

No dig

CHARLES DOWDING 2023

Method

No dig is a simple and easy approach, based on two facets.

- 1 Soil is undisturbed, allowing its organisms to work and multiply. You build on top of the existing network of life. Occasionally you need to disturb soil by digging a hole to plant a tree, or when harvesting potatoes, but these are the exceptions.
- 2 Organisms are fed with organic matter on the surface. Nature works in this way and soil organisms are adapted to find food at the surface, from where they take it down.

Using any kind of compost, not necessarily perfect in texture, speeds up the process of feeding soil life, and boosts fertility. Sometimes this is referred to as 'feeding soil', but really we are feeding the life in soil.

Vegetable growing, whether no dig or tilling, works best when you can make some compost to use, probably also buy some when starting out. Any compost heap is both a shortcut, and a multiplication of natural processes. Using compost increases fertility quickly and gives speedy results, usually with fewer soil pests than if you use straw, hay or fresh woodchip.

Why it works

Plants feed as much through biology (fungi etc), as chemistry (nutrients/minerals).

No dig increases the ability of plants to find food which is already there. Undisturbed soils have existing networks of mycelia or fungi: some are mycorrhizal which team up with plant roots to help them find nutrients and moisture. In return, the roots excrete carbon, a key food for mycelia - they do not have other sources of nourishment.

At the opposite extreme to this is soil cultivation followed by using fertilisers. This locks gardeners and farmers into a need to keep applying feed.

At Homeacres in contrast, I use no fertiliser or feed at all. I spread one application of compost a year, unsieved. Around 2.5 cm / 1 in depth on all beds, and that's enough for two plantings a year.

On sandy and chalky soil, use double this amount.

Soil structure increases thanks to an organic substance in soil called glomalin, only discovered in 1996. It's the outer sheath of mycorrhizal hyphae. In their cycle of growth and decay, hyphae (mycelial threads) leave the glomalin behind, and it's a sticky substance which holds soil particles together as aggregates. Their varied size and the spaces between them allow water to pass through soil, with easy growth of plant roots.

Results

Speed of work, less time needed

Bed preparation is quick, just a light rake to level the surface before new sowing and planting.

And if you use sufficient compost (10cm) you can plant straight into a new bed on weeds. Even on the same day you created it, with perennial weeds still alive underneath.

- If starting with a mass of weeds, lay cardboard on them and 10-12 cm organic matter on it. keeping compost for the surface layer.

Ease of work

Weeds appear less, since their healing properties are not needed by healthy soil. You will be amazed!

Many other jobs become unnecessary:

- you don't need to worry about feeding plants in the ground (just feed container plants)
- watering is less
- plants stand up better with less need for staking, because no dig soil has a firm and yet open structure.

Productivity

No dig uses less compost than an equivalent area which is dug or tilled, for two reasons. No carbon is lost from cultivation, and active soil life increases plant roots' ability to find food.

I run a trial of two beds side-by-side, both 1.5 x 5 m / 5 x 16 ft, and they receive the same amount of compost every December. One of the beds I dig every winter, and it grows consistently less than the neighbouring no dig bed. In 2022, the harvests were dig bed 97kg, no dig bed 107kg.

Less need for rotation

Thanks to soil being super healthy, there is usually less disease and more nutrition. I run a trial where I grow plants of the same family every year, in the same ground.

2022 was the eighth consecutive year of potatoes, and the yield was higher than any of the previous years, 58kg from 8 m² / 128lb from 84ft², see [this page](#) of my website.

Relax

You can walk on your beds, thanks to soil's firm but open structure.

It's a misunderstanding that soil needs to be loose and soft for roots to grow. This is never the case in nature and plant roots easily travel through undisturbed soil when it's maintained in a good structure.

Thanks to organic matter on the surface, and not being disturbed.

Learn more on my [YouTube channel](#), and website <https://charlesdowding.co.uk/>