



STATE OF CONNECTICUT
DEPARTMENT OF AGRICULTURE
Office of the Commissioner



Bryan Hurlburt
Commissioner

860-713-2502
agr.hemp@ct.gov

Connecticut Department of Agriculture
Hemp Sampling Procedures

(rev. 8/16/19)

Definitions

“Certificate of analysis” means a certificate from a laboratory describing the results of the laboratory’s testing of a sample.

“Certified seed” means hemp seed for which a certificate or any other instrument has been issued by an agency authorized under the laws of a state, territory or possession of the United States to officially certify hemp seed and that has standards and procedures approved by the United States Secretary of Agriculture to assure the genetic purity and identity of the hemp seed certified.

“Department” or “DOAG” means the Connecticut Department of Agriculture.

“Hemp” has the same meaning as provided in the federal act.

“Hemp Products” means products with a delta-9-tetrahydrocannabinol concentration of not more than 0.3% on a dry weight bases derived from, or made by, the processing of hemp plants or hemp plant parts.

“Laboratory” means a laboratory located in the state that is licensed by the Department of Consumer Protection to provide analysis of controlled substances pursuant to section 21a-246 of the general statutes, The University of Connecticut, the Connecticut Agricultural Experiment Station, the Department of Public Health, the United States Food and Drug Administration, the United States Department of Agriculture or a facility that meets the following additional criteria that is accredited as a testing laboratory to International Organization for Standardization (ISO) 17025 by a third-party accrediting body such as the American Association for Laboratory Accreditation or the Assured Calibration and Laboratory Accreditation Select Services;

“Licensee” means a person who possesses a Connecticut license to cultivate, process or manufacture hemp or hemp products.

“Plot” means a contiguous area in a field, greenhouse or indoor growing structure containing the same variety or strain of hemp throughout the area.

“Post-harvest sample” means a representative sample of the form or hemp taken from the harvested hemp from a particular plot’s harvest collected in accordance with the procedures established by the commissioner.

“Pre-harvest sample” means a composite, representative portion from plants in a hemp plot collected in accordance with the procedures established by the commissioner.

“THC” means delta-9-tetrahydrocannabinol.

“Compliance Policy” means the document established by the department, as amended, which describes the compliance procedures for the legal cultivation and processing of hemp.

“Public Act” means Public Act 19-3.

Sampling Timeline and Grower Responsibilities

1. A completed Harvest Report Form from the licensee shall be provided to DOAG within 15 days prior to the expected harvest date and include the date and time of sample collection.
2. The licensee will follow the sampling procedures below and submit a representative sample of the plot to be harvested within fifteen (15) days prior to intended harvest date.
3. DOAG reserves the right to inspect, sample and test all hemp crop produced by any licensee at any time. Inspectors shall be provided with complete and unrestricted access to all industrial hemp and other cannabis plants, whether growing or harvested, and all land, buildings, and other structures used for the cultivation and storage of all hemp and other cannabis plants.
4. The licensee shall not harvest hemp until DOAG receives the pre-harvest sample results from the laboratory, and authorizes the harvest in writing to the grower.
5. Upon receipt of DOAG's authorization to harvest, the licensee shall harvest the crop not more than fifteen (15) days following the date of sample collection by the grower, unless an extension of the fifteen (15) day period is authorized in writing by DOAG. See the "Failure to Harvest with 15 days" section of this document.

Equipment

- Forms
- Pruning Shears
- Alcohol wipes to clean shears before each sample or bleach solution
- Paper sample bags
- Stapler
- Sharpie marker to write sample ID on bag
- Bucket to transport bagged samples
- Tamper Proof Seal
- Food Scale

Before Pre- Harvest Sampling

A licensed grower shall submit a complete and current Harvest Report form to DOAG within fifteen (15) days prior to intended harvest date and include the date and time information of the scheduled sampling. DOAG inspector may be present at the growing site during the grower's scheduled sample collection.

