# **BEST PRACTICES TO REDUCE PFAS EXPOSURES** from Garden-Grown Produce in Areas with Contamination



PFAS can get into your garden plants if they are grown in soil or water contaminated with PFAS. It is difficult to know how much PFAS you are exposed to from garden produce, but there are some ways to reduce your intake based on current research.

### Plant crops that accumulate less PFAS when possible<sup>1</sup>



**Measure PFAS** levels in your water and irrigate with water that has low levels<sup>3</sup>

- Use water with PFAS levels below DHHS recommended health guidance values for watering fruit and vegetable gardens.
- Visit the DHHS website to learn more about health quidance values for PFAS in drinking water and how to test.

## Remember that there may be other sources of PFAS

- There are many sources of PFAS, including drinking water and consumer products. Try to understand your exposures and reduce them as much as possible.
  - If your drinking water comes from a public water supply, please contact your utility to learn about the PFAS concentrations in your water.
  - If your drinking water comes from a private well, you should test your well to know the levels of PFAS in your water. Refer to DHHS's PFAS testing and treatment facts sheet for more information.
  - For more information about consumer products which are PFAS free please scan the following QR codes.





#### Other ways to safely garden<sup>3</sup>

PFAS are not the only contaminants that can be found in your soil. Soil may also contain metals, pesticides, bacteria and parasites. Practicing these safe gardening habits can help lower exposure to multiple soil contaminants, including PFAS.

- Use more natural matter like compost and manure in your soil, which can lower a plant's ability to take up PFAS and other chemicals.
- Use raised garden beds with clean soil. Clean soil can be store-bought soil, topsoil, or clean fill from certified soil sources.<sup>4</sup> Contact your local NC Agriculture Extension office to learn more about clean soil.
- Wear gloves and wash hands after gardening and before eating.
- Wash produce before eating to remove soil and dust particles.
- Peel root crops and remove outer leaves of leafy vegetables. •
- Teach children to wash fruits, vegetables, and their hands before eating.

#### References

1. Zhaoyang Liu, Yonglong Lu, Xin Song, Kevin Jones, Andrew J. Sweetman, Andrew C. Johnson, Meng Zhang, Xiaotian Lu, Chao Su, Multiple crop bioaccumulation and human exposure of perfluoroalky! substances around a mega fluorochemical industrial park, China: Implication for planting optimization and food safety. Environment International. Volume 127. 2019.

2. Rossella Ghisi, Teofilo Vamerali, Sergio Manzetti. Accumulation of perfluorinated alkyl substances (PFAS) in agricultural plants: A review. Environmental Research. Volume 169. 2019.

3. Wisconsin Department of Health Services. Bureau of Environmental and Occupational Health. PFAS and Backyard Gardening Facts and Tips for Home Gardeners in Areas with Known or Suspected PFAS Contamination. 2023.

4. Yuanbo Li, Yue Zhi, Rebecca Weed, Stephen W. Broome, Detlef R.U. Knappe, Owen W. Duckworth, Commercial compost amendments inhibit the bioavailability and plant uptake of perand polyfluoroalkyl substances in soil-porewater-lettuce systems, Environment International, Volume 186, 2024







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