DACF PFAS Update

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Nancy McBrady – Deputy Commissioner
Meagan Hennessey – Director, PFAS Response Program
Beth Valentine – Director, Fund to Address PFAS Contamination

Amanda E. Beal
Commissioner

Randy Charette
Deputy Commissioner

Nancy McBrady
Deputy Commissioner

18 Elkins Lane
Augusta, ME 04333

(207) 287-3200
www.maine.gov/dacf

PFAS Update

Introduction

PFAS Response Program – overview and key learnings

National Advocacy Efforts

PFAS Fund – status update

Multi-Agency Collaboration

Maine DACF –

- Working directly with commercial farms
- Conducting sampling of farm products, soils, and irrigation water
- Regulating acceptable concentrations of PFAS in farm products

Maine DEP –

- Testing permitted sludge and septage sites, home wells, landfill leachate

Maine CDC –

- Develops action levels and screening levels for farm commodities and agronomic pathways
- Consults with Maine DACF regarding site-specific farm scenarios
- Advises individuals with concerns regarding their health

Multi-Agency Collaboration, cont'd.

Maine Drinking Water Program –

- Responsible for public drinking water program oversight, including PFAS testing

Inland Fisheries and Wildlife –

- Testing wildlife and issuing consumption advisories

Coordination with other Maine organizations, other state agricultural agencies, and federal agencies

PFAS Response Program

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

- January 2022 – January 2023: built team of 7 FTE + 2 PTE
- Established protocols and procedures
- Conducted field-based science
- Demonstrating that with the right support and assistance, farming can continue in many instances

PFAS Response Program Team

Director, Meagan Hennessey

Agricultural PFAS Specialists – *(3 positions)*

- Work directly with producers, including sample collections

GIS / Technology Coordinator

- Streamlining data collection and inter-agency database

Finance & Application Specialist

- Manage contracts, etc., and manage producer applications

Data Management Specialist

- QA / QC of data, manage significant data set

PFAS Response Program Team

Sustainable Dairy and Forage Systems Specialist

- Part-time contractor
- Knowledgeable in vegetative physiology, typical dairy management practices, etc.

Veterinarian

- Transitioning from a contract role to a shared staff position
- Performs biopsies, blood draws, etc., and advises on animal physiology

DACF.PFAS@maine.gov
(207) 287-4514

Investigation Elements

- **Gather Information**
  - Inputs, products, operations, animal management, etc.
- **Sampling plan** created.
- **Time** Results often ~28+ business days. New lab offering 10 business days.
- **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.

https://www.maine.gov/dacf/ag/pfas/index.shtml

PFAS in Maine: Where Are We?

- DEP has completed Tier 1 and 2 sampling. Tier 3 underway
- 2023: Fewer farms than in 2022
  - Typically, lower PFAS levels than higher-tier sites
- DACF has contacted a total of 84 farms, including self-testers
- 59 farms have at least one test exceeding a screening level – the impact on operations will vary greatly

Existing Financial Assistance

Testing Reimbursement	Water Filtration	Viability / Infrastructure Investment	Income Replacement	Livestock Indemnification
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.	Reimburse farms that previously installed water filtration on their farm wells. Pay for new systems for farms. Cover yearly maintenance, testing, and replacement parts.	Assist farms that need help shifting to new systems to maintain viability. Examples: clean feed; well-drilling; equipment to switch to new crop	Provide compensation to farm with PFAS contamination causing them to cease/slow production. Will assess ongoing sales, other PFAS assistance. *PFAS Fund taking on I.R.*	Provide compensation for value of animals contaminated by PFAS at levels where depuration likely unlikely feasible due to timeframe, financial costs, and farm capacity. (USDA program also provides this assistance for dairy cows).

Financial Assistance to Date

Income Replacement

- $1,413,000 to 10 farms
- PFAS Fund to take on I.R. assistance (2 years)

Farm Viability / Infrastructure

- $884,000 to 11 farms
- Clean feed, new equipment, greenhouses, water delivery, fencing…..

