A VIEW FROM THE NURSERY

3–30–300: JUST NUMBERS OR A WAY FORWARD?

The 3–30–300 rule states that everyone should be able to see at least three mature trees from where they live, enjoy 30-per-cent canopy cover and live within 300 m of green space. But can it be practically applied?

BARCHAM Trees will annually ship approximately 60,000 containerised trees from the nursery for planting in the landscape. A large proportion of these trees will be sent to local authorities for planting in streets, parks and other publicly owned spaces.

It is impossible to state with any accuracy what percentage of the total market is occupied by Barcham Trees, but if a generous 10 per cent is applied it means that some 600,000 trees are supplied by nurseries in the UK and Europe to be planted in the UK landscape. It does not need a mathematician to play with the percentages, but whichever way the numbers are viewed, a considerable number of standard trees are planted each year.

Those numbers become even more thought-provoking if they are extrapolated over, say, a 10-year period with an assumed consistency of supply and planting. This would mean that some six million standard trees have been planted in the UK. It is always dangerous to speculate with figures, especially when the base numbers cannot be corroborated.

At this point, given the content of this column in previous editions, you might expect the above to begin a discussion around the subject of 'how many of these trees will reach maturity?'. Indeed, it is a pertinent question given the widely recognised need to increase tree canopy cover in urban areas, but one which can be left for another day.

There is another question which needs to be discussed. How many of the planted trees are strategically placed and planted where a clearly defined series of objectives are to be met? There is much talk of the undeniable ecosystem service benefits to be achieved by the planting of trees in urban areas and there are several metrics which seek to inform planting decisions. These include canopy cover percentages, map overlays which match tree cover to other social factors such as areas of deprivation and areas of high pollution. These are coupled with numerous guidelines which outline ideals for tree diversity and resilience within tree populations. All of these are valuable and useful, contributing to trees being planted strategically and with a defined purpose which is preferable to the current tendency to 'plant by numbers' hoping that volume alone will achieve the desired benefits.

However, what is missing is simplicity.

In recent years, a deceptively simple rule has begun to capture the imagination of urban foresters, planners and local authorities across the globe. Known as the 3–30–300 rule, it calls for every resident to be able to see at least three mature trees from their home, for all neighbourhoods to have at least 30-per-cent tree canopy cover, and for everyone to live within 300 metres of a high-quality green space – usually interpreted as a park. The rule was proposed in 2021 by urban forestry expert Dr Cecil Konijnendijk and connects the benefits of trees with the health and wellbeing of people. It is a relatively simple concept which can be easily communicated to and understood by everyone irrespective of their professional status. As always, with new guidance or formulae there are accompanying questions. How can it be implemented? Is it expensive? How much data needs to be collected? How long does it all take? Finally... what will be achieved?

What are the measurable benefits local authorities and other landowners expect to see by following and using the 3–30–300 rule? Research shows that people living in these neighbourhoods experience lower stress levels, enjoy more physical activity and social engagement, have a reduced urban heat island effect, improved air quality and an enhanced sense of wellbeing. Being a relatively simple rule, it is easily communicated and straightforward for people to 'buy into', from politicians through to local communities.

How can tree teams implement and use the rule? There are several providers of 3–30–300 mapping in the UK, including Treeconomics and Bluesky, with others in Europe and the US. Surveys typically draw on open-source GIS data (building footprints, canopy layers and parks) and combine this with line-of-sight visibility cone methodology. Buildings are then scored on each of the three criteria, resulting in a visual scoring map. Tree teams can then use these maps alongside datasheets which allow them to drill down into the results.

Results are quick and easy to interpret, providing simple guidance as to where the planting of trees may be most effective.

What evidence is there that it works? There are scores of studies linking access to green space with human health and wellbeing. For example:

- Visual exposure to trees and greenery has been shown to reduce stress and support cognitive restoration (WHO Europe review Urban Green Spaces and Health, 2016).
- Access to green space within walking distance (typically 300–500 m) is consistently linked to higher physical activity levels, improved mental health, reduced loneliness, and lower all-cause mortality (WHO Europe review Urban Green Spaces and Health, 2016).
- Urban tree canopy cover can significantly reduce local air and surface temperatures during heat events, with multiple studies reporting cooling effects of several degrees Celsius in tree-rich neighbourhoods (Bowler et al., 2010; EPA; UK Climate Change Committee evidence).

Are there any case studies? A number of UK local authorities have already begun the process of measuring their neighbourhoods against 3–30–300, and there are scores of case studies from Europe and the US. For example, researchers in Warsaw carried out a spatial analysis in order to ascertain whether the city could be called green according to the rule's criteria. They found that while the majority of dwellings could see three trees, full compliance with 3–30–300 was much lower (at 22 per cent of buildings) once canopy cover and park access were considered.

In short, 3–30–300 offers a benchmark that helps tree teams spot patterns that other metrics may miss. By focusing on visibility, canopy and access together, it is possible to understand where the urban forest is working for people – and where it isn't – and communicate that clearly to residents, planners and politicians both local and national.

So back to tree nurseries and the trees, carefully nurtured and raised, being planted into the landscape. It is easy to suggest that the nursery loses interest once their trees have left the nursery gates, but in my experience this is not true and I have lost count of the number of occasions that I and colleagues have enjoyed walking through urban landscapes seeing the trees they have grown flourishing and developing as well as being despondent seeing trees failing because of inadequate management and maintenance post-planting. It would be great for nurseries to feel that the trees they have grown are delivering tangible benefits, following strategic planting in localities where they are most needed.

3–30–300 is not the only answer, but it provides a simple, easily understandable rule which can, if necessary, provide the basis for more detailed and comprehensive urban forest strategic management.

For more information, take a look at www.treeconomics.co.uk/3-30-300.

Keith Sacre