

Researchers assess contaminants in New York City's community gardens

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While community gardens provide benefits including urban green space, opportunities for recreation, art expression, social gathering, and improved diets, urban gardening may also increase the opportunity for exposure to common urban soil contaminants such as polycyclic aromatic hydrocarbons (PAHs).

Researchers who assessed the extent and distribution of PAHs in community garden soils in New York City found, although highly variable across gardens, median PAH concentrations were similar to urban soil concentrations in New York State and northeastern U.S. and comparable to cities around the world with a long history of industrialization.

Also, the primary source of PAHs in the city's garden soils is likely the deposition of particles from air emissions. As a result of interventions on air emissions at the state and local level, investigators expect to see future reductions in PAHs in New York City's soil.

"Community gardens are becoming increasingly popular because of their many benefits, but gardening in the city is not without some risk," said Dr. Lydia Marquez-Bravo, lead author of the Environmental Toxicology & Chemistry article. "We found that some garden soils have elevated levels of PAHs; however, our study also provides some evidence that beds used for growing vegetables may have lower levels of PAHs than non-cultivated areas in the gardens, suggesting that it might be possible to reduce PAH concentrations by gardening practices alone."

More information: Lydia G. Marquez-Bravo et al. Concentrations of polycyclic aromatic hydrocarbons in New York City community garden soils: Potential sources and influential factors, *Environmental Toxicology and Chemistry* (2015). [DOI: 10.1002/etc.3215](https://doi.org/10.1002/etc.3215)

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