

While many people may dream of a country idyll, the truth is that most of us now live in towns and cities. But this does not mean that the 85 percent of us in the UK who reside in urban areas have to endure nothing but bricks and mortar. Whether you live or work in Chelsea, Bradford or Wells, there are public parks and green spaces to enjoy. Moreover, even in built-up areas, up to a quarter of land consists of private gardens.

Following RHS-led urban-greening research (see panel, p62), it is now known that gardens play a crucial role in urban and suburban areas, and will continue to do so in the future under the effects of climate change. From helping protect us against flooding and from extremes of temperature to supporting wildlife and helping gardeners to be healthy, gardens can provide an amazing range of benefits. These benefits are within reach of anyone in a town or city with a garden or even space for a few containers – it just takes plants and a little environmental awareness. By following a few simple, practical steps, urban gardeners can reap the rewards, enhance their surroundings and help improve the environment.

Although many of us own a confined urban or suburban garden, it can be hard to see how and why there is a need to improve it just to help our local environment. Yet it really is about taking a few small steps for major gains. Whether you have room to plant a tree or time for a bit more composting, it can make a difference. After all, one person may only have a tiny garden, but when a street's worth of planting and good gardening practice is added together, the result is greater than the sum of the parts. And that result is greener and more pleasant places to live.

FOR THE GREATER GOOD

Gardeners in towns and cities can make a big difference by taking a few simple steps that will improve our environment

Author: **Leigh Hunt**, Principal Horticultural Advisor at RHS Garden Wisley and chair of the Society's Urban Greening Group



Plant and tree choice

Choosing the right plant for the right place is essential in urban greening. Correct location minimizes the amount of time spent tending and watering plants, while growing a wide range of plants will attract and shelter a greater diversity of wildlife to a garden.

Permeable paving

Hard standing (right) that allows rain to soak through is more attractive than a non-porous driveway, and helps reduce flood risks. Patio areas (centre) can be softened by planting between stones (also reducing runoff). Parking areas do not need to completely cover a space: keep wheel tracks to a minimum (far right).



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1 Plant choice

From covering brick walls to screening ugly views, it is possible to clothe your surroundings in plants. To get the most from the plants you grow, it is best to choose the right plant for the right place. For example, shade-tolerant *Epimedium* or *Bergenia* will thrive in dark, dry corners – unlike bedding such as pelargoniums, which need much more attention.

Choosing plants appropriate for their position can bring all-round savings: from time and money (you do not have to replace dead plants) to environmental benefits, such as less water needed to keep plants alive.

When selecting plants, also consider those that provide food and shelter for wildlife, as these will attract and support maximum biodiversity in your garden.

2 Planting trees

Trees often worry homeowners as they fear that the roots will cause damage to house and drains. While the wrong tree in the wrong place can cause problems, bear in mind all the good that trees do. They act like air-conditioning units by releasing moisture from their leaves, and provide shade – making our city temperatures more bearable in summer. Not only that, they provide homes, shelter and, in many cases, food for wildlife.

So to get the benefits, choose a slow-growing, more compact tree such as a *Sorbus* (rowan) or *Malus* (crab apple) and try to plant at least 4–5m (13–16½ft) away from the house. Plant them on the south or west side to provide cooling shade.

3 Garden materials for paving

Many front and back gardens need space to park a car and provide a patio. Traditional hard surfaces, such as tarmac, concrete and block pavers, are impervious, so when it rains the water runs off and can contribute to localised flooding. It is one of those collective problems in towns and cities: one driveway is not really a problem but, for example, 75 percent of new hard surfaces in Leeds in the last 33 years were due to residential paving.

The solution is to keep paving to a minimum and use only permeable materials (which, in England, is now a requirement by law for all front drives over 5sq m/54sq ft, unless you apply for planning permission). Porous surfacing materials include gravel and permeable brick pavers.

4 Wildlife and biodiversity

The concept of a 'wildlife garden' has been transformed in recent years. It is no longer thought imperative to have a patch of nettles: gardens of all sizes are now known to support a substantial range of wildlife – the average garden being home to more than 250 species.

The key to creating a good habitat is to grow a wide range of plants that will provide food and shelter for wildlife throughout the year. As well as flowering plants that attract pollinating insects, grow trees, hedges and berrying plants (see p55). As diverse as possible is recommended: ideally a mix of native and non-native trees and shrubs including both deciduous and evergreen plants. >>

GAP / JONATHAN BUCKLEY DESIGN HELEN YEMM

‘Gardens of all sizes are now known to support a substantial range of wildlife’



Gardening sustainably
Mulching plants (far left) helps the soil retain water. Attract bees (centre) and other pollinating insects by planting a wide range of flowering plants. Carefully targeted watering using a can (left) or hosepipe is best practice; preserve supplies by harvesting rainwater.

