later.

You can also buy plastic compost bins (usually from most local councils at cost price) or make your own with timber and chicken wire. Just a reminder that according to Organic Gardening magazine CCA treated pine has been found to leach arsenic and other toxic substances, so make up your own mind on what timber you use if building bins.

We use the fastest compost making device known to mankind - a tumbler. By turning your bin daily you can accelerate decomposition significantly. This means more compost each year and it's much quicker too (often ready in 2 or 3 months). Mind you this is also the most expensive option, but you get what you pay for.

## Getting things cooking

Composting happens when bacteria starts decomposing organic matter down to more basic elements. The bacteria start heating up the pile to 120-140F degrees (50-60C degrees) where (in theory) weed seeds and bad bacteria are killed off. We say in theory as we've often had seeds germinate in completed compost - which is why we don't add flowering weeds. Worms also enter the compost and work away in cooler pockets where they make vermicast (worm manure) which is good news for your garden (it's great stuff)!

## Speeding things up

To get your compost quicker there are some little tricks you can follow:

· **The smaller the better**- If you've got a chipper or shredder you've got a license to make pure black gold. The smaller your organic matter the easier it is for bacteria and worms to break it down. Even if you don't have one of these machines you can still speed things up. Chop up your kitchen scraps or get hold of shredded office paper.

· **Get the air in** - using a tumbler, or even turning the pile with a pitch fork will get air into the pile. Oxygen is needed for bacteria to do their work. More oxygen means faster compost. Some gardeners get very technical in pumping more air in. They'll build their pile around PVC piping which have had holes drilled into the pipe. This captures the air and pumps it into the heart of the pile.

· **Damp not wet** - to promote breaking down the the compost ingredients it's important to keep the pile moist inside, but avoid getting it slushy. Compost that is too wet can become sour and smell.

· **Getting the ratio right** - as mentioned before a high proportion of dry browns to wet greens will help speed things up decomposition. It's also important to make sure things are mixed well. Grass clippings clumped together will take a while to break down.

· **The wonders of activators** - by keeping back some of your last batch of compost, and putting it into your new pile you can help move things along. As good bacteria and worms are already present it "kick starts" your next bunch of compost.

## It's ready!

You can tell your compost is ready when it's rich, loose and dark. It should no longer look like what first went into your bin.

Now what do you do with it? It depends on whether you're using your compost to enrich the soil for growing, or protecting against diseases.

To improve the soil add anywhere between 1-2 inches of compost, digging it few inches deep. It's just like adding manure, mixing it into the soil as a whole, not just a distinct layer in the soil. For disease protection compost is generally used as a mulch. We still like to put another layer above this (like straw or sugar cane mulch) to stop the compost drying out under the warm sun.

You can also use compost as a pick me up during the hungriest growing season of your plants. This might mean mulching around corn stalks when in flower or cobs are forming, or mulching tomato stems to boost yields. Or you can mix some compost with water to make compost tea - just like liquid manure but using compost. Or use compost tea as a foliar spray.

**Sounds great, but my compost isn't working out**

Here's a trouble shooter's guide to help fix any problems with your compost pile:

· It smells! A strong ammonia smell is quiet common 3-7 days into cooking the pile. But if the ammonia smell doesn't go away you might have too many wet greens to dry browns. Pull your pile apart to dry out its contents or add and mix in more dry browns.
· Done that, it still smells. OK, maybe you're not getting enough air into your bin or pile. Oxygen is a vital ingredient to get microscopic bacteria working for you. Some solutions: build a heap around PVC piping with holes drilled in to suck air deep into the pile; get air in by thrusting stakes into the pile and withdrawing them (hopefully the holes won't collapse); regularly turn your pile or invest in a compost tumbler.
· It's too wet. This will mean your pile probably isn't heating up enough. Pull it apart to try to dry things out a bit. If your compost is just a heap, think about covering it with a tarp or heavy plastic.