

Fertilising with fertilisers

Maintaining soil fertility

To ensure a fertile garden, you have to replenish the nutrients that have been used up.

Fertilisers in organic gardens

In an organic vegetable garden, it is best to use slow-acting fertilisers such as compost, green manure or mulch (see also the corresponding technical information sheets), which the soil organisms transform into soluble form before the plant absorbs them, because:

- they work continuously over a long period,
- unused nutrients remain fixed in the soil,
- there is no cheaper form of fertiliser than organic fertiliser.

Manure

- Manure is an organic fertiliser that is rich in nitrogen and trace elements.
- Fresh manure, especially poultry manure, has such a high nutrient content that it can burn plants and cause nutrients to leach out.
- Animal waste must be composted before being used as fertiliser. The composting process must take place without lime, because lime removes valuable nitrogen from the soil.
- In autumn, fresh manure should be spread in layers, but not fully incorporated into the soil.
- The smell of fresh manure attracts pests.

Liquid manure

Liquid manure is made from animal or vegetable waste, to which water is added. The liquid solution can be poured directly onto plants.



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Soil improvement

Natural mineral fertilisers

Along with artificial, water-soluble fertilisers, another option is natural mineral fertilisers based on salts or rocks. You should only use these fertilisers if the soil is lacking in potash, lime or phosphorus. Direct fertilisation with fertilisers containing potassium, magnesium and sulphur is rarely necessary for the type of clay and loam soils typically found in Luxembourg City. In most cases, the potash found in plant slurries, compost and wood ash is sufficient.

Thomas slag is a good choice for acidic soils (phosphoric acid, manganese, lime and many trace elements), while mineral phosphate is recommended for acidic to neutral soils. Acidic soils are not found in the sandstone part of Luxembourg City, but only in the limestone part in the southwest.

You can buy a test kit from a DIY or gardening store to determine the pH of your garden soil. A soil analysis can provide more precise information.



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How and when to fertilise

(assuming no acute symptoms of deficiency)

- Mixing fertiliser with compost: the effect is particularly harmonious as it is incorporated into the ongoing conversion processes,
- fertilise 2 to 4 weeks before planting,
- rake the fertiliser into the top layer as long as the soil is moist,
- never fully incorporate fertilisers into the soil, only rake them in – that is, “mix” them lightly with the soil to ensure a sufficient supply of oxygen for the decomposition process,
- in autumn, add some additional slow-acting fertilising products,
- even with natural fertilisers, over-fertilisation can lead to nutrient leaching and pollute groundwater.

Manure	Use	Comment
Fresh cattle manure, dry	In autumn, on the surface and as a thin layer on beds for plants with high nutrient requirements	Sprinkle with lime-free rock flour
Dry cattle manure	For roses, carrots and celery	Especially rich in potash
Horse manure	For warming up early garden beds, for professional use only	Hot fertiliser
Pig manure	For celery, leeks and raspberries	Cold manure, contains potash and nitrogen rather than lime
Sheep, goat and rabbit manure	For professional use	High nitrogen content, hot fertiliser
Poultry manure	Composted, mixed with soil or as slurry	It contains primarily phosphorus, but is also rich in potash and nitrogen; hot fertiliser, beware of burns

Composting and applying liquid or solid manure are all good eco-friendly options, but not all gardens are suited to this. Before going ahead, you must be sure that the smell of these substances and the visual appearance of their containers will not bother your neighbours. Keep this in mind when planning your garden!