5 Role of lawns
Turf is a mixed blessing when it comes to environmental benefits. It soaks up rain (unlike hard surfaces); it offers a place for wildlife to forage for food such as worms; and, when green, it releases moisture and cools the air. However, lawn maintenance can come with a large carbon footprint and frequently, high water use. Petrol mowers, synthetic fertilisers and weedkillers, and watering to keep the sward green in summer are all environmentally and financially costly. Consider reducing these or using different mowing equipment (see panel, opposite). Alternatively, allow some of your lawn to grow into longer grass – or even replace it with permanent plantings of perennials and shrubs.

6 Composting and soil care
For the urban gardener, composting brings particular benefits. It is a way of dealing with garden waste that avoids the need to bag everything up and take it to your recycling centre (if your local authority does not collect it). The resulting compost is always a valuable

resource in a garden. Using it as a soil improver will help plants establish more quickly (and so need less watering), and applying a thick mulch of compost will suppress weeds and help minimise evaporation of soil moisture. As plants decompose, they release carbon; by incorporating compost into the ground, much of this carbon is stored by the soil for some time.

7 Using water wisely
Watering sensibly is high on the agenda in drought-stricken summers. However, good gardening should always aim to reduce water needs. Choose the right plants for the situation and provide them with just enough water to grow well. Other measures are fairly straightforward: improve the soil with garden compost so that it holds on to rain; water plants to wet the top 30cm (12in) of soil but no more as it just drains away from the roots; and try to supplement mains water where possible. Ways to do this include installing water butts and recycling grey water from washing-up and bathing (but do not use to irrigate edible crops). ●

More from the RHS For more information visit www.rhs.org.uk/urbangreening.
❖ Perfect for Pollinators: for insect-friendly plants enter ‘Pollinators’ in the search box.
❖ For ecological artist and RHS member Su Hurrell’s comments about ‘green credentials’ (News, August, p509), visit www.rhs.org.uk/thegarden



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Urban gardening – keep the pros and cons in balance



RHS / LEIGH HUNT

Tijana Blanusa, RHS Scientist (left) on the benefits of gardens: It is often said that gardens are a vital part of our towns and cities, yet where is the proof? The RHS Science Department was vexed that nothing brought together the disparate research to explain why urban gardens really are important. So, working with the Universities of Reading and Sheffield and the Horticultural Trades Association, we summarised all published scientific research from around the world. Our review, *Gardening matters: Urban greening*, showed the remarkable range and depth of benefits of gardens in urban areas – and revealed their negative aspects.

❖ Download the review via www.rhs.org.uk/urbangreening

Good things about gardening
❖ **Moderates urban temperature** Garden plants help cool the air by releasing moisture and providing shade, combating dangerous heat waves and potentially saving up to 30 per cent on the energy used for air conditioning.
❖ **Prevents flooding** Vegetation, whether lawns or borders, soaks up rainwater and so helps prevent flooding. The paving-over of front gardens is consistently found to contribute to localised (or ‘flash’) flooding.
❖ **Supports biodiversity** Gardens support a high level of biodiversity. Some species such as frogs, song thrushes and hedgehogs are now more abundant in urban gardens than in low-intensity farmland.
❖ **Benefits health** Gardens are good for our wellbeing: they are places to avoid or alleviate stress. Meanwhile, working on garden tasks improves physical fitness.

Avoiding the negatives
❖ **High carbon footprint** Whatever garden equipment you use, it will have a ‘carbon footprint’ or ‘carbon cost’. This refers to the amount of greenhouse gases (not just carbon dioxide) released during their manufacture and use. The higher their footprint or cost, the more they contribute to climate change.
❖ **Reduce your impact** It is worth considering which equipment you buy and use. Most tools have a footprint from manufacturing, so buying second-hand items such as spades and trowels can help.
❖ **Energy inefficient** The most useful labour-saving devices in the garden are power tools, such as mowers and trimmers, which often have inefficient motors, so choose models that are more energy efficient. Avoid using patio (open-air) heaters, and try barbecuing with locally-sourced charcoal to minimise impacts.

Urban gardens
Many town and city gardens are enclosed; traditionally, long narrow plots feature a patio, maximum lawn space and sparsely planted (or nonexistent) borders. To create an urban green space that is easier to maintain, has a lower carbon footprint and increased biodiversity, limit grassed areas, add trees and plant varied, deep borders.



Lawns
It is easy to think of lawns in urban areas as being only of benefit to the environment. Yet their ‘green’ credentials can be outweighed by the level of maintenance lawns need to keep them looking good – including mowing and chemical use – and the heavy watering they require during dry spells.



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