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# Evergreen trees could shelter cities from more pollutants

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*Urban sidewalk trees, like these Taiwanese rain trees (Koelreuteria elegans) in Taipei, remove large quantities of air pollutants that would otherwise directly be inhaled by humans. Photo by Yan Yu (Andy) Hou.*

Air pollutants pose risks to human health, especially in densely populated cities. Planting trees can effectively remove air pollutants. Leaf area, tree phenology, and leaf surface property all affect the pollutant removal potential of trees, but little is known about the relative importance of these factors.

In the *Journal of Environmental Quality*, researchers report on the different ways four tree species remove air pollutants in Taipei, Taiwan. The team found that leaf area and length of foliated period are key characteristics affecting how the canopy intercepts particulate matter and metal elements while leaf surface property is secondary. They estimated that 72.7 tons of suspended particles were intercepted annually by the 90,000 sidewalk trees in Taipei.

Trees are an important component of urban landscapes, and deciduous trees are often preferred because they change with the seasons, providing a variety of views. However, this study suggests that evergreen trees offer the advantage of removing pollutants from the atmosphere all year round, an important consideration in cities where air pollution is a major environmental concern.

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Ku, P.-J., Chang, C.-T., Jien, S.-H., Hseu, Z.-Y., & Lin, T.-C. (2022). Air pollutant removal by four sidewalk tree species in the largest city in Taiwan. *Journal of Environmental Quality*. **https://doi.org/10.1002/jeq2.20395**

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