

'Green' roofs may help put lid on global warming

September 23 2009



"Green" roofs, such as the one above, could fight climate change, scientists report. Credit: Wikimedia Commons

"Green" roofs, those increasingly popular urban rooftops covered with plants, could help fight global warming, scientists in Michigan are reporting.

The scientists found that replacing traditional roofing materials in an urban area the size of Detroit, with a population of about one-million, with green would be equivalent to eliminating a year's worth of [carbon dioxide](#) emitted by 10,000 mid-sized SUVs and trucks. Their study, the first of its kind to examine the ability of [green roofs](#) to sequester carbon which may impact [climate change](#), is scheduled for the Oct. 1 issue of *ACS' Environmental Science & Technology*.

Kristin Getter and colleagues point out in the new study that green roofs are multi-functional. They reduce heating and air conditioning costs, for instance, and retain and detain stormwater. Researchers knew that green roofs also absorb carbon dioxide, a major greenhouse gas that contributes to global warming, but nobody had measured the impact until now.

The scientists measured carbon levels in plant and soil samples collected from 13 green roofs in Michigan and Maryland over a two-year period. They found that green roofing an urban area of about one million people would capture more than 55,000 tons of carbon, the scientists say. That's an amount "similar to removing more than 10,000 mid-sized SUV or trucks off the road a year," the article notes.

More information: "Carbon Sequestration Potential of Extensive Green Roofs", [Environmental Science & Technology](#), DOI: [10.1021/es901539x](https://doi.org/10.1021/es901539x)

Source: American Chemical Society ([news](#) : [web](#))

Citation: 'Green' roofs may help put lid on global warming (2009, September 23) retrieved 8 February 2023 from <https://phys.org/news/2009-09-green-roofs-lid-global.html>

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