



# PFAS Briefing to the Joint Standing Committee on Agriculture, Conservation and Forestry

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Nancy McBrady, Direct, Bureau of Agriculture, Conservation and Forestry

Amanda E. Beal  
Commissioner Director

Nancy McBrady  
10 Elkins Lane  
Augusta, ME 04333

(207) 287-3200  
[www.maine.gov/dacf](http://www.maine.gov/dacf)

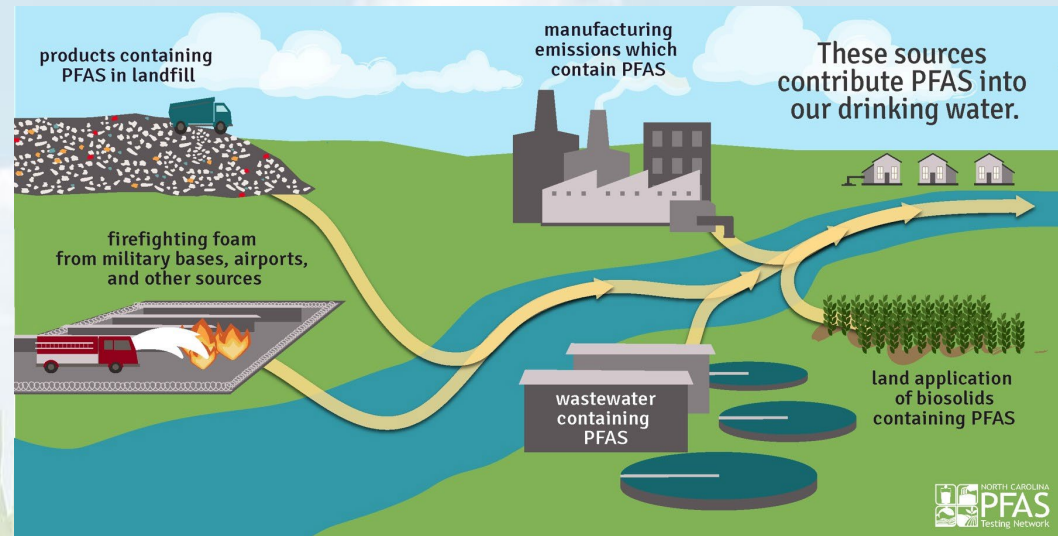
# What is PFAS?

- “PFAS” (per- and poly-fluoroalkyl substances) are a large group of synthetic fluorinated chemicals.
- This family of chemicals take a long time to break down in the environment due to the extremely strong bond between fluorine and carbon.
- Called “forever chemicals” because of how they persist in the environment.
- PFAS chemicals have been used widely in products across the country since the mid-20<sup>th</sup> century. Resist water, stains, heat, and grease.
- Found in clothing/textiles, furniture fabric, food packaging, carpets, cookware, electronics, makeup, etc.



# Why and where are they in the environment?

- Used so widely that they are present in our wastewater in septic tanks and in treatment plants.
- PFAS has been found at former military sites, closed unlined landfills, in firefighting foam.
- Found in groundwater and soils where materials containing PFAS were utilized or disposed.



# What are the health impacts?

- Increased cholesterol levels.
- Decreased vaccine response.
- Changes in liver enzymes.
- Increase risk of high blood pressure or preeclampsia in pregnant women.
- Small decreases in infant birth weight.
- Increased risk of kidney cancer or testicular cancer.

Source: <https://www.atsdr.cdc.gov/pfas/health-effects/index.html>

# Why are we finding PFAS in Maine agriculture?

- Land spreading of treated municipal wastewater residuals and industrial residuals. Permitted program to amend fields with nutrients.
- Dairy farm in Arundel with history of residual spreading tested in 2016-2017.
- Milk exceeded State's current Action Level for PFOS at 210 parts per trillion (ppt).



# State response to PFAS contamination

- Governor's PFAS Task Force in March 2019. Recommendations regarding safe drinking water and food and identifying and investigating PFAS in the environment.
- Development of PFAS screening levels for drinking water, soil beneficial use, milk, beef, and crop-specific soil (soil-hay-milk; soil-corn silage-milk).
- Retail milk testing led to identification of additional dairy farm with PFOS above state's milk Action Level; DEP water testing led to a third.

# Response to PFAS contamination, cont'd.

- By 2025, Maine Department of Environmental Protection must test groundwater and soil at all locations (700+) with known sludge or septage application.
- DACF actively coordinating with DEP and CDC where agricultural locations involved.
- DACF identifying and prioritizing potential research projects with academic and ag service provider partners.
- Collaboration with University of Maine Cooperative Extension, MOFGA, MFT, etc. to provide guidance and support.

# DACF's farm-specific response

**Our goal: identify, then limit or eliminate the PFAS in impacted products.**

- Work with farms to understand spreading history (if known), current farm operations, sources of feed, etc.
- Data is key. DACF conducts and pays for comprehensive (and ongoing) sampling of milk, feed, soil, meat, livestock (post-mortem). Every farm is different.
- Work with producers to interpret and make management recommendations. Progress in dropping PFAS levels in milk.
- Funding available pay for testing (and reimburse if farm independently tested), farm water filtration system, and indemnification (currently building out).
- Building staff capacity.



# Uncharted territory

- No *federal* standards for most foods; Maine has had to devise state testing and action levels.
- Lab testing is expensive and takes time.
- No live animal tests available – yet.
- Major challenge – emerging science, lots of unknowns
- Other states on the horizon?

# More research is needed

- LD 558 directed DACF to develop a comprehensive research study plan to identify and aid farmers who are or may be affected by PFAS contamination.
- DACF, DEP, CDC, University of Maine, Cooperative Extension, MOFGA worked to identify research projects that support long-term farm viability.
- Recommended short-term research projects focused on: 1) supporting farm management decisions; 2) assesses future options for viable uses of land; and 3) building and developing infrastructure.
- Recommended long-term research projects focused on long term monitoring.

# Research cont'd.

- DACF proposes the creation of a PFAS Research Advisory Committee.
- Members with relevant environmental, agricultural, public health, academic research experience, external academics, and possibly, paid technical members. Federal partners as well.
- Issue calls for proposals, vet proposals, and make recommendations regarding research funding allocations.
- Establish a dedicated fund similar to the Lead Poisoning Prevention Fund to support ongoing, critical PFAS research.





Thank You.

[Nancy.McBrady@maine.gov](mailto:Nancy.McBrady@maine.gov)