

No dig FAQ's

What is no dig?

Soil has structure already, but humans arrogantly presumes to 'improve' it. No dig leaves soil undisturbed, and you feed the masses of soil life with organic matter on the surface, as happens in nature, to maintain drainage and aeration.

No dig works on all soils including heavy clay.

No dig is not a religion, sometimes you need a spade, say to cut out bramble roots or make a hole for planting trees.

Starting out

1 Do I need to dig before starting no dig?

Apart from rare soils with pans, the answer is no. Often when starting you see plentiful growth of weeds, a sure sign of lively and fertile soil.

2 Does it matter if soil is hard/compacted?

No, because usually when people ask this they are referring to soil that has a natural firmness, or sometimes is hard just because it's dry. Truly-compacted soil is rare and you will know it by a smell of sulphur, plus water lying for a long time after rain. A one-off forking can help loosen this rare problem.

- Fluffy, loose soil holds less moisture and results in plants falling over: roots like firm soil.

3 How do I convert from dug soil to no dig?

Simply leave soil undisturbed, feed with a surface mulch and soil organisms will multiply to the advantage of your plants. More on this forum post.

4 Does soil 'need digging' after say 4-5 years of no dig?

No this is a myth and completely untrue. For example my garden at Lower Farm had it's best year in the horrible wet summer of 2012, when many growers and gardeners struggled even to get on their land, and that was its 15th consecutive year of no dig.

5 How do I plant a tree?

You dig a hole, just the size of the roots. Leave the adjacent soil undisturbed. Fill the hole with soil only, then mulch on top with any organic matter, to feed soil life and suppress weeds.

6 Do I need to fork to loosen the soil?

Another myth, from the misunderstanding that soil needs to be loose for plant roots to grow. It is manifestly untrue, yet it's a deep rooted belief! See my web page of Three Strip Trial results: the forked strip gives 5% less harvests.

Weeds

7 Can I hoe?

Light hoeing and raking is fine, usually the top 3cm/1in and through your surface mulch of compost.

Use a dibber or trowel to create holes for new plants.

8 Does no dig work to control marestail and other perennial weeds?

From the many reports I hear, gardeners who don't disturb soil have more success for less effort in reducing marestail (equisetum), compared to gardeners who dig.

In my experience, I have many times completely eradicated couch/twitch grass (*Elymus repens*) within a year. However it transpires that British couch grass is less vigorous than a few others, from what I am told by growers in New Zealand and parts of the USA, among others.

Whichever you have, mulching rather than attempting to dig out every root means soil grows it less. Why? If only soil could talk... like all organisms, it's happier when no disturbed, and weeds are part of its re-recovery mechanism, literally.

9 If I cover weeds with polythene, how do I know when they are dead?

Best method is to lift the polythene and check for recent growth: it will be white or pale yellow stems. If you see lots of them, best leave the polythene in place because weed roots still have sufficient reserves in their roots to continue growing.

10 Why does no dig mean less weeding?

Less weeds germinate in undisturbed soil, and compost mulches on the surface make it easy to pull weeds or to run a hoe through the surface.

Use in the first year only, light-excluding mulches such as cardboard and polythene, to kill perennial weeds. This saves much time, in year one and all subsequent years.

11 Does no dig need more organic matter than you need when digging?

Absolutely not, this is another myth and misunderstanding, perhaps because compost is visible on top, rather than dug in. Old gardeners who changed to no dig in the 1940s (FC King and A Guest) found they needed less compost.

- I emphasise that to grow healthy and abundant vegetables, soil needs feeding with organic matter, whether you dig or not. This is not a new finding, but has been often forgotten from a reliance on synthetic fertilisers, which feed plants yet often harm soil organisms such as fungi.

12 Can I add roots of perennial weeds to my compost heap?

Oh yes you can, and I know this contradicts much "official" advice, but these roots are not ever-living. Even in a cool compost heap, as long as new ingredients are added before any new shoots can find light, they run out of energy and expire. In a heap with some heat, they die more quickly.

- At Homeacres when I arrived in winter of 2012/13, there were many roots of bindweed, couch, nettles, buttercups and docks going into the compost heap, where we had been clearing weeds off concrete paths etc. The heap never went above 40C/104F and all those roots disappeared.

Result: saving of time and more nutrients in the compost.

13 How do I stop grass invading my plot?

You need to edge, with long handled shears and/or a half moon edger, helped by mowing regularly if possible. Grass and weeds will love to grow into your fertile ground. Cardboard along an edge is a good first step in keeping it tidy.