Pre-Harvest Sampling Procedure

1. The sampler must be trained.
2. Material selected for Pre-Harvest Sampling must be a representative sample of the plot.
3. Sampling equipment (pruning shears, etc.) must be cleaned before and after sampling each plot with either alcohol wipes or a bleach solution (using the diluting instructions on the bleach package) to prevent cross contamination between plots.
4. The sampler must choose one of the patterns most suitable for the field to be sampled (Figure 1 and Figure 2). The sampler must sample according to the pattern to the extent possible but may deviate from the pattern as necessary to account for particular field conditions and to ensure that all parts of the field are adequately and proportionately sampled to produce a representative sample. For small fields or when sampling from a known number of plants the Hypergeometric Table (Figure 3) shall be used.

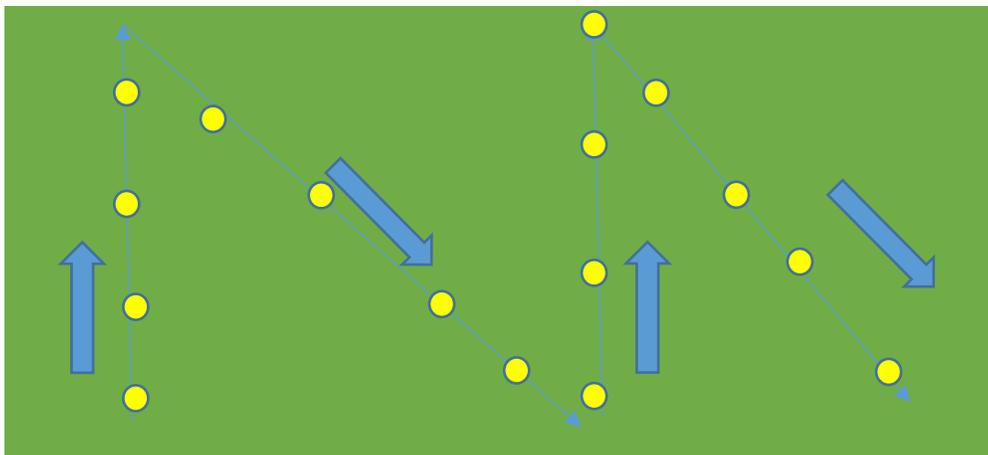


Figure 1. This is a typical sawtooth survey pattern starting in the lower “left” corner of the field. The yellow dots indicate the approximate locations to collect samples (number of samples depends on the number of plants – see chart below)

Total number of plants:	Select this number of plants to sample:
1-13	5 or all if less than 5
14-15	13
16-17	14
18-19	15
20-22	16
23-25	17
26-28	18
29-32	19
33-38	20
39-44	21
45-53	22
54-65	23
66-82	24
83-108	25
109-157	26
158-271	27
272-885	28
886-200,000	29

Figure 3. Hypergeometric Table for Random Sampling. For greenhouses and small fields, fewer individual plants may be sampled as indicated in the above table. Sampler shall employ sawtooth sample patterns. **Note: A total composite sample must be at least four (4) ounces (0.25lbs).**

5. Clip the top 2-3 inches (5.08-7.62cm) of hemp plant's primary stem, including the female floral material. A sample shall be obtained from flowering tops when flowering tops are present and shall be approximately 2-3 inches (5.08-7.62cm) in length. Samplers should avoid sampling dead, diseased, or mechanically injured plants. A sample shall consist of no more than one sample per plant, randomly chosen from the harvest lot.
6. Place each clipping in a paper sample bag. Since the samples are a measure of the entire harvest lot, all samples from the harvest lot must be collected in a single bag.
7. The total weight of the sample shall be no less than four (4) ounces (0.25lbs.)
8. Seal the bag by folding over the top at least once and stapling the bag shut.
9. Seal the sample with a tamper evident seal.
10. The sample shall be labeled, at a minimum:
 - the date and time the sample was collected
 - licensee name
 - license number
 - Plot ID and location where the sample originated
 - sample identification number or laboratory accession number.

