Timeline of PFAS Response

- 2016: Discovery of impacted dairy farm in Arundel
  - Creation of milk PFOS action level
- 2019: Governor Mills PFAS Task Force created
  - Recommendations regarding safe drinking water and food and identifying and investigating PFAS in the environment.
- 2020: Retail milk testing identifies Fairfield dairy farm with high PFOS. Third dairy discovered thereafter.
- 2021: Legislature approves budget for DACF and DEP response
- 7,600 farms in Maine. Vast majority likely not impacted.
- Not a “Maine issue.”
Agency Roles & Coordination

**Maine DACF** –
- Working directly with commercial farms regarding PFAS impacts pertaining to commercial agriculture
- Conducting sampling of farm products (meat, milk, vegetables, etc.), soils, and irrigation water
- Regulating acceptable concentrations of PFAS in farm products

**Maine DEP** –
- Testing permitted sludge and septage sites and drinking water sources

**Maine CDC** –
- Develops action levels and screening levels for farm commodities and agronomic pathways
- Consults with Maine DACF regarding site-specific farm scenarios

DACF’s Farm-Specific Response

Support farms by identifying PFAS contamination, pursuing strategies to reduce or eliminate PFAS, and providing technical and financial assistance to retain farm viability.

- Data is key. Comprehensive, ongoing sampling.
- **Every farm is different.**
- Progress in dropping PFOS levels in milk and beef cattle.
- Not all PFAS are the same.
  - PFOA doesn’t readily accumulate in beef
  - Little uptake in asparagus, garlic, potatoes, grains, corn, etc.
PFAS Investigation Elements

- **Gather Information**
  - Inputs, products, operations, animal management, etc.
- **Sampling plan** created.
- **Time** Few labs, long wait times.
- **Result(s) interpretation** Results validated and assessed inter-agency.
- **Mitigation recommendations** presented with follow-up testing. CDC input.
- **Financial assistance** to farms.
- **Mental health** and other support resources exist via partner organizations.


Producer Examples

- **Beef:**
  - Contaminated water and hay fields.
  - Installed water filter, provided clean feed, recommended grazing/feeding strategies
  - Live muscle biopsies. Serial blood samples. Slaughter sample. Result: below the Action Level/ND.

- **Vegetable:**
  - Water contamination (9,000 ppt). Minimal soil contamination.
  - Trucked water. Installed system.
  - Updated greenhouse for year-round harvesting and to reduce water usage.
DACF’s Financial Assistance

<table>
<thead>
<tr>
<th>Testing Reimbursement</th>
<th>Water Filtration</th>
<th>Infrastructure Investment</th>
<th>Income Replacement</th>
<th>Livestock Indemnification</th>
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<tbody>
<tr>
<td>Reimburse producers who self tested (didn’t wait for DEP/DACF). Covers soil, farm water, and other media. Covers third party contractors who conducted sampling.</td>
<td>May reimburse farms that previously installed water filtration on their farm wells 20 ppt or higher. Pay for new systems for farms. Cover yearly maintenance, testing, and replacement parts.</td>
<td>Assist farms that need help shifting to new systems to maintain viability. Examples: clean feed; well-drilling; equipment to switch to new crop; fencing new fields for grazing.</td>
<td>Provide compensation to farm with PFAS contamination causing them to cease/slow production. Payment(s) for up to 1 year’s gross income. Will assess ongoing sales, other PFAS assistance.</td>
<td>Provide compensation for value of animals contaminated by PFAS at levels where depuration is unlikely to be feasible due to timeframe, financial costs, and farm capacity. (USDA program also provides this assistance for dairy cows).</td>
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MOFGA/MFT Coordination

Where are we now?

- Working with 56 farms with varying degrees of contamination.
- Over $2.0 M spent July '21–January '23
  - > $600,000 income replacement
  - > $350,000 farm viability support
  - $350,000 laboratory testing
  - Funds allotted for multi-agency database effort, etc.
- Advocating for robust, coordinated federal response
  - Governor, Congressional offices, DACF to federal agencies & USDA Sec. Vilsack
  - National organizations
- Sharing learnings with other states
Reason for Hope/Challenges

- Bipartisan legislative support gives agencies the resources to provide assistance.
  - Laboratory delays slow the process and add tremendous stress.
- Animals can depurate over time when exposure halted.
  - Certain species (pigs) may have long half lives; time to depurate not always feasible.
- Water filtration can reduce/remove PFAS chemicals
  - Remediation for soils not yet known.
- Research is active in Maine, nationally, and internationally.
  - Needed specifically focused on practical applications for farmers and agriculture.

Thank You!

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