

2022 Guidelines for Field Sampling of Industrial Hemp

Summary

These guidelines establish the procedure for entering an industrial hemp lot and collecting a plant sample that is representative of the industrial hemp lot. The guidelines also establish the procedure for collecting a representative sample of remediated biomass.

The goal of this sampling protocol is to ensure at a confidence level of 95 percent that no more than one percent of the plants in each lot will exceed the acceptable industrial hemp tetrahydrocannabinol level and ensure that a sample is collected that represents a homogeneous composition of the lot.

This practice does not purport to address all of the safety concerns, if any, associated with its use. The user of this standard shall exercise caution and follow applicable safety and health practices.

Terminology

“Department” means the Virginia Department of Agriculture and Consumer Services.

“Grower” means a person registered pursuant to subsection A of Va. Code § 3.2-4115 to grow industrial hemp.

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

“Remediated biomass” means the flowers, buds, trichomes, leaves, stalks, seed, and all plant parts of noncompliant hemp plants from the same lot that have been shredded.

“Sample” means the combined total number of specimens taken from industrial hemp plants in the lot.

“Sample specimen” or “specimen” means the inflorescence of the industrial hemp plant.

“Sampling agent” means a person (i) who has completed the U.S. Department of Agriculture’s sampling agent training and submitted documentation of completion of this training to the department and (ii) who is listed on the department-maintained list of sampling agents available on the department’s website.

“Stand” means a group or growth of industrial hemp.

“THC” means total delta-9 tetrahydrocannabinol.

Recommended equipment and supplies for sampling

- a. Garden pruners
- b. Paper sample bags
- c. Staples or security tape to seal the bags
- d. Permanent markers
- e. Sample collection forms that include a chain of custody form
- f. GPS unit or other tool to determine GPS location
- g. Disinfectant for tools
- h. Disposable gloves

Procedure to Sample an Industrial Hemp Lot

A sampling agent will enter a lot, strategically examine it, establish an approach for navigating the lot, and collect individual specimens from plants in order to obtain a representative sample of industrial hemp in the lot. Because test methodology requires small aliquots of material, care must be taken to provide samples that accurately reflect the entirety of the growing area.

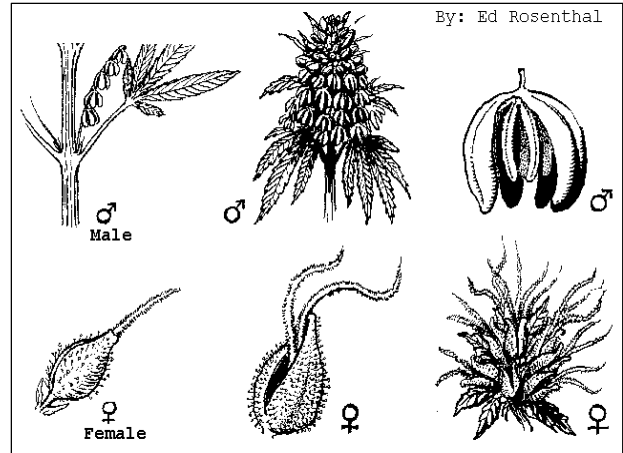
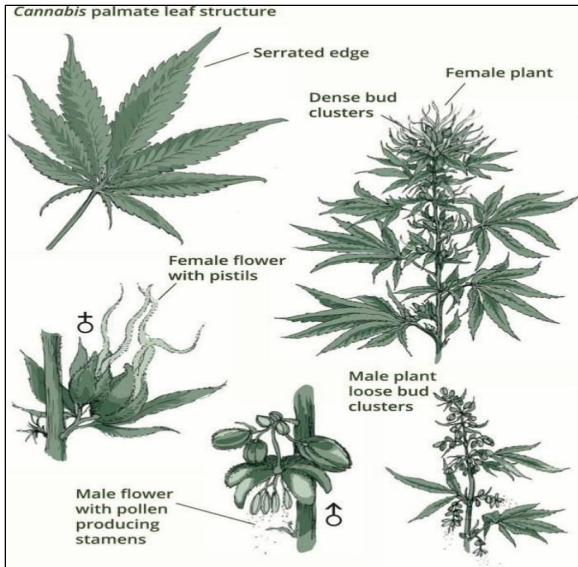
1. The grower or his agent shall accompany the sampling agent throughout the sampling process, if possible.
2. The sampling agent shall verify the GPS coordinates of the lot as compared with the GPS coordinates on the grower's registration. Record GPS coordinates of the lot on the sample collection form.
3. The sampling agent shall visually establish the homogeneity of the stand to establish that the lot is of like variety.
4. The sample must be collected within the 30 days prior to the anticipated date of harvest.
5. Each variety or cultivar must be sampled separately.
6. To sample a grower engaged in clone production, sample the mother plants, when in flower.
7. For lots of four acres or less, select four plants for cuttings to form a composite sample.
8. For lots larger than 10 acres, the number of plants that will be selected to form a composite sample is based upon the Codex Alimentarius Recommended Methods of Sampling for the Determination of Pesticide Residues for Compliance with MRLS *CAC/GL 33-1999*.

Table I. Total clippings to be taken per number of acres

N - Lot, acres	Total Clippings
1	4
2	4
3	4
4	4
5	5
6	6
7	7
8	8
9	9
10	10
15	15
20	18
25	24
30	28
35	32
40	36
45	40
50	43
75	60
100	75

9. When collecting samples from each lot, if possible, walk through the plants to randomly sample throughout the lot. If the stand is so dense that walking through it is not possible, walk access roads, drainage ditches, or other accessible paths that allow penetration into the stand for sampling away from the edge and for detection of plant growth differences.