Example: #1 Hemp Farm 1 Main St Anytown, USA License#
Sample Date June 1, 2019 10am, Sample# 01, Plot# 00000
11. Samples shall be kept in a secure, dry place until and during transportation to the lab.
12. A chain of custody form shall be completed.

Transporting Sample to Laboratory

1. During transportation of the sample, the sample must be sealed with a tamper evident seal, labeled with all the required information, a copy of the grower's license and a completed chain of custody form will be with the sample at all times.
2. The laboratory chosen by the licensed grower shall comply with the Public Act and Compliance Policy.
3. Licensee shall submit the pre-harvest sample to the laboratory within twenty-four (24) hours of sample collection.

Sample Results

The testing laboratory must be directed by the grower to report the results electronically to the licensee and to DOAG by email to AGR.Hemp@ct.gov within 24 hours upon the completion of the analysis.

Pass:

1. The licensee shall not harvest the crop until DOAG receives and approves the pre-harvest sample test results, and notifies the licensed grower in writing to proceed with the harvest.
2. The licensee shall harvest the crop not more than 15 days following the date of sample collection unless specifically authorized in writing by DOAG.
3. If the hemp crop is not harvested within fifteen (15) days of the date of the pre-harvest sample see the "Failure to Harvest within 15 days" section of this document below.

Fail:

1. A sample fails THC testing if the test report indicates that the sample contains an average THC concentration greater than 0.3 percent on a dry weight basis.
2. The licensee may voluntarily destroy the plot or lot represented by the sample, at the licensee's expense. A Destruction Report must be submitted.
3. The licensee may request permission from DOAG to harvest and for DOAG to conduct a post-harvest sample, provided the grower maintains control of the harvested crop represented by the sample and pays the fifty (\$50.00) dollar resampling inspection fee.
4. If the licensed grower fails to request a retest or to pay the resampling fee within fifteen (15) days of pre-harvest results by DOAG, then the pre-harvest sample test results shall stand, and DOAG order the licensed grower to destroy all hemp or other cannabis from the plot.
5. If the licensee fails to destroy all hemp or other cannabis from the plot within the specified time, the licensee shall be subject to sanctions pursuant to the Public Act.

Records

It is the licensee's obligation to keep records for a minimum of 3 years after harvest/ destruction of a crop which demonstrate that each harvested lot was sampled and tested.

Failure to Harvest within the 15 days

If the licensee fails to complete the harvest within fifteen (15) days of the date of the pre-harvest sample, the grower shall immediately report such fact to DOAG by email to AGR.Hemp@ct.gov . Include the reason for failure to timely harvest such hemp and their intentions from that crop.

1. The licensee may voluntarily destroy such plot which was not timely harvested, at the licensee's expense. The licensee shall submit the Destruction Report prior to destroying the plot. DOAG will review the destruction report prior to authorization of the destruction.
2. The licensee may request permission from DOAG to harvest.
 - I. Another pre-harvest sample will be taken by the grower, and if the THC is below 0.3% then the grower may request permission to harvest; or
 - II. The grower may request DOAG conduct a post-harvest sample inspection and test, provided the grower maintains control of the harvested crop and pays a fifty (\$50) dollar resampling inspection fee plus the cost of the test. The sample results from the sample taken by DOAG will be final.
3. If a grower fails to request permission to harvest then DOAG shall order the grower to destroy all hemp from the unharvested plot. The grower shall submit the Destruction Report prior to destroying the plot.
4. In the event the licensee fails to destroy all hemp from the plot within the specified time, such 's license shall be suspended and the grower shall not offer any hemp or hemp product for sale.

Harvested Hemp

Harvested hemp may be commingled with other hemp harvests from other plots, provided the plot ID for each location is maintained in the licensed grower's records.