



# CAES

The Connecticut Agricultural Experiment Station

*Putting Science to Work for Society since 1875*

123 Huntington Street

New Haven, CT 06511

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# PFAS sampling instructions for soil

(for customer use only)

**Note:** The Connecticut Agricultural Experiment Station does not take responsibility for sampling activities. The results provided will apply to samples as received by the lab.

## 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 kit has been used. Sample contamination from improper material use is common. Please return the bucket and trowel when samples are submitted.

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 sampling zones.
  - One zone for the whole farm is appropriate for small areas with few differences 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. Areas where biosolids based fertilizer has been used should be sampled 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. Use the worksheet provided. This worksheet is for personal use only. It will not be collected by CAES.
  
- Collect one composite soil sample from each zone.
  - Wear nitrile gloves. Avoid wearing waterproof gear (e.g., Gortex jackets or boots). Do not walk directly on the soil you intend to sample.
  - Collect subsamples in a zig zag pattern through the zone.
    - A minimum of 12-15 subsamples should be collected in small areas. At least 20 for larger areas (> 2 acres).
  - For each subsample:
    - Remove plant matter from soil surface.
    - Use the trowel to collect the top 6 inches of soil. Trowel length is 6 inches.
  - Deposit all subsamples for the sampling zone into the mixing bucket.
  - Shake the bucket or stir with the trowel to thoroughly combine subsamples.
  - Label a submission container to indicate the zone sampled (numbered 1-5). Fill the container  $\frac{3}{4}$  full with the soil mixture. Discard the remaining soil.
  - Rinse and dry the bucket and trowel between zones. Use clean water and paper towels. Change gloves between sampling zones.
  - Refrigerate samples until submission to CAES. **Submit samples within 48 hours of 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.



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**Optional:** Fill out the CAES PFAS in Soil Survey. We will provide it to you via email. Information input to the survey can be used by CAES scientists and others to help interpret your results.

All data collected by CAES is subject to the Freedom of Information Act. It 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

- Sample submission is **by appointment only** at the Johnson-Horsfall Laboratory at the New Haven CAES campus. Appointments are 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.



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## PFAS Sample Collection Worksheet

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

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