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News

Trees trap pollution in congested city streets - plant hedges instead, study finds

Hedges, rather than trees, should be planted alongside many of the most congested city centre roads in order to soak up pollution, a new study concludes. An investigation by an international team of scientists found that in narrow streets with high buildings, an abundance of trees traps toxic fumes at road level. The new data turns on its head decades of received wisdom that trees necessarily improve the air quality of polluted roads. Instead, the research team say hedges should be installed on the edge of pavements, as they are closer to the level of most exhaust pipes and can absorb damaging particles before they disperse into the air. Published in the journal Atmospheric Environment, the study found that, overall, trees play a vital role in battling pollution in towns, but that they can make the problem worse in socalled "street canyons" such as London's Northumberland Avenue or Euston Road. Professor Prashant Kumar, who led the research at Surrey University, said: "The emissions from vehicles start to dilute very quickly as you move away from the road, so any hedge that acts as a barrier slowing down the airflow and catching pollutants on the leaves is going to offer people in homes better protection."The research was published on the same day as a report from the World Health Organization which found that deaths in the UK attributable to air pollution are worse than comparable European countries such as France and Spain.....Read more...

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Source: http://www.telegraph.co.uk/

Cities need to 'green up' to reduce the impact of air pollution

The harmful impact of urban air pollution could be combated by strategically placing low hedges along roads in a built-up environment of cities instead of taller trees, a new study has found. The study, just published in the journal Atmospheric Environment, points out that low hedges reduce the impact of pollution from vehicles in cityscapes where there are large buildings close to roads, far more effectively than taller trees. In some environments, trees actually make the pollution more concentrated depending on prevailing wind conditions and built-up configurations. The study is a collaborative effort by partners from the UK, Europe and USA, led by the University of Surrey's Professor Prashant Kumar, under the umbrella of H2020 funded project, iSCAPE: Improving Smart Control of Air Pollution in Europe. Higher trees only have more of an impact in reducing air pollution in areas which are more open and are less densely populated by taller buildings. Urban air quality continues to be a primary health concern as most of the world's population currently lives in urban areas (54% in 2014), and percentage is projected to rise to 66% by 2050; this is coupled with the fact that one of the main global sources of air pollution in cities is traffic emissions. Professor Prashant Kumar, who is Chair in Air Quality & Health at the University of Surrey, said future urban planning need to consider designing and implementing more "green infrastructure", such as trees or hedges in the built environment to create a more healthy urban lifestyle. Green infrastructure in cities is an urban planning solution for improving air quality as well as enhancing the sustainability of cities for growing urban populations. These green solutions include street trees, vegetation barriers (including hedges), green (or living) walls, and green roofs. ... Read more...

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Source: https://www.sciencedaily.com

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