



WATER WORKS

NO LONGER THE PRESERVE OF COMMERCIAL GROWERS, HYDROPONICS – A SOIL-LESS METHOD OF GROWING LEAFY VEG – IS MADE FOR URBAN EDIBLE-GARDENERS

Words: CLARE GOGERTY



You can always spot a frustrated gardener by the number of houseplants tumbling from bookshelves or the pots of supermarket herbs clustered on kitchen countertops. Growing veg can be tricky if you don't have a garden to cultivate or a sunny balcony to fill with tubs. Redemption for would-be urban gardeners, however, could lie with hydroponics, a controlled method of growing plants in water rather than soil.

Home hydroponic kits – basically souped-up gardening trays with LED lamps and watering systems – are now widely available, and come in compact and appealing designs that sit happily in contemporary kitchens (see next page). The absence of soil and ease of operation (basically, switch them on and leave them to it) mean that they are a mess-free and orderly way to grow veg indoors, even in shady corners.

Commercial food producers have led the charge with soil-free cultivation, albeit on a much grander scale. Hydroponics is a

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supremely controllable method of horticulture that is not affected by the vagaries of weather, sunlight, or what lies in the soil, but is instead governed by science. Plants are grown in an inert growing medium (one that contains no nutrients), such as perlite, rock wool or sand. Nutrients (principally nitrogen, phosphorous and potassium) are delivered to the roots via a fertiliser dissolved in water, and growth is boosted by artificial light. Plants grow bigger and faster because they don't have to seek out food – they can concentrate on growing leaves rather than root systems.

Richard Ballard and Steven Dring have put hydroponics to good purpose in their underground farm, Zero Carbon Food, 30 metres beneath Clapham North tube station in London. Here they grow salad leaves and micro greens in 33m of tunnels (a former bomb shelter) without natural light or soil but with »

- 1 Basil, thriving in a soil-free system.
- 2 Ikea's indoor garden in action.
- 3 Pea shoots grown in an Urban Cultivator system.
- 4 Farmshop in Hackney grows veg for its café

PHOTOGRAPHY: GAP PHOTOS



WHAT TO GROW

Stick to leafy salad veg and herbs for the best results. Which varieties you choose to grow will depend on the size of your growing system: the lights of the Ikea Indoor Gardening System, for example, are 30cm above the growing tray, so any plants that grow taller than that won't fit. Plant 1-3 seeds per plug, depending on the plant, and remember that different seeds germinate

at different rates. You should see plants with leaves big enough to eat after 5-7 weeks.
Cherry tomatoes
Small tomatoes often planted in containers will also suit hydroponic systems. 'Balconi Red', 'Bajaja' and 'Sweet 'n' Neat Cherry Red' are all nice and compact.
Chillies
Smaller varieties such as 'Krakatoa' and 'Basket of

Fire' will fit hydroponic systems best, but taller plants can be pinched out to encourage width rather than height.
Lettuce
Most varieties will flourish in a hydroponic system. Ones with looser leaves such as Lollo Rossa, Cos (red and green) and Butterhead varieties suit hydroponic cropping better than tightly packed ones like Iceberg.

Other leaves
Pick the leaves of spinach, rocket, pak choi, oriental mustard and garden cress when they are young for best flavour. They are often found together in salad leaves seed mixes.
Herbs
A handful of fresh herbs in snipping distance is a boon to any cook. Most thrive in hydroponic conditions: try basil, chives, coriander, mint parsley or lemon balm.



❶ Snipping coriander for a salad.
❷ Micro onions grown in...
❸ ... the Urban Cultivator, installed in a kitchen unit



LED lighting and nutrient-rich water. The constant temperature and the ability to measure and monitor crops means that the farm reliably produces acres of micro leaves and herbs, including micro wasabi, fennel and coriander. These end up in London restaurants, and home cooks can find them at Marks & Spencer, Whole Foods, Ocado or order via farmdrop.com.

Farmshop (farmlondon.weebly.com) is an urban farm located in what looks like an ordinary terraced house in Hackney, East London. Describing itself as 'an urban farming hub', it serves crops grown hydroponically and aquaponically* in its café and is part of a larger movement, the aim of which is to fill otherwise neglected plots in cities with farms producing fresh and sustainable food.

Similarly, in West Yorkshire, the Incredible Edible network, based in Todmorden

(incredible-edible-todmorden.co.uk), has created The Incredible Aqua Garden, a hydroponics and aquaponics garden that grows tomatoes, beans and herbs and salad.

If further proof that hydroponics has gone mainstream is needed, look no further than the newest branch of Veggie Pret in Exmouth Market, London, which has a hydroponic cabinet filled with sprouting herbs, conveniently placed to scatter on to salads or sprinkle in sandwiches.

Herbs are a good crop to start with if you are considering investing in a hydroponic system of your own. Not only can they be grown all year round but, once sown, can be left until they grow leafy and verdant, ready to be snipped and savoured, as fresh and flavoursome as you like. **S**

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WHAT YOU NEED

Although there is plenty of advice on how to build your own hydroponic systems on the internet, it is simpler and more effective to buy a ready-made version. Try one of these for size.

Krydda/Vaxer indoor growing cultivator

from £62.50

(one tier), ikea.com

Seeds are germinated in a propagator containing nutrient-rich plugs. When leaves appear, the plugs are transferred into plastic baskets filled with a gravelly pumice stone and suspended over water. Fertiliser is added to the water, the light is switched on and growing commences.

Grow Pod 2

£65, seedpantry.co.uk

A neat, easy-to-use automated system. All you do is fill the reservoir with water, sow seed in the growing medium, and switch it on. Its smart controller will tell you when you need to top up the water.

Countertop garden

£69.95-£249, by

AeroGarden

steamer.co.uk

In three different sizes, this comprises a tank filled with nutrient-rich water, pre-seeded pods, and an LED lighting system. A gourmet herb seed pod and other pods are available.

Urban cultivator

Prices vary

urbancultivator.net

Described as a 'fully automated kitchen garden', this is built into your kitchen units, creating an illuminated cupboard of microgreens. Custom-built to your specifications, so a little pricy.

*Aquaponics combines fish farming with hydroponics – tilapia fish swim in tanks beneath plants, their waste creating mineral-rich water to feed the plants.