



**Science
Societies**

Arsenic in wells linked to historic orchard pesticides

January 27, 2022



First author Mark Higgins measuring arsenic and lead levels in soils at depth using an X-ray fluorescence device and soil probe. Photo courtesy of Meredith Metcalf.

Lead-arsenate pesticides were widely used on fruit tree orchards throughout the United States from the 1890s to the 1950s. Arsenic contamination in domestic wells is

common throughout the northeastern U.S., but sources are often thought to be natural.

In a recent *Journal of Environmental Quality* article, researchers report on a multi-year study assessing the potential relationship between arsenic concentrations in more than 100 domestic wells and 189 nearby historic orchards where pesticides were likely used.

Overall, this study found that arsenic and lead from legacy pesticide residues are still abundant throughout historic orchard soils in eastern Connecticut and that wells contaminated with arsenic tend to be much closer to historic orchards than wells with no arsenic.

The researchers stress the importance of increasing homeowner awareness about a higher potential for arsenic contamination in soil and groundwater in areas that were formerly used for orchard farming. Additionally, more work is needed to improve our understanding of the lasting impacts of lead arsenate pesticides throughout the environment in these areas.

Dig deeper

Higgins, M.A., Metcalf, M.J., & Robbins, G.A. (2021). Nonpoint source arsenic contamination of soil and groundwater from legacy pesticides. *Journal of Environmental Quality*. <https://doi.org/10.1002/jeq2.20304>

[More science](#)

[Back to issue](#)

[Back to home](#)

Text © . The authors. CC BY-NC-ND 4.0. Except where otherwise noted, images are subject to copyright. Any reuse without express permission from the copyright owner is prohibited.