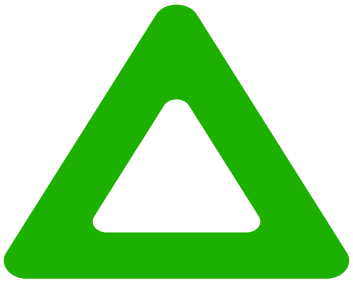
What is Composting?

Making compost involves **the decomposition of plants by micro-organisms. The triangle shows the essential materials required in this process.**

Water
without this decomposition cannot work

Browns - woody materials, perennials (carbon-rich)

Air (oxygen)



Greens - annuals, leafy material (nitrogen-rich)

Where to start

Get initial instruction about what needs to be done and where.

The compost bays are numbered. Compost heaps are initially built in the outermost i.e. 1 or 5.

How to start

Gather separate piles of Brown and Green materials close to the bin you will be filling. Shred any larger, dense or coarse items e.g. brassica stumps, root balls, bean plants, apples, using shears.
Browns: Dry scythed grass; Twigs < 1cm diameter and < 30cm length. Exclude thorny stuff.
Greens: Exclude pernicious weeds e.g. nettle, bindweed, couch grass, dandelions, dock etc.
(Put excluded material in the drowning bins marked with a green label, behind the compost bays).

Have water to hand (hose or cans). Find out if there's any farmyard manure available; if not, use a small quantity of immature compost from another heap.

Build the heap with alternating layers of Browns and Greens about 10-12 cm deep. After each Brown layer add water. The quantity will depend on how dry/wet the materials are. You are aiming for a mix which when squeezed in the hand, will feel damp, but not yield running water. Continue building until all the materials have been used. Cover and leave to start decomposing.

When rapid decomposition is taking place, the heap will heat up significantly. This is what we aim for. The heat is caused by millions of beneficial micro-organisms feeding on the compost materials and starting to decompose them. During this process, the heap shrinks rapidly.

As the nitrogen and sugars in the vegetation become used up by the micro-organisms, their reproduction slows down and the heap cools down.

Turning of the heaps

After the initial rapid decomposition period is over, each heap is turned into the next bay toward the centre i.e. 2 or 4. If available, further green material is incorporated as the heap is turned. The new heaps should heat up and then cool as before.

Lastly turn heaps in 2 & 4 into bay 3. Cover and leave to mature. Worms and other invertebrates will move into the heap to continue the decomposition process by feeding on the compost.

NB Plant materials suspected of being diseased e.g potatoes or tomatoes affected by blight, onions with white rot, onions or leeks with rust must be excluded from the composting process.

NB Winter prunings from fruit trees should be burned, in case they are harbouring pests/diseases. Soft, leafy summer prunings can be cut short and composted.

The Drowning Bins

The **Drowning Bins** are a row of dustbins behind the compost bays. They are used to kill, by drowning, any weeds that are likely to survive rather than be killed by the normal composting process.

Why do we need them?

If certain plant materials are included in the compost heaps there's a strong likelihood that they won't be killed by the composting process and will regrow wherever the finished compost is used in future. This increases the time/effort required for weeding. Two categories of material must be excluded from the compost heaps for this reason.

1 **Pernicious weeds**

These are plants such as **nettle, bindweed, couch and other grasses, dandelion, dock, potato tubers** etc.

These species have very resilient roots that are not killed by the composting process, so will regrow and spread, increasing the time/effort needed for weeding.

2 **Any plants in the process of developing seeds**

These are often annuals which go to seed quickly, such as groundsel, borage, Good King Henry, annual grasses. **NB** This group also includes plants that have been grown intentionally in the allotment, such as spinach, brassicas, tomatoes, nasturtium etc. - even Buddleia prunings after the shrubs have flowered. Incorporating the seed heads of such plants releases thousands of seeds into the compost heaps, many of which may not be killed, unless the compost heats up very efficiently.

How do the Drowning Bins work?

The Drowning Process takes many months - often up to a year - so it's important that once a bin full of weeds is immersed in water, we monitor how long it has been in the drowning phase. We can't do this, if new weeds are added once the process has started.

Each Drowning Bin should have either a Green or a Red Label attached.

- a **Green** label indicates that the bin is still accepting material for drowning
- a **Red** label indicates that no more material should be added as drowning is in process.

As materials in the target groups 1 & 2 above are weeded out of the allotments and/or orchard, find a Drowning Bin with a Green label and dispose of them there. Please never put them in a bin with a Red label.

As space in the drowning bins is in short supply from late spring to autumn, it can be useful if the 'dangerous' parts of the plant e.g. flowers, seed heads, roots are removed, if practical, and put in the Drowning Bins, the rest of the plant going on the compost heaps.

If in doubt, please ask.

Once the drowning process is complete, the contents, both liquid and solid can be incorporated in the building of a new compost heap. This way, the nutrients in the drowned materials can be recycled, via the finished compost. The Red label is exchanged for a Green one indicating that the bin can be refilled.

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