

Experts home composting

# Quickstart Guide to Successful Composting



# A quickstart guide on successful composting

Good composting ensures sufficient aeration and thus prevents bad odours. Oxygen-loving (aerobic) bacteria and fungi are largely responsible for the decomposition and conversion of organic matter into new humus. Structural material (coarse, dry organic components, e.g. wood chippings) and some soil or sieved coarse compost material should be mixed into the compost to ensure that there is sufficient oxygen in the compost material. A lack of oxygen will firstly lead to putrefaction with the associated unpleasant odour, emissions of greenhouse gases and to poorer quality.



## Space and location

A composting area can be set up in any garden, even on a balcony. To ensure that the area is used, it should be located close to the waste, i.e. easily accessible from the kitchen - even in bad weather and in winter. To ensure that it is not too exposed to the weather, the compost area should be set up in a semi-shaded and wind-protected location.

The amount of space required depends on the size of the household and garden as well as the eating habits. For a household of four people, approx. 6 to 10 m<sup>2</sup> should be set aside for the composting area. The more space available, the easier it is to work. If space is limited, you can also compost on a balcony or in the cellar.

## The Methods

### 1. Garden Windrow

The size of a garden windrow depends primarily on the amount of material produced. The following rules can be used as a guide for a windrow in a domestic garden. The windrow should be about one and a half meters wide at the base and no more than one meter high overall. Its length varies, as the new material is piled up on one narrow side and the finished compost is removed from the other. The finished windrow tapers towards the top. How much depends on the amount of precipitation. In areas with a lot of precipitation, it can taper towards the top; in areas with little precipitation, it should have the shape of a flat mound.



### 2. Wire mesh composter

The wire mesh composter is well suited for small gardens because as it requires only a footprint of around one square meter. They can be fitted with punctuated plastic composting bag for added material retention and a rain hood to keep unwanted precipitation out.



### 3. Wooden slats composter

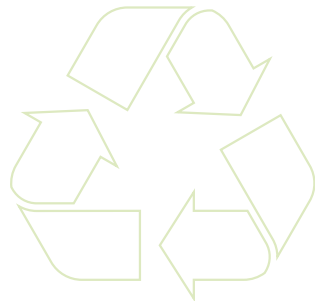
The slatted composter is well suited for small gardens because the most common models only require a footprint of around one square meter. Models where the slats can be removed on one side make it easier to move the compost. It is important that the slats are made of wood that is difficult to rot, e.g. larch wood. If the slats are to be treated against rotting, care should be taken to ensure that the agents used do not damage the soil organisms.



### 4. Rapid composter / Thermocomposter

Even the smallest garden has space for a compact, so-called rapid composter. Most of them have a lid. This keeps the odours inside and at the same time protects the compost from too much moisture and weed seeds. Some models have lockable flaps in the base that can be used to remove small quantities of finished compost.

However, the quick composters do not quite live up to their name. Some models are lined with polystyrene on the inside. This reduces heat loss through the walls. However, this thermal insulation rarely results in a significant increase in temperature in the compost. This is because the quick composters only hold a small volume overall and are usually filled with small amounts of waste at short intervals. This means that little heat develops inside the compost. The rotting process in these composters is usually no faster than in others.



### 5. Bokashi

The word “Bokashi” comes from the Japanese and means something like “fermented material”. The Bokashi system is therefore not composting, but an anaerobic lactic acid fermentation in which the organic material is pre-fermented and stabilized by the low pH. This corresponds to ensiling. Bokashis are inoculated with a starter culture of microorganisms (mainly lactic acid bacteria, also known as effective microorganisms), often together with mature compost. In a second step, the so-called “humification” takes place, which corresponds more to an aerobic composting. Preparation: Organic waste is shredded to a maximum length of 5-7 cm, placed in the Bokashi bucket and sprayed with the organism mixture. Once the Bokashi bucket is full, it is sealed airtight and left to stand for 6 weeks. Then the material is mixed with compost or humus in a ratio of 1 to 4 and left for a further 3 months with occasional turning in a bin. Only then the material can be used as fertilizer for your garden. Important, never use the contents of the bokashi bucket directly to fertilize your plants, flowers or vegetables because it will harm them.



