

20 Making Compost 2

Recording and monitoring

As each heap is made it should be given an identity code, that stays with it throughout its life, so that progress can be monitored.

The code could be written on a label that is stuck into the heap, or on a wooden block that can be hooked onto the front of a compost bin. When the heap is moved, the label goes with it.

In the initial stages of a hot composting heap, the rise and fall in temperature is a measure of progress – so it is worth monitoring the temperature, especially over the first few weeks. If the temperature fails to rise, or does not rise again after turning, this is a fair indication that some factor, other than oxygen, is limiting. It may also be useful to know that temperatures have been high enough to kill weed seeds and pathogens.

A heap's temperature can be recorded using a soil thermometer, or simply by thrusting a metal bar into the heap for a few minutes. If the hot end cannot be held comfortably for more than three seconds, the heap is over 50°C. Several projects have found difficulty with thermometers breaking or going missing – but find they are able, with experience, to gauge a heap's performance simply by feel.

Turning compost

The term 'turning' compost simply means remixing the ingredients of an existing compost heap, so that, as far as possible, the outside becomes the inside, and vice versa.

Benefits of turning

- Ensures that all ingredients have a period in the hot moist centre of the heap, to kill weed seeds and diseases
- Reintroduces more air into the heap, to keep the aerobic bacteria at work
- Provides an opportunity to check how the heap is progressing; dry areas can be watered; soggy areas can be teased out and mixed with drier ingredients – or dry and wet heaps can be combined
- Helps to dry out wet heaps
- Makes infestation by rats less likely; they do not like the disturbance

When to turn

A heap is usually turned when it begins to cool down, or when it drops to 50°C or below. Turning can be repeated several times, until it no longer results in a rise in temperature. The Seagull project turn their compost every two weeks, using a powered machine (see below), making a batch of compost in six weeks in summer. Others turn once a week, once a month, or never! Not turning a heap is not the end of

the world – composting will be slower, and you will not know if there are dry or soggy areas in it – but much less work will be involved.

Cool heaps may also benefit by being turned once or twice – to ensure good mixing and to check progress.

How to turn

The simplest method of turning is to fork the contents of one compost bin into an adjacent bin – putting top to bottom, and outside to inside. A manure fork with pointed, curved tines is best for this. As the volume of a compost heap decreases over time, the contents of two bins can be amalgamated into one. In this way the compost can gradually be moved down a row of compost bins towards the bagging point.

Free-standing heaps and windrows can be turned using a front end loader or bucket on a tractor.

The Seagull project uses a powered rotating Trommel drum screen or “rumbler” designed for separating sand and gravel, and purchased for £50. Compost from one bay is shovelled into the drum – which mixes the materials, breaks them up, and adds oxygen. It is then forked into the next bay. Chagford have a hand powered machine of similar design.

Curing and maturing

Once the high temperature composting phase is over, the compost will no longer re-heat when turned. The process slows down and oxygen consumption is much lower. This stage is known as the curing or maturing phase and it should last around one to three months. It provides a safety net, overcoming any shortcomings in the composting process, and reducing the dangers of an immature compost being sold.

During the curing phase, resistant materials will continue to decompose, the pH will move towards neutral, and the compost will be recolonised by soil micro-organisms which can give the compost disease-suppressing qualities.

Trouble shooting guide

Heap doesn't heat

Reasons: Too dry, too wet, mixture too woody, pile too small.

Remedies: Add water / wet ingredients, add dry ingredients, add fresh green material, increase heap size, or just leave it as a cool heap.

Heap fails to compost

Reasons and remedies as above.

Ammonia smells from heap

Reasons: Heap too hot, too much nitrogen-rich material, pH over 8.

Remedies: Turn heap, soak if dry, add woody materials, don't add lime to heap.

Compost texture not uniform

Reasons: Poor mixing, insufficient turning, large tough items in initial heap.

Remedies: Sieve compost, improve initial mixing, turn more often, shred raw materials, leave to compost further.

Flies a problem

Reasons: Fresh manure or food scraps accessible to flies.

Remedies: Turn heaps regularly, don't store food scraps.

Rats visit heaps

Reasons: Rats endemic in area.

Remedies: Rat control in area, turn heaps regularly, use a rat-proof container.

Other relevant cards

- What Can I Compost?
- Case Studies