U.S. Domestic Hemp Production Program

Hemp Sampling Training

Pursuant to the Interim Final Rule* issued by USDA Agricultural Marketing Service on October 31, 2019

*AMS-SC-19-0042 SC19-990-2 IR
Training Agenda

Part 1- Interim Final Rule Overview

Part 2- Roles: Sampling Agent & Producer

Part 3- Sampling Hemp Production Areas & Best Practices

Part 4- Chain of Custody / Sample Shipment
Part 1

Interim Final Rule (IFR) Overview
The term ‘hemp’ means the plant Cannabis sativa L. and any part of that plant, including the seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis.

SEC. 297A, 2018 Agricultural Improvement Act
Why is a Hemp Definition Critical?

A legal definition:

• Institutionalizes a quantifiable criteria for total THC.
• **Gives** oversight bodies a prescriptive measurement to assess statutory and regulatory compliance.
• **Provides regulatory consistency** to State, Tribal and USDA-licensed hemp producers.

Therefore, activities related to Hemp sampling must be consistently practiced to support fair regulation to promote stable industry growth.
Hemp Sampling Basics

State and Tribal Plans must indicate that hemp sampling methods:
• Require homogeneous samples representative of a lot.
• Are sufficient at 95 percent confidence level so not more than one percent of plants in a lot exceed the acceptable hemp THC level.

What is Sampled?
• Flower material sufficient for laboratory testing (generally, 1 gram).

When do Samples occur?
• 15 days or less from harvest.
Hemp Sampling Basics Continued

**During sampling the producer or authorized representative shall:**

- Be physically present with the sampling agent during collection activities.
- Allow the sampling agent access to all hemp or hemp products, and any land (including structures) used for growing, handling, and storage.

**Following sample collection by a sampling agent:**

- Samples must be sent/delivered to a laboratory registered by the US Drug Enforcement Agency (DEA) for Schedule I substance testing (for THC levels).
- Harvest may begin but it is the responsibility of producers to maintain harvested lots separately to prevent commingling or cross-contamination until the licensee receives the laboratory report.
Hemp Sampling Basics Continued

If a lot sample exceeds the acceptable hemp THC level:

• The lot must be destroyed; and
• Lot destruction must occur in accordance with the DEA’s Controlled Substance Act.
• Lot destruction procedure are required in State and Tribal plans.
Part 2
Understanding Roles: Sampling Agent and Processes
Hemp Sampling Roles and Processes

How does the sampling process begin?
• The licensed producer (or representative) must arrange for the collection of samples by a USDA-approved agent during normal business hours not more than 15 days prior to harvest.

Who are USDA-approved sampling agents?
• Personnel designated by USDA or USDA authorized Federal, State, local or Tribal law enforcement agency or a third-party organization and laboratory. This list is not exhaustive.

Who pays for sampling?
• The licensee is responsible for fees; fees may vary by State or Tribe.

Who is responsible for shipment of samples to the laboratory?
• The USDA-approved sampling agent is responsible for arranging shipment of hemp samples to DEA-registered laboratories.
Hemp Sampling Roles and Processes Cont.

Who provides samples to the laboratory?

- The sampling agent is responsible for arranging hemp transport to DEA-registered laboratories.

Where is a sampling location?

- A sampling location is known as a ‘lot.’

How is ‘lot’ defined?

- A ‘lot