### What can and cannot go in the compost:

**Yes:** Fruit and vegetable waste, kitchen waste such as eggshells, fruit stones, coffee grounds, paper based compostable coffee capsules, tea leaves, small animal manure (only from herbivores) including feathers, straw, hay and sawdust, palm leaf dishes. Loose plant garden waste such as balcony and potted plants, leaves, fallen fruit, lawn and meadow cuttings, cut flowers, perennials from flowers and vegetables, shrub and tree cuttings. Food scraps, including cooked meat: Food scraps can be pureed and added to the compost, provided the compost bin has already been tried and tested over several months and the freshly added materials are consistently mixed in each time and covered again with some structural material or a soil/chaff mixture.

**No:** Disease-infested plants, cigarette butts, ashes, vacuum cleaner bags, paper diapers, cat sand, large quantities of animal excrement, oils and fats in large quantities, heavily seeding or rooting weeds, raw meat, animal carcasses, bio plastics, bio-degradable plastics



Legislation on composting and anaerobic digestion - BAFU

## Collecting the material

Kitchen waste can be collected in the kitchen in a plastic container with a lid or outdoors in an open container before being put into the compost. Containers with lids make sense, otherwise flies, for example, will lay their eggs in the compost material. In addition, the waste should not be stored in the collection container for too long, as moulds and putrefactive pathogens quickly colonize. Collection containers in the kitchen should therefore be emptied daily or at least regularly every few days and thoroughly rinsed out if necessary. Collecting the compost materials - including garden waste - has the advantage that larger quantities of material are always put together in this way, thus improving the self-heating of the compost. Ultimately, this also shortens the rotting time.

## Observe the basic rules:

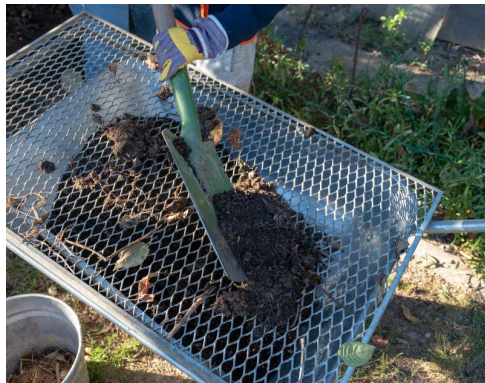
- **Shredding/Cutting:** Shred or cut organic residues to at least finger length, like banana peels, garden cuttings, tea bags, paper-based coffee capsules.
- **Mixing:** Mix moist, nutrient-rich, coloured waste such as lawn clippings or garden debris with an equal volume of dry, coarse material such as wood chippings and add some stone meal, screenings from previous compost or clayey soil. Do this, whenever you add something new.
- **Keep moist:** The compost mixture in the container or on the roller should always be as moist as a squeezed sponge. Water if necessary, but prevent it from getting too wet.

- **Cover:** Always cover the container or windrow with compost fleece or a suitable "roof".
- **Location:** The composting area should be semi-shaded and sheltered from the wind.
- **To avoid disputes with other residents and neighbours,** the composting area should be a sufficient distance from both the property and the property boundary.
- **Turning:** When turning, the material is sieved, and the compost is freshly placed. The more often the heap is turned, the faster the rotting process will take place. In domestic gardens, turning twice a year is usually sufficient.

## Harvesting and using the compost:

Compost is normally mature after 6-12 months. Signs: Compost worms have moved out; compost is crumbly and fragrant.

Sieve unrotted pieces of wood from mature compost, spread the compost in spring and fall in moderation. Recommended dosage: Max. 3 litres/m<sup>2</sup> per year.



## Troubleshooting for composting

### Dry Compost

Compost that is too dry often has a greyish-white mould coating and smells of fungi. In this case, there are often numerous and almost exclusively woodlice present. In many cases, too much dry material such as leaves, or garden cuttings has been added to the compost. This can be remedied by turning or adding moist waste or water.

### Bad Odor

If the compost smells, an anaerobic digestion process has started because the air supply was too low. Some garden cuttings and/or inoculated compost can be added to the material. The material is then mixed well and loosely placed on top.

### Fruit flies

The small flies find a richly laid table in the collection grid, as they feed mainly on overripe fruit. In summer, the waste can be covered with a little garden soil or mature compost. Adding rock flour also reduces the number of flies.

### Source:

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