Kompostierfibel

With this composting primer, we would like to continue to give every garden fan a lot of joy with the most beautiful leisure - gardening. The composting primer is a guide to beautifying your garden with magnificent plants and healthy vegetables. If you make your own fertilizer yourself, you know exactly what you are spreading on your garden soil.

What does the dictionary actually say?

Composting is the aerobic decomposition of animal and vegetable waste into nutrient humus. The word derives from the Latin ´**compositum**´, which means "composite". Since the beginning of life, nature has introduced and perfected this sophisticated recycling process.

What is your advantage?

A lot of leaf and cutting waste is generated in gardens. The balcony plants and a lot of kitchen waste are also organic material. Furnace ash (only from natural wood), on the other hand, consists of the minerals of burnt organic matter. This matter may be given in small quantities in the compost.

This waste can be quickly turned into fertilizer. This conversion is carried out by millions of soil organisms and microorganisms. They process organic waste in such a way that the nutrients bound in the waste are made available to the plants as a slow-acting fertilizer.

As nobody has the time and space that previous generations of gardeners and farmers had, and waste disposal becoming increasingly expensive, composting in your own garden offers tremendous benefits:

- Composting reduces your waste, because disposing of organic waste costs (your) extra money. In addition, landfills and the environment would be harmed.

- Composting is easier on your purse because you can produce organic fertilizer yourself.

- Composting promotes soil organisms and all other animals that live on them.

- Compost protects your garden soil from acidification, extreme differences such as heat or siltation.

• Compost as fertilizer: The organic substance stores moisture and releases it again like a sponge. This saves you a lot of water for watering the plants.

• Your plants gain a vegetation advantage since humus-rich soil warms up quickly.

• You save a lot of time because weeding does not have to be done as often.

• If you use compost instead of peat as an organic fertilizer, you are doing active environmental protection even twice, because this also preserves moorland and biotopes.

• At the same time, you protect the environment, because remaplan's composters are made from recycled plastics and valuable raw materials are put to good purpose again.

What is the right way to compost?

Our practical tips for your practice:

1. Where is the best place?

A partially shaded location is ideal. Three things are particularly important for a good fertilizer:
moisture, oxygen and heat.

Place the composter in direct contact with the naturally grown,water-permeable soil. Only in this way can all essential soil organisms and microorganisms (earthworms, beetles, insects, protozoa,isopods, centipedes, algae, fungi, etc.) do their work unhindered. This biological activity by flora and fauna is very important because it breaks down the nutrients (nitrogen, potassium, phosphate, magnesium, etc.) present in the organic waste in such a way that they are later also available to the plants in organic form. If the composter is sheltered from the wind in partial shade, the well-balanced moisture is retained for a long time. A place in full shade delays rotting due to too much moisture and lack of warmth.

Make sure there is sufficient distance to the neighboring property (should be at least 50 cm) and that you have enough space for your work around the composter.

2. What goes in the compost bin?

The following are easily compostable: flower, fruit and vegetable leftovers, leaves, tree, bush and hedge trimmings, coffee and tea grounds (with filter), sawdust and wood shavings, small amounts of unbleached newspaper, cardboard and paper towels, spent potting soil and ash. Beech or walnut leaves contain many tannins and decompose very slowly. You should therefore mix the leaves with other green waste. Even yew or holly branches can be added to the compost, as the poison breaks down during the rotting process.
Somewhat more complex organic waste is small animal manure, feathers and hair, peels from unsprayed tropical fruits, tree bark and small amounts of conifer needles (e.g. Christmas tree). Plants infested with animal pests can also be composted. Many fungal diseases and their spores die off in the compost. Root weeds, e.g. goutweed, don't stand a chance in the compost if they have been exposed to the blazing sun for 3 - 4 days beforehand and have dried out.
Alternatively, you could even eliminate problem herbs in order to feed them into the natural cycle. Egg shells (crushed) only rot when organic acids dissolve the lime in the compost. **“The mix” is what counts!**

What should *NOT* be in the compost?

Glass, metal, plastic, paint and varnish, solvents, art prints, batteries, debris and vacuum cleaner bags, leather, meat and fish waste, cooked or salted leftovers, sausage and bones (attract rats and mice!), faeces and diapers, and impregnated wood. Cigarette and charcoal ash is unfortunately often contaminated with heavy metals and therefore does not belong in the compost. Paper and cardboard are often found in large quantities in the household, so that not all of them can be composted. Leftovers can be easily disposed of with the waste paper collection.
This protects the environment thanks to paper recycling. Spores from a few fungal diseases actually survive composting. You should therefore dispose of the following diseased plants in the household waste: raspberries with cane disease, fruit tree prunings with fire blight, branches with red pustule disease on living wood, tomatoes with late blight, potatoes with tuber blight, cabbage stalks with clubroot.

