"A MEADOW STRIMMED ONCE OR TWICE A YEAR IS LESS CARBON COSTLY THAN A FINE LAWN MOWN EVERY WEEK"

Rachel Bailey

CALCULATING CARBON

Pre-Registered Member Rachel Bailey has been looking at ways to measure emissions on her projects

It is quite horrifying how long it takes for the green areas and soil in a newly redesigned garden to sequester sufficient carbon dioxide for the project to become carbon positive – 300 years is not uncommon. Changes to the design – reducing the hard landscaping, adding more shrubs and trees or swapping paving for gravel, for example – all help reduce the carbon footprint and therefore the years to carbon neutrality.

We should be grateful to Pamela Conrad at CMG Landscape Architecture who launched the Climate Positive Design Challenge in 2019 and is behind a fantastic online tool called Pathfinder 2.0. You draw around the area you are working on using Google Maps that logs not only the square metreage but also the location in the world (a tropical garden will sequester more carbon than a temperate one). The tool allows you to input all the materials and the quantities you are thinking of using and try out different options, calculating the years to carbon neutrality for each possibility.

It uses values of 'embodied carbon' for all the hard landscaping materials. This takes into account the CO_2 and other GHG emissions associated with the extraction of raw materials and the manufacturing, transport to site and end of life disposal or recycling of the product. The embodied carbon is very high for materials such as concrete and steel, but very low for materials such as timber, though consideration needs to be given as to where it has come from. This is balanced against the extent and type of planting.

Ongoing maintenance is relevant too – a meadow strimmed once or twice a year is less carbon costly than a fine lawn mown every week.

CONSULTING WITH CLIENTS

Professional Gardener Claire Vokins encourages her clients to make more sustainable choices in garden care

Before the pandemic, I would make the journey for an initial consultation by public transport. Now, of course, there is the option of Zoom. Clients walk around their garden with their phone and show me what's going on. Many of my clients have young families and climate change is on their conscience. They want to do better for a wider community via their garden.

I don't use any chemicals and I'm now pretty much machinery free as well. Sometimes it is about not doing stuff. A client with a huge garden may want to bring in pallet-loads of compost every year for mulch. I encourage them not to have leaves 'cleaned' off their beautiful gardens but to leave them on the beds over winter to break down and return nutrients to the soil. They can live with that little bit of mess for a while, and have a healthier garden in the long term.

I often find myself called in to help with a garden five years or so after it was designed and built. When a client needs new plants, I look to see what can be lifted and divided. I gained the trust of one couple seeking help with a new garden before the house was even built, by saying they needed to live in their house for a bit and get a feel for the space. We spent just £100 on a load of perennials, and created nursery beds. By the time the house build (inevitably) went over budget, we already had plants growing we could use at a later stage. They now have three children and the garden is mainly for them, but those plants we bought at the start now fill the garden.

When I do buy plants, I will, as far as possible, source peat-free in sustainable pots or bare-root. I buy small plants from wholesalers, which establish easily and have less packaging. A nursery like Provender can provide compost, hard landscaping materials and a mixture of perennials, shrubs, trees and turf on one lorry. Not every plant has perfect green credentials, but I am not going to drive to three or four different places, or have multiple deliveries. It is never going to be perfect, but each project can be the least bad option.