

## **PFAS sampling instructions for soil**

### **Monitoring PFAS in CT Agricultural Soils: A pilot program to research soil contamination levels**

#### **1. The CAES PFAS sampling kit includes:**

- 1 Collection trowel
- 1 Mixing bucket
- 5 sample submission containers
- Nitrile Gloves
- 1 Sharpie marker

Samples will only be accepted if a CAES sample collection kit has been used due to a high likelihood of sample contamination from use of improper materials.

CAES will accept up to 5 samples per farm at a time. Farms can submit samples twice per calendar year. We recommend using the sampling method below to collect representative samples from different areas of the farm.

#### **2. Sampling Method:**

- Divide the agricultural area into distinct sampling zones
  - One zone encompassing the whole farm is appropriate for small areas with minimal variability in soil type and soil amendment usage (current and historic).
  - For larger and more variable fields, divide zones based on land use, soil type, and amendment usage. Particularly, areas where biosolids based fertilizer have been used should be considered separately.
  - We recommend sketching a map to keep track of zone boundaries and/or writing down a description of each zone to help interpret your PFAS data using the worksheet provided. This worksheet is intended for personal use only and will not be collected by CAES.
- Collect one representative soil sample from each sampling zone
  - Wear the provided nitrile gloves. Avoid wearing waterproof gear (e.g. gortex jackets or boots) while sampling. During the sampling process, do not walk directly on the soil you intend to sample.
  - Collect subsamples in a zig zag pattern throughout the zone.
    - A minimum of 12-15 subsamples should be collected in small areas and at least 20 for larger areas (> 2 acres)
  - For each subsample:
    - Remove plant matter from soil surface.
    - Use the provided sampling trowel to collect the top 6 inches of soil (trowel length is 6 inches).

- Deposit all subsamples for the sampling zone into the provided mixing bucket.
- Shake the bucket vigorously or stir with the sampling trowel to thoroughly combine subsamples.
- Label a submission container to indicate the zone sampled (ideally numbered 1-5). Fill the container  $\frac{3}{4}$  full with the subsample mixture. Discard the remaining soil.
- Thoroughly rinse and dry the mixing bucket and collection trowel with clean water and paper towels between sampling zones. Change gloves between sampling zones
- Refrigerate collected samples until submission to CAES. **Submit samples within 48 hours of sample collection.**
- Avoid contact between samples/sampling equipment and: biosolids based fertilizers, compost, manure, waterproof or stainproof clothing, stain resistant carpets and furniture, paint, and pesticides and related chemicals and gear

**Optional:** Fill out information on your samples using the CAES PFAS in Soil Survey, which will be provided to you via email. Information input to the survey can be used by CAES scientists and others to help interpret your results and help you mitigate the effects of any PFAS found on your property.

All data collected by CAES is subject to the Freedom of Information Act, and may be disclosed in the event of an official request. In the event of a FOIA request, customers will be notified if their data is subject to disclosure. Unless specific disclosure is requested, owner names, names of farms, exact locations, and other identifying information will not be released.

### 3. Logistics

- Email [CAES.PFASTesting@ct.gov](mailto:CAES.PFASTesting@ct.gov) to schedule an appointment to pick up a CAES PFAS sampling kit at the Johnson-Horsfall Laboratory at the CAES New Haven campus. Appointments are available 8:30 am -4:30 pm Monday-Friday. The address is 123 Huntington St., New Haven, CT 06511. We are closed on weekends and holidays.
- Samples should be submitted within 48 hours of collection, and stored in a refrigerator or on ice until they are brought to CAES
- Sample submission is **by appointment only** at the Johnson-Horsfall Laboratory at the New Haven CAES campus. Appointments will be available during business hours, 8:30 am – 4:30 pm from Monday to Friday. The address is 123 Huntington St., New Haven, CT 06511. We are closed on weekends and holidays. Email [CAES.PFASTesting@ct.gov](mailto:CAES.PFASTesting@ct.gov) to schedule.
- Unless alternative arrangements have been made, the **farm owner must be present** to sign testing and eligibility agreements.
- Please return the mixing bucket and collection trowel when samples are submitted
- The turnaround time for results is 30 days or less. You will be notified if any delays occur.
- Each farm may submit one batch of samples (5 samples or less) up to two times per year

## PFAS Sample Collection Worksheet

Sample Number	Date collected	Number of subsamples	Zone Description
Example A	MM/DD/YYYY	15	Fenced grazing area at east end of property
Example B	MM/DD/YYYY	17	Vegetable field between the barn and the road, biosolids applied historically
1			
2			
3			
4			
5			

**Diagram of Sampling Zones** (continue on back as needed):