10. While walking through the lot, the sampling agent shall cut inflorescences at random but convenient distances. Avoid collecting sample specimens from the borders of the lot. **When sampling floral varieties of hemp, sample from female plants only.**



11. The cut shall be made so as to collect approximately five to eight inches in length from the main stem, terminal bud, or central cola.



12. Record the sample number. The samples shall be identified using the following system for assigning sample numbering:

The sample number consists of:
 Industrial Hemp Grower Registration number (51-2022-xxx), sample number (xx) (starts with “01” and increases sequentially by one for each sample).

Example of Sample Number:

Grower Registration#	Sequential Sample#
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51_2022-001	01
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Record as: 51_2022-001-01

13. Each sample bag must state the following information:

Grower name and registration number

Sample Number

Date

Sampling agent name

14. Seal sample bag with labels, tape, or staples or security tape.
15. Complete Industrial Hemp Sample Collection Form provided by or approved by the department. Obtain signatures of the grower or responsible authority or agent.
16. Samples must be stored in an area that is locked and secure. Freeze samples if holding them for a day or more before delivering to the testing laboratory.
17. Clean tools between samples. Wear disposable gloves or clean hands between samples.

SAMPLE QUANTITY

The volume of plant material selected should reflect the size and volume of material being grown.

For very small plantings where individual or very limited numbers of plants of a variety are present, a minimum of two ounces (oz.) of plant material is required. The two-oz. sample may be used in cases where breeding projects are being inspected.

Procedure to Sample Remediated Biomass

1. The grower or his agent shall accompany the sampling agent throughout the sampling process, if possible.
2. The sampling agent shall collect a representative sample of the remediated biomass. The sampling agent should collect biomass material from various depths, locations, and containers in the labeled and demarcated area to collect a representative sample of the material.
3. The sampling agent shall collect, at a minimum, three standard measuring cups of biomass material. A sampling agent may collect more biomass material based on the requirements of the testing laboratory. If three standard measuring cups of biomass is not available, the sampling agent should collect enough biomass for a representative sample.
4. Record the sample number on the Industrial Hemp Sample Collection Form. The samples shall be identified using the following system for assigning sample numbering:

The sample number consists of:

‘REMED,’ Industrial Hemp Grower Registration number (51_2022-xxx), sample number (xx) (starts with “01” and increases sequentially by one for each sample).

Example of Sample Number:

Remediation Indicator	Grower Registration#	Sequential Sample#
REMED	51_2022-001	01

Record as: REMED-51_2022-001-01

5. Each sample bag must state the following information:

Grower name and registration number

Sample Number

Date

Sampling agent name

6. Seal sample bag with labels, tape, or staples or security tape.

7. Complete Industrial Hemp Sample Collection Form provided by or approved by the department. Obtain signatures of the grower or responsible authority or designee.

8. Samples must be stored in an area that is locked and secure. Freeze samples if holding them for a day or more before delivering to the testing laboratory.

9. Clean tools between samples. Wear disposable gloves or clean hands between samples.

INDUSTRIAL HEMP SAMPLE COLLECTION AND CHAIN OF CUSTODY FORM

One form per sample

Registration Number: _____

Sample Number: _____

Collection Date: _____

Approximate Area: (AC or Square Feet) _____

Sample Weight (Lab only): _____

Grower Name: Print Name _____

Grower Signature: _____

Grower Name: _____

Mailing Address: _____

Crop Address: _____

Grower Phone: _____

Date: _____

Variety Sampled:		Development Stage: Not flowering/Flowering/ Seed head
		Grown for: Fiber or Grain or Floral
Sample Location	From Permit:	
GPS Coordinates	From Inspection:	
Additional Comments:		

Sample Collected By:

Print Name: _____

Sampling Agent
Signature: _____

SUBMITTER DESCRIPTION
Include the number of containers and a physical description of each sample submitted for testing
Example: 1 paper bag with 4 tips

LABORATORY CHAIN OF CUSTODY FORM

Chain of Custody: Persons relinquishing and receiving evidence must provide their signature, organization, and date/time to document evidence transfers. Submitter, start with box number 1.

Relinquished By (Submitter)	Organization	Date/Time	Received by	Organization	Date/Time
Signature:			Signature:		
Print Name:			Print Name:		
			Sealed: [] Yes [] No		

Relinquished By (Submitter)	Organization	Date/Time	Received by	Organization	Date/Time
Signature:			Signature:		
Print Name:			Print Name:		
			Sealed: [] Yes [] No		

Relinquished By (Submitter)	Organization	Date/Time	Received by	Organization	Date/Time
Signature:			Signature:		
Print Name:			Print Name:		
			Sealed: [] Yes [] No		

Relinquished By (Submitter)	Organization	Date/Time	Received by	Organization	Date/Time
Signature:			Signature:		
Print Name:			Print Name:		
			Sealed: [] Yes [] No		

Relinquished By (Submitter)	Organization	Date/Time	Received by	Organization	Date/Time
Signature:			Signature:		
Print Name:			Print Name:		
			Sealed: [] Yes [] No		

LABORATORY USE ONLY

Laboratory Description of Sample	
Include the number of containers, identification number(s) and a physical description of each sample submitted for testing	
Signature:	Date:

Evidence Disposal		
To be completed by Laboratory Evidence Custodian		
Disposition Site:	Disposition No:	Method of Disposition:
Performed By:	Date:	
Witnessed By:	Date:	