

# How cities can beat the heat

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**What measures may be effective in reducing the urban heat island effect and cool down cities during heat waves? A comparison of recent insights from scientific studies on often-advocated measures such as green roofs, planting more trees, and increasing the albedo of roofs and pavements, showed that green roofs (such as a mat of sedum) on cooling the city might not be that effective.**

**Observations of green roofs in Chicago, for instance, did not alter temperatures in the surrounding areas significantly. A modeling study simulating 25% of the roof area along a street in the centre of Arnhem in the Netherlands as green roofs had no effect on street-level temperatures for conditions such as the 2003 European heat wave: the wind blew away the cooler air before it could reach the ground.**

**Instead, whitening roads and roofs (cool roofs), and thus increasing the city's reflectivity or albedo, planting trees and converting paved areas to grass seem to be more effective.**

**Source: Hoag, 2015. Nature 524: 402-404.**

**Photo: Ken Douglas ([www.stckr.com](http://www.stckr.com))**