

FDA: GenX, 14 types of perfluorinated compounds found in produce grown within 10 miles of Chemours



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In [agriculture](#), [Environment](#)

Produce collected near a PFAS Production Plant in Eastern US

Profiles (data from Backe et al. 2013)

Production year

Grown within 10 miles of PFAS Production Plant

ng/kg in produce

Samples collected traveling downstream from plant

C&E News
<https://cen.acs.org/articles/96/i7/whats-still-doing-in-the-water-downstream-of-a-chemours-plant.html>

Produce (mainly lettuce, cabbage, kale, collard greens) were collected at local farmer's markets along the river from above and below the PFAS production plant in June 2018.

- Based on previous studies, longer chain PFAS compounds can uptake into the leafy portion of the plant from contaminated water use, while only the shorter chain compounds will uptake into the fruit. (Blaine et al. ES&T 2014).
- Wells near the PFAS production plant are known to be contaminated with Gen-X (HFPO-DA) and samples collected from a produce stand within 10 miles of the plant had HFPO-DA concentrations ~ 200 ng/kg.

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A dairy farm in New Mexico was found to have contaminated groundwater due to its close proximity to an Air Force Base where AFFFs have been historically and currently used. The water sample had a PFOS concentration around 2500 ng/L, which is 35 times greater than the EPA health advisory level of 70 ng/L. The impact of the water contamination also resulted in PFAS contaminated silage produced in the area. As a result, dairy cows were exposed to contaminated water and silage, resulting in milk contamination.

- PFOS has a slow elimination rate from milk even after exposure is stopped. With a half-life of 56 days, it would take 1.5 years to eliminate PFOS from the cow after a 30 day exposure period (Asselt et al. Food Chem. 2013).
- The profiles of PFAS in milk are similar to profiles of AFFF foams reflecting the long term exposure of these chemicals to the cows and the persistence of the long chain compounds in these animals.

Conclusions:

The FDA has reviewed results for PFOS/PFOA in top commodities using a safety assessment based on food consumption data and the EPA reference doses. Use of the developed method and robust sampling plan will provide a better understanding of potential dietary exposure to consumers that might include TDS and other sampling assignments.

- Safety assessment was used to advise the New Mexico dairy farm that their milk was unfit for human consumption, the product was discarded.
- PFAS concentrations measured in lettuce and other produce grown near a PFAS production plant were not likely a human health concern from consumption.
- Results indicate PFAS concentrations measured in produce samples and TDS samples were not likely a human health concern from consumption.
- Water sources and foods grown near potentially contaminated sites will be monitored to ensure the safety of foods being introduced into commerce in the US.

Leafy greens collected at local farmers markets near Fayetteville contained elevated levels of GenX and other perfluorinated compounds, according to a recent FDA study.

The FDA shared the findings at an environmental conference in Finland, but not publicly in the US. The Environmental Defense Fund obtained photographs of the agency's findings. The [Environmental Working Group released them today](#).

Contacted by Policy Watch, an FDA spokesman shared the findings and said the agency is preparing to post the findings to a webpage. The FDA did not reply to a question as to why the results were not released earlier.

In October 2017, researchers tested for the presence of 16 PFAS in 91 food samples collected in the Mid-Atlantic region, including North Carolina, Ohio, Kentucky, Tennessee, West Virginia, Maryland, Virginia, and Delaware.

In a related study, in 2018 the FDA sampled leafy greens grown within 10 miles of a PFAS production facility. GenX was detected at 200 parts per trillion in produce grown within 10 miles of Chemours, according to the study. There is no regulatory standard for GenX, although state health officials have set an advisory goal of 140 ppt in drinking water.

Fourteen other types of PFAS were also detected in the produce, including PFOA, which was phased out in 2015. Levels of PFBA, used to make photographic film, reached nearly 600 ppt. The cumulative concentration of PFAS in the produce ranged from 1 ppt to more than 1,100 ppt.

The FDA noted that the levels were not likely a human health concern, but that foods grown near PFAS sources should be monitored.

The greens were collected before state regulators required Chemours to control its air emissions at the Fayetteville plant. The compounds leaving the stacks, mixing with rainwater and humidity, then falling to the earth, contaminating groundwater, private drinking water wells and food miles away.

As part of a consent order between Chemours and the NC Department of Environmental Quality, the company is installing thermal oxidizers to eliminate the emissions initially by 92 percent, and then by 99 percent by the end of this year.

In food samples collected in other states, PFAS was detected in 14 of the 91 samples collected and examined by the FDA, including PFOS in almost half of the meat and seafood products, PFPeA in chocolate milk and high levels in chocolate cake with icing, PFBA in pineapple, and PFHxS in sweet potato.

PFAS are used in the manufacture of nonstick cookware, plastic packaging, water-resistant fabrics and other consumer goods. The compounds have been linked to thyroid, reproductive, kidney, liver and developmental disorders, as well as some cancers. They are widespread in the environment, contaminating groundwater, drinking water, lakes, rivers, soil, compost and food. Despite the health effects of PFAS, the EPA has failed to regulate them.

Newer studies suggest that "short-chain" PFAS, like GenX, may also pose a risk to human health. To study the effects of certain short-chain PFAS and their effects on human health, the FDA said it is

collaborating with other federal health and environmental agencies “to determine appropriate next steps for the authorizations for the use of short-chain PFAS in food packaging.”

Along with concerned citizens and other environmental and public health advocates, the Environmental Working Group is asking lawmakers and regulators to designate PFAS as hazardous substances, not just individually but as a class.

EWG is also calling for expanded monitoring for PFAS in food, air, water and humans; ending the use of the compounds in packaging, food handling equipment and cookware; ending sewage sludge applications on farm fields when PFAS has been detected; updating EPA’s “sludge rule” to require testing; and quickly establish clean up standards in tap water and groundwater.

Source: <https://pulse.ncpolicywatch.org/2019/06/03/fda-genx-14-types-of-perfluorinated-compounds-found-in-produce-grown-within-10-miles-of-chemours/>