Water Filtration

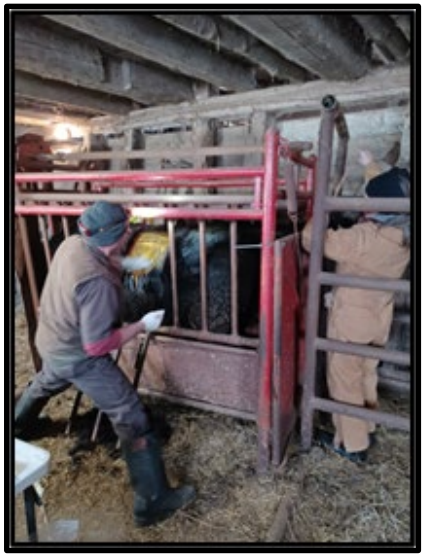
- $96,000 for 5 systems
- Installation and O&M

Total: $2,657,000 +

Producer Example

Beef:

- Contaminated hay (winter feed) fields
- Pasture (summer feed) fields < 1 ppb PFOS
- Freezer sample of beef 2.68 ppb PFOS – below AL, but elevated
- Sampling plan for live animals:
  - What is the half-life? (limited published research)
  - Correlation between muscle, blood, and/or fecal concentrations?
- Recommended fall harvesting vs. spring
- Determined estimated ratio between serum and muscle, enabling informed harvesting decisions with a minimally invasive procedure



Producer Example

Vegetable:

- Water contamination (9,000 ppt)
- Minimal soil contamination
- Short term: Trucked in water
- Medium term: Installed filtration system
  - Flow rate limited due to size of the system – cost prohibitive to replicate original
- Long term: Updated greenhouse for year-round harvesting and to reduce water usage

What have we learned?

- **Data is key:**
  - Comprehensive (and ongoing) sampling
  - > 2,600 samples since 2021
- **Every farm is different, recommendations need to be tailored:**
  - Transfer rates differ (why?)
  - Management options differ
- **Learnings**:
  - Animals can depurate!
  - Guidance for hay producers, dairy producers published
- **Not all PFAS are the same:**
  - PFOA does not appear to transfer to Beef;
  - Little uptake in asparagus, broccoli, garlic, potatoes, grains, corn, etc.
- **Some farms will need ongoing technical and financial assistance**
- **Emerging science**
- **Evolving methodologies**

National Efforts

Maine continues to engage with:

- Individual states
- MSU Conference, etc.

- **National Association of State Depts. of Agriculture (NASDA)**
  - A top priority for 2024

- **Federal Agencies**
  - Greater engagement

- **State Delegation**
  - Farm Bill
  - Farmers Hit with PFAS Act

PFAS Fund

Four categories of support:

- Direct assistance to impacted farms, $30.3M
- Land acquisition & management, $21.5M
- Research to support on-farm decision making, $11.2M
- Health initiatives, $7.3M

Funding: $60M from the State, ~$5M from USDA

Phases of Development

1

Groundwork

Fund established by Governor with bipartisan legislative support, 7/22

Director hired, 9/22

Advisory committee met for the 1st time, 11/22

2

Planning

Advisory committee

Subcommittees

Public hearings

Plan approved 7/23

3

Implementation

Establish internal policies & procedures to distribute funds

Routine technical rulemaking

Begin distributing funds

4

Review & Refine

Annual reports to the Legislature

Ongoing process

Rulemaking

Public hearing Jan. 16; deadline for written comments Jan. 26

- Chp. 400: Administrative Cost Grants
- Chp. 401: Income Replacement
- Chp. 402: No Cost Technical Assistance
- Chp. 403: Infrastructure
- Chp. 404: Loan Assistance
- Chp. 405: Real Estate Purchases
- Chp. 406: Research Grants
- Chp. 407: Blood Testing
- Chp. 408: Mental Health Care

Shortly after rules are finalized . . .

The PFAS Fund will begin accepting applications for:

- Compensation for time spent on PFAS response
- Income replacement (up to 2 years)
- No-cost technical assistance (e.g. business planning)
- Infrastructure (projects valued above $150,000)
- Loan assistance

Shortly after rules are finalized . . .

The PFAS Fund will begin:

- Accepting inquiries for land purchases
- Developing application materials and procedures for competitive research grants
- Contracting for blood testing and mental health services

Collaboration with Maine CDC

- MECDC to make PFAS blood test results reportable
- Educational resources for clinicians and the public
- Farmer/farm worker soil exposure study
- Exploring a body burden reduction clinical trial

Other short- to mid-term goals

- PFAS response kit
- PFAS response navigators
- Establish research and land advisory panels
- Land stewardship
- Guidance on land transactions for realtors, lenders, etc.

Longer-term goals

- Conservation payments
- Establish an experiment station
- Compile and share results of scientific research
- Support medical monitoring
- Potentially conduct a clinical trial

Thank You!

Meagan.Hennessey@maine.gov

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https://www.maine.gov/dacf/ag/pfas/index.shtml