

Making Compost

By Alan Davies, Master Composter, retired Professor of Mathematics and The Papillon Project's Compost Advisor



This quick guide is designed for teachers who would like to understand the basics of making compost at their school allotment. Making compost is an incredibly important learning opportunity for young people.



Why compost?

- It's the best way to deal with allotment waste to produce an excellent free resource to use instead of bought fertilisers.
- Compost improves soil and encourages healthy plant growth which is more resistant to disease and pests.
- Your own compost is an excellent alternative to using commercial peat-based compost. Please don't use peat, our peatlands are essential for carbon capture. They take some 10,000 years to develop; once they're gone, they're gone!
- It makes you much more aware of the amount and type of waste that you throw away. Keep your own allotment waste and return the nutrients back into your own soil.

What is compost?

- Compost is the result of the natural breakdown of organic material by bacteria and other organisms such as fungi, insects and worms. It is usually ready in about 12 months. It is rich, dark and crumbly with little or no aroma.
- The mini-creatures feed on the chemical components of organic material, mainly carbon and nitrogen.
- On your allotment you will be *cold composting* meaning that your temperatures (possibly as high as 40°C but usually lower) will not reach those of a commercial compost process.
- Your compost will be formed in an aerobic process, i.e. in the presence of oxygen.
- It's a living process which requires air, heat, water and food.





What can go into your compost?

- Green (nitrogen) and brown (carbon) materials. You need a 50:50 mix of green and brown.
- All the plant waste from your allotment is biodegradable and can go in.
- **Greens**: Leafy plants, annual weeds (make sure there are no seeds), comfrey and nettles are excellent accelerators, cut off the roots and drown them to make *naughty water*.
- Grass cuttings, mix well with brown materials to make sure that you don't get a slimy mess.
- Annual weeds go straight in but it's best to cut off and drown the roots of perennial weeds
- **Browns**: Twigs, cardboard, egg boxes and shredded paper (good for getting air pockets).
- Cut up woody prunings. Dried leaves, but not too many, it's better to make leaf mould.
- Egg shells not biodegradable but they do break down and are very good for soil structure.
- **Take care**: Diseased plants. If it's airborne, e.g. on leaves, OK. On roots definitely NO.
- Pet bedding from herbivores e.g. rabbits, guinea pigs. Definitely no cat or dog waste (toxic).
- Kitchen waste such as fruit and vegetable peelings. No cooked food, meat, fish, dairy or bread. They encourage vermin.



Possible problems

• Too wet/ dry – add browns/greens as appropriate. Too wet often turns the compost anaerobic – add browns and fork over to introduce more air.

How to use compost

- When you prepare the ground for planting, compost provides nutrients and improves soil.
- Sieved compost added to leaf mould makes a very good medium for planting seeds.



Idea 1: Making a 'composting station' is really easily done with wooden pallets fastened together to create bays. The idea being that you can make compost in one bay and then turn (fork) it over into the next bay. By 'turning' you are aerating (giving oxygen) to the compost and helping to speed up the decomposition process. Two bays are ideal for any school allotment, but you can add more if you think you have lots of organic matter to turn into soil! Above is a composting station built at Diss High School.

Idea 2: 'Compost Tea' being made at Reepham High School & College. Compost tea is often made by drowning nettles in water. After a few weeks this will start to get very smelly as the water helps the nettles to decompose. Compost tea forms a liquid fertiliser for hungry plants like runner beans, squash, courgette and cucumber plants.

Idea 3: Clearly labelling areas of a school allotment is incredibly important. It also helps young people know what's going on and can help spark questions too!

Idea 4: Don't make a compost area too big as it becomes unmanageable to use & get access to!