3. How is the compost mixed?

It is optimal if the first layer when filling the composter consists of structuring, coarse material (chopped branches). This means that air can circulate right from the start and seepage water can drain away. Many municipalities offer their citizens a cheap shredding service. In order to counter any problems that may arise later, the compost material should only be applied in thin layers and always mixed well (moist with dry, coarse with fine, brown with green material). Coarse and dry material and shrub pruning ensure good ventilation. Fresh oxygen flows into the compost through these loose layers, and the unrotted materials are quickly processed. Always place problem waste (seeds, weeds, weeds, etc.) in the middle, as this is where the greatest heat is

generated to kill germs and fungi. During composting, even the plant's own toxins and chemical pesticides are broken down.

If you have to turn over the compost - despite the container being closed - the composting did not run optimally. You can recognize good, mature compost by the fact that it gives off drops of water when it is pressed out and smells like forest soil. If you want to speed up the start of composting, mix in garden soil or already mature compost with your organic waste. It is ideal to start filling the composter in the spring. A lot of material accumulates here, which quickly decomposes over the summer. All of the compostable organic waste is now continuously “deposited” in the composter. Nature does the rest by itself.

Additives: If the compost is properly processed, no additives are generally required. However, if the compost is a bit too dry (rotting is then reduced) you can use ground clay, which binds the moisture. If the compost is too wet, we recommend mixing it up with crumpled up newspaper (unbleached paper everywhere in Germany and the printing ink is free of harmful substances) or cardboard (empty egg boxes are ideal) or fine (untreated) wood shavings. If rotting or an unpleasant smell develops due to excessive moisture, then you can remedy this with primary rock flour, which also improves the structure by avoiding nitrogen losses and protecting other valuable substances from being washed out. Algae lime (Algomin) provides additional valuable nutrients and trace elements. Liming the compost is a tried and tested remedy if the compost has become overly acidic due to insufficient aeration. Lime intercepts acids and has a basic effect on the soil. In Europe, this alkaline soil is dominant and flora and fauna have adapted. Lime ensures a crumbly structure of the soil and a good digestion of trace elements. Although many types of lime are commercially available, organic gardeners swear by algae lime. The trade also offers you aids such as compost accelerators. These usually contain various mineral additives, act like a buffer and can regulate nutrients and moisture. Some also contain soil-dwelling strains of fungi and bacteria to get you off to a quick start. Rock dust has a similarly improving effect.

4. Is lawn clipping causing problems?

You have large quantities of lawn clippings in the summer months. On average, more than one liter of clippings is produced per square meter of lawn. If this nutrient-rich and, above all, moist material suddenly gets into the composter, the fine clippings collapse into an airtight layer, which then does not rot straight away, but ferments. For this reason, lawn clippings should first dry out a little and be intensively mixed with coarse and nutrient-poor substances. Please avoid that the first layer in the composter consists of grass clippings. The pressure of the following waste could sink together to form an airtight and watertight layer and delay rotting. If there is a large amount of grass clippings, this can also be used for mulching (e.g. tree discs, bushes). If you mow frequently, then simply leave the cut in between. You can also use it to fertilize your lawn. Leaves (e.g. oak, walnut, needles, chestnut), which do not decompose quickly due to the high tannin content, can also be prepared with the lawn mower without a shredder and added to the compost material after being mixed well.

5. Why is balanced moisture important?

For a successful composting, four substances are primarily decisive, two of which should be in balance: air and water as well as carbon and nitrogen. All four have a significant influence on the living conditions of the microorganisms, and the type and extent of the conversion processes depend on their activity. A commonly used word is the C/N value. Carbon (C) rich material is found in dry wood and cellulose (C/N 100 to over 500), nitrogen rich (N) material in proteinaceous, moist, green plant matter (low C/N 20-60). Both materials alone cause difficulties when composting: dry wood takes years to rot, wet material ferments due to the lack of air and produces foul-smelling fermentation gases. Mixing gives you a C/N ratio of 10:1 to 30:1, which is in favor of the carbon. This ratio is optimal. If the material is too dry, there is no rotting because the soil organisms reduce their activities. If the material is too moist, the composted material begins to rot and dry up in the absence of oxygen
stink. Above all, pure wood residues and straw are too dry. Grass clippings are often too wet if it rained the day before. Depending on the weather, rotting can be more difficult to control in compost heaps or open composters than in closed composters. It is best to use a closed composter, e.g. a Thermoquick® Express 400 or a Thermoquick® Express 600 from remaplan.The moisture in the compost can be regulated: If the compost is too dry, it produces dust easily, so watering it helps (but little, please). If it is too damp, small amounts of newspaper or cardboard, lime, clay minerals such as bentonite (cat litter), sawdust and chopped straw can absorb excess water. This will also prevent the compost from smelling foul.

