



May 2024

Project Results: Home-Raised Livestock PFAS Testing



Community members asked us to test their home-raised livestock products for PFAS.

- Community members in East Selah and the West Plains needed to know whether they could safely eat their meat and eggs.



We collected 18 livestock samples from 11 homes between East Selah and the West Plains to test for PFAS.

- Samples included cow blood, beef, chicken and turkey meat, and chicken eggs.



7 out of 11 participating households were told to limit how much home-raised livestock products they eat.

- Exposure to **Perfluorooctane Sulfonic Acid (PFOS)** from chicken eggs was a main concern. **Perfluorohexane Sulfonic Acid (PFHxS)** was also detected.

PFAS exposure from home-raised livestock products is a public health concern.

When animals drink water contaminated with **per- and polyfluoroalkyl substances (PFAS)**, the chemicals can end up in their milk, eggs, or meat. People can be exposed to PFAS when they eat these home-raised foods. This is a problem, because when PFAS build up in our bodies it could increase our risks for certain health conditions, including kidney cancer, low birthweights for babies, and decreased immune system response to vaccines.

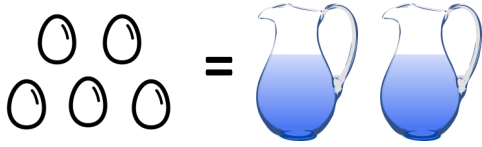
In December 2023, we worked with 11 households between East Selah and the West Plains to test their home-raised eggs and meat for 16 types of PFAS. The USDA Food Safety Lab tested the samples for us. Each household had PFAS detections in their private well water, or had neighbors who had contaminated private wells.

We gave participants tailored health consultations on their results. These consultations included:

- A summary of their test results.
- Individualized advice on how much of their meat or eggs each member of their family can eat safely each week.
- Recommended steps to lower PFAS levels in their livestock and chickens.

What else did we find?

- Eating home-raised livestock that drink contaminated water can be a significant exposure pathway for community members.
- Backyard chicken eggs had detectable levels of PFOS, even if PFOS levels in water were relatively low.



At one home with approximately 250 parts per trillion (ppt) of PFOS in their well water, adults eating 5 home-raised eggs per week would get the same exposure as drinking 2 liters of that same water every day for a week.

Our recommendations to impacted project participants

- Switch livestock to PFAS-free or filtered water. This will help the animals clear the PFAS from their bodies.
- Move chicken coop and pens to a new area. Chickens can shed PFAS into soil with their poop and be re-exposed when they forage.
- Eat muscle meats, not organ meats. PFAS build up in blood and organs.
- Don't use manure from contaminated animals in food gardens.

Our next steps

- We continue to seek funding to test livestock and garden produce, and provide health advice to residents with impacted water and property.
- We are advocating for investigation and mitigation of exposure from eating livestock and garden products at the East Selah and West Plains sites.

Legend: Our Recommended Eating Restrictions



Household children



Household adults



Significant restriction: Limit to 0-1 eggs/week, 0-1 servings meat/week

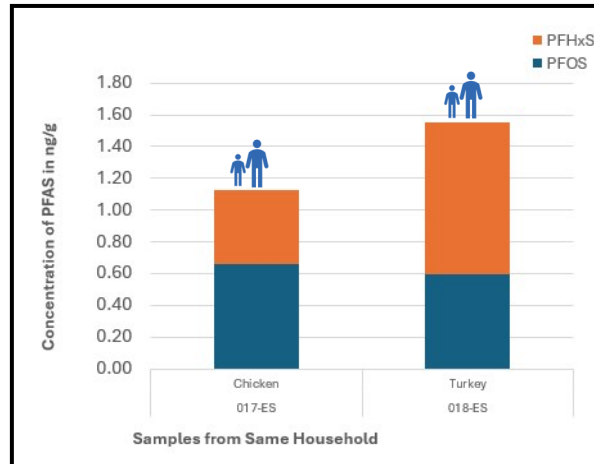


Moderate restriction: Limit to 4-7 eggs/week, 2 servings meat/week

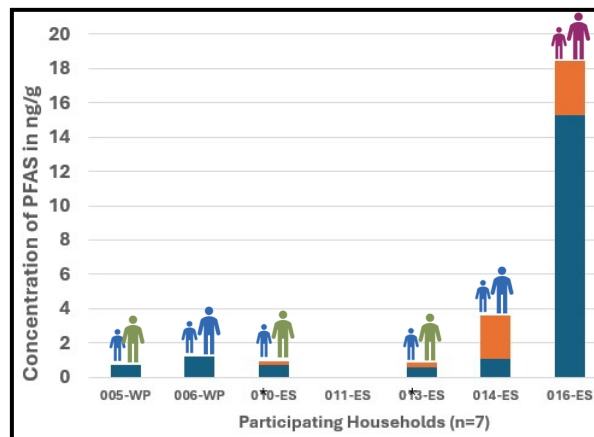


Slight restriction: Limit to 7-12 eggs/week, 3 servings meat/week

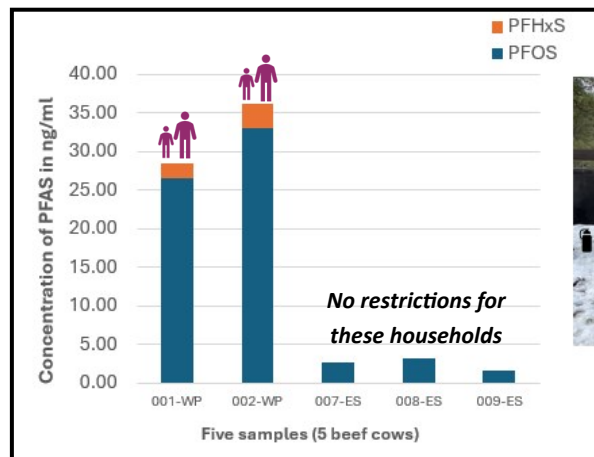
PFAS levels in Poultry Meat



PFAS levels in Chicken Eggs



PFAS levels in Cattle Blood Serum



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