Mulches

14 Which organic matter is best?

Compost is the easiest and most productive mulch, and it's worth buying if you can't make enough, for the time it saves you and the extra harvests. The initial dose may be high, to suppress weeds and save a huge amount of time in years to come. If you count your time at minimum wage level, the compost will soon be paid for.

Old compost is best, say 8 months for homemade, 1-2 years for animal manure. Buy green waste compost before you need it, when possible, so it finishes fermenting in a heap.

15 Can beds be filled with soil?

I advise not, unless you are fortunate enough to have healthy and unneeded soil, which is rare. Soils you can buy are often "dead", from being stacked for long enough to kill all the microbes needed for growth. This was discovered by Professor Victor Stewart (Aberyswyth Uni.) in the 1970s and '80s. He worked with the National Coal Board to discover why farms became so

unproductive, after they had scraped off soil to extract coal, in opencast mines, and then replaced the same soil. See Q 33.

16 Is there a specific order adding materials when I make a no dig bed?

Spread the least decomposed first, so it's at the bottom, and keep the finest compost for your top layer, to sow and plant into. An example for a bed of 6in/15cm depth would be first third of half-decomposed animal manure, second third of old but not perfect homemade compost, and the top third of multipurpose or mushroom or green waste compost. Firm the materials while adding them: if dry, walk on them.

17 Is no dig good for growing flowers?

Yes for sure. In the UK there are now huge numbers of no dig flower growers. Sometimes it's claimed that "compost is too rich for flower growing", but that is another myth. When I gave a talk to 150 flower growers, over half of whom are already no dig, I never heard a comment about beds being too rich for flowers, in fact it was praise all round. Adding compost is not akin to adding lots of fertiliser, see Compost section below.

Scale

18 Can no dig work on a farm scale?

Yes and it's called no till, using different methods for areas above 0.5ha/1.25 acres. Perhaps use more polythene mulches/tarps, and for less intensive veg (cabbage, potato, onion, squash) see the work of Richard Perkins at Ridgedale Farm in Sweden.

In the 1980s I cropped 3 ha/7.5 acres by 1987. I used less compost than at Homeacres, and cropped less intensively with less second plantings.

See Organic Blooms in Late near Bristol, 9 acres/3.7ha no dig beds, and Oxtons Organics near Worcester, growing on a larger scale than here.

19 Does no dig mean a loss of yield?

No, the trials I run suggest the opposite. The same areas of dig and no dig over 12 years (2007-18) have given 943.65kg (2080lb) from the dig beds, and 1027.61kg (2265lb) of same plantings from the no dig beds, at Lower Farm then Homeacres, six years in each garden.

Harvests over six years at Homeacres are 567.1kg (1250lb) dig bed and 623.8kg (1375lb) no dig bed, from the same plantings in each bed.

20 Why does no dig mean you need a smaller area?

Soil is healthier so growth is stronger, plus it's quick to replant in summer for a second crop, which makes it more worthwhile to concentrate compost on a smaller area and at a greater depth, say 3-5cm/1-2in each year.

Cropping a smaller area saves time weeding, watering and protecting from pests.

21 When is best time to apply compost?

Any time is possible except when ground is full of crops. Say from when a last harvest is taken in autumn, to when winter crops are cleared in spring. Compost is not fertiliser and contains most nutrients in a water-insoluble form, hence the success of applying compost in autumn, then leaving beds to weather, which encourages lumps to soften. I never cover beds in winter apart from mulching with compost....

22 Do I need to cover beds with polythene in winter?

Only if you have a major weed problem and want to kill them using light-excluding mulches. Otherwise, compost is the mulch, rain can wash through and its nutrients are retained. They are released as and when plant roots ask for them, when temperatures are correct, through soil organisms such as mycorrhizal fungi and more.

Compost and manure

23 Can I sow and plant into compost?

Yes, people actually ask this! Perhaps from misunderstanding the word, which here means well-decomposed organic matter, created from:

- garden and kitchen wastes
- animal manure
- purchased materials such as mushroom compost
- two to three year old wood chip, bark and leaves, etc.

24 Does compost burn leaves of young or other plants, or harm tree trunks?

I wonder where this question comes from: if you were silly enough to plant into say fresh chicken manure, or compost that was still 60C/130F when spread, plants will grow poorly. In my experience and the experience of everyone I speak to who uses mature compost, including half rotted manure, plants are fine. I have never seen an issue with say trees or roses, where compost butts against their trunk or stem, although I have heard of it.

25 Does compost have to be homemade?

No!! even though the compost you make is often healthier and better for plants than what you buy. Few of us can make enough for the whole garden.