6. When can the hummus be removed?

The compost warms up due to active soil life (edaphon), sufficient ventilation and the right (balanced) moisture. A remaplan closed composter is filled with fresh material (organic waste) can reach temperatures of over 45° C within a week. The temperature can rise to 70°C in the following weeks. That's why the remaplan composters are called "Thermoquick®" or "Thermo composters". The thermal conductivity of the recycled plastic softens stark contrasts between the outside air and the compost center and saves the complex technology of double-walled insulation. The increasing warming in the composters from remaplan, a sign of rapid multiplication of the "working" organisms, serves to kill harmful germs and some weed seeds.
In winter, composting is inevitably slower because many living beings retreat to deeper soil layers. The dormancy phase is a necessary process for the transformation of useful larvae into adults. The intrinsic heat that fungi and bacteria produce is concentrated in the middle of the compost in winter. To ensure that this compost does not freeze through, continuous feeding is possible and even necessary even in winter.

Depending on the weather conditions, which unfortunately cannot be specifically controlled in the garden either, your organic waste will turn into good compost in a closed composter from remaplan after about four to five months thanks to the optimal rotting conditions. You can easily remove this from below through the four generously created removal flaps of the remaplan composter. The mature compost has then already taken on the temperature of the environment. Apart from useful earthworms, you will usually not find any small creatures in this compost, because these have migrated to the upper layers with new, fresher compost material. The cress test shows you whether you can already use this compost as potting soil. Cress has the property of germinating very quickly, but also reacting sensitively to disturbances. If you now sow cress on some compost that you have removed, you will notice if your compost is ready (technical term: ripe) if it germinates quickly.

7. Where to put the finished compost?

If the cress does not germinate evenly (see tips, point 6: "Cress test"), the compost is not yet ripe. This raw compost can still be used for mulching or bed preparation as basic fertilization. The existing earthworms will form fertile humus in this soil (post-rotting). A layer 1 to 2 cm thick should be lightly raked in but not buried. Please do not apply compost in hot weather and bright sunshine. The sky should be a bit overcast so that the little animals get a chance to survive. If you do not need the removed compost immediately, or if the material has not yet completely decomposed, simply put it back on top of the compost in the container. This is a simple way to speed up the composting process, as well as when making new compost. The most valuable compost is completely rotted, short-fibred and dark, smelling spicy and fresh like a forest floor. Most of the time he is about a year old. This compost works best when applied to beds and/or lawns in spring. It is also ideal for planting in flower pots and balcony boxes and can even be mixed with sand or garden soil. Mature compost that has been formed after a few months to a year has more plant-available nutrients than compost that has been rotted for years (e.g. in a simple compost heap). All plants are particularly grateful for mature compost with a high nutrient content. A layer of about an inch of the mature compost should be worked quickly onto the beds, but not buried. The lawn can be optimally fertilized with thin doses of compost. Sprinkle the compost onto the lawn through a sieve. This is how you create the best possible effect. Compost usually reacts alkaline and should therefore not necessarily be made available in large quantities to bog plants. While these plants need the good structure of the compost, the lime content present will result in yellow rhododendron leaves. In autumn you can pile up the floribunda and bed roses with compost to promote their frost hardiness. The dark color of the mature compost causes the soil to warm up more quickly.

8. The right choice of compost bin?

Colour: green composters (all Thermoquick Express composters) blend in very harmoniously with the surroundings of the garden - green is the color of nature!

Size: Rapid rotting, wild seeds and weeds require a minimum temperature of 60° C. If the container is too small, the contents will cool down quickly; we recommend a minimum size of approx. 400 liters (Thermoquick Express® 400).

Soil: With good reason without soil, so that the micro-organisms necessary for rotting can get into the compost unhindered. A close-meshed wire netting placed under the composter prevents the intrusion of uninvited guests.