

Understanding PFAS

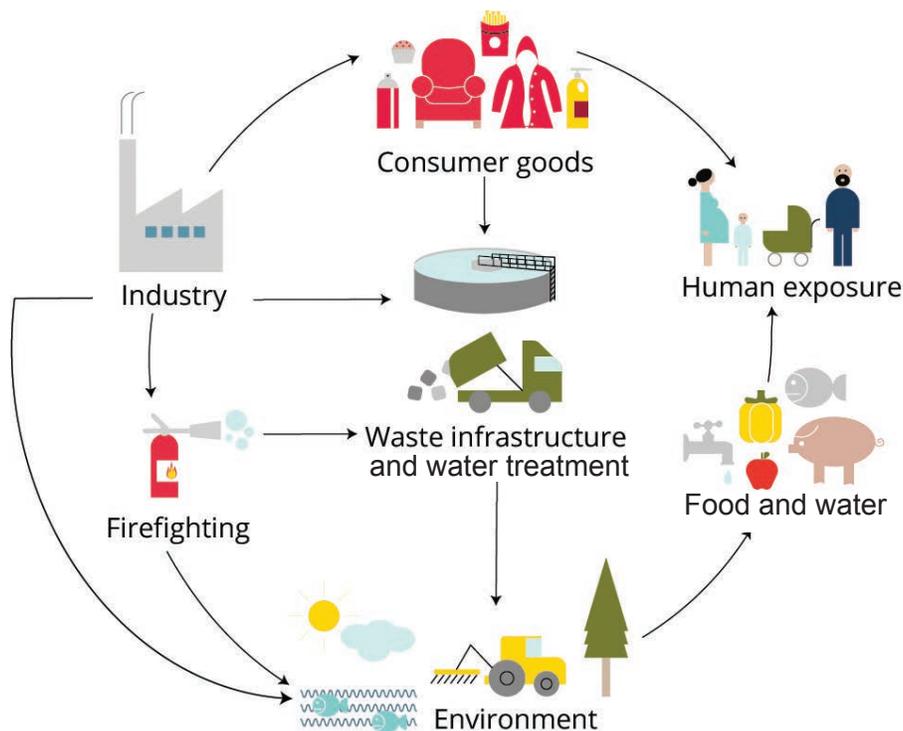
For the Farmer and Gardener

What are PFAS?

PFAS (per- and polyfluoroalkyl substances) are a group of man-made chemicals that have been used since the 1940s in household products and industrial settings for their ability to repel oil, grease, water, and heat.

Keep in mind

- PFAS are getting a great deal of press because we are only recently learning the extent of their presence in Maine.
- Most people are exposed to PFAS from either diet, drinking water or both. Young children are also exposed from household dust that can contain PFAS from its use to make furniture and carpets stain resistant. Food from a farm or garden impacted by PFAS may be another potential source of PFAS exposure.
- Research is ongoing and there is a lot we still don't know about PFAS. Scientists of all types from Maine and elsewhere are working to bring more clarity and facts to light. In the future, this research will help us to more fully assess the risks posed by PFAS exposure.
- Uncertainty can be stressful. If PFAS exposure is a source of stress for you or your neighbors, please reach out to Maine 211 or call 2-1-1 for support resources.



How have PFAS impacted farms?

Due to their widespread use, PFAS have made their way into our waste stream. Since the 1980s, some farms used sludge from waste treatment facilities as a low-cost fertilizer source. This was considered a safe and beneficial use at the time and farmers who used it were unaware that, in some cases, the sludge they were spreading contained concerning levels of PFAS. Because they are resistant to breakdown in the environment, these compounds have remained in the soil, been taken up by plants, made their way into animals that eat those plants, and in some cases leached into both surface and groundwater.

How could PFAS make their way to a home garden?

Potential sources of PFAS in the home garden include:

- Being located on land that was once farmland with a history of sewage sludge application
- Amendment with topsoil from farmland with a history of sewage sludge application
- Amendment with bulk or bagged products containing sewage sludge, compost, or animal manure contaminated with PFAS
- Irrigation with water from a source that contains PFAS.

Note: Because they are so common, most soil in Maine likely has at least a background level of PFAS (0.5 – 1 parts per billion). However, levels of contamination vary greatly based on the contamination level of what has been applied to the soil.

Human health concerns

PFOA and PFOS are two of the better studied PFAS compounds and are known to cause human harm in very small quantities. Therefore, eating food or drinking water contaminated with PFAS may be a concern. If you suspect you have been exposed to PFAS through contaminated water or food, talk with your primary care provider.

For more information

- **Understanding PFAS and Your Home Garden:**
extension.umaine.edu/gardening/understanding-pfas-and-your-home-garden
- **Guide to Investigating PFAS Risk on Your Farm:**
extension.umaine.edu/agriculture/guide-to-investigating-pfas-risk-on-your-farm/
- **Assessing PFAS Contamination on Dairy Farms in Maine:**
extension.umaine.edu/agriculture/assessing-pfas-contamination-on-dairy-farms-in-maine/
- **Maine Department of Agriculture and Conservation's PFAS page:**
maine.gov/dacf/ag/pfas/index.shtml
- **Maine Department of Environmental Protection PFAS page:**
maine.gov/dep/spills/topics/pfas/
- **Agency for Toxic Substances and Disease Registry at US CDC:**
atsdr.cdc.gov/pfas/health-effects/exposure.html

For farm and garden related PFAS questions

University of Maine Cooperative Extension

Email: extension.PFASQuestions@maine.edu | **Phone:** 207.581.3188, 1.800.287.0274 (in Maine)

For health-related questions

Maine Center for Disease Control and Prevention (CDC):

Email: pfas.mecdc@maine.gov | **Phone:** 207.287.8016

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eea.europa.eu/publications/emerging-chemical-risks-in-europe

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