26 Which compost is best for propagating seedlings?

At Homeacres I buy potting compost for propagation. Sometimes this is called potting soil, just to confuse matters, and indeed John Innes composts do contain loam, which is soil! They are useful for filling beds but give variable results for seedlings, because they are a franchised recipe fabricated by different suppliers.

Check my videos on propagating seedlings.

27 How safe is bought manure?

Most is fine, except I would not use manure from battery farms because of cruelty and antibiotics etc. However there is an issue with a small percentage of horse manure.

- A few farmers spread a weedkiller based on aminopyralid, a poison which stays on hay and is excreted by the horse, then only decomposes when in contact with soil organisms. It harms legumes and solanums in particular. Therefore you can test for it's presence by sowing peas, beans or potatoes in horse manure before taking delivery.

If you have spread some which is causing problems, either you need to remove and dump it, or grow brassicas and sweetcorn for a year until it is decomposed.

28 Do I need to spread more compost or feeds before new plantings in summer?

Generally no although perhaps if your soil is light and sandy, and your winter mulch was light and has 'disappeared' into the soil by midsummer. However most of us can mulch just once a year, say in autumn, for two plantings through a whole year.

29 Do I need to grow green manures?

If you have plenty of spare soil, this is an option. But most allotmenters and gardeners do not have empty beds and it's more viable to use a little extra compost and double crop for example.

- There are issues with green manures: how to get rid of them, slugs accumulating underneath, and time lost in spring while they decompose. On the other hand, they are a way of bulking up the compost heap – if you have the space!

Layout and paths

29 Laying out a garden/plot, should beds and rows run north south?

No need for this unless your vegetables are mostly tall, and would shade beds on the non-sunny side. More important is to run beds up and down a slope if it's less than say 10%, so that compost and water do not fall into paths below, and to have entry point to paths where you need to access.

30 Is there a prescribed width for beds?

No, because with no dig you can put a foot on or even walk on beds, so they can be wider. I have some of 1.5 up to 1.8m/5-6ft, where there was not space for two beds of 1m/3.2ft + a path. and they crop well.

- Incidentally paths of 40-45cm/15-18in are good, and even be narrower when you have no wooden sides.

31 Do I need sides for beds?

Only if you like that, but having no sides saves money and reduces pest numbers, such as slugs and woodlice, because they have less habitat.

32 Do I need to mulch paths?

Any mulch is better than bare soil, paths included. Their cover protects and feeds soil life, while increasing crops through the extra fertility. Plants in beds root horizontally into paths – most roots are active near the surface.

- I cover paths before winter with a 2-3cm (no thicker) mulch of compost or pieces of small wood such as dust, shavings and small chips, preferably aged 6-12 months or more so that fungal breakdown has occurred.

Misc

33 My beds have no more room for compost. The current compost is at the very top of the raised bed lip. What do I do? (Forum question).

It sounds like the beds were filled originally with soil, or some soil.

Unlike compost, soil does not sink or settle.

So yes you may need to remove some.

Or remove the bed's sides, mulch paths with thick card if not weed free now, and pull some of the bed onto the path. making the bed a little wider in the process. You can walk on no dig beds.

34 Does a no dig garden rise up over the years of adding compost?

Less than you might imagine, because compost consolidates after being eaten and excreted by soil life, such that 2in/5cm becomes as little as a quarter of that over a year. It is denser and less fluffy and spread through soil. Therefore beds filled with compost can be topped up every year, to maintain their level.

Whereas beds filled with soil do not settle and it's then difficult to mulch/feed the soil every year, without overflow. If you have beds of soil, either scrape off a layer to replace with compost, or remove the wooden sides and make the bed edges sloping, having previously (if there are many weeds in the paths) laid two layers of thick cardboard on the paths.

35 Can I plant in wet weather?

Yes you can. This means you can work in any weather and not lose precious opportunities, say when plants need to go in. No dig is versatile, thanks to the soil preserving it's structure all the time:

- you can walk on paths in wet conditions to access beds
- for planting, you can dib holes in wet compost, or make holes with a trowel
- your boots stay clean, except for a bit of mulch material.

36 Do you need to remove all roots before replanting?

No, because old roots feed microbes and other soil life, as they decay. Better twist/rotate stems of broccoli, lettuce, spinach etc, which snaps off the roots close to a stem and causes less soil disturbance than when you pull upwards.

- If ever I have upheaved the soil at all, I walk on it to re-firm, before resowing and replanting. See my video for more on clearing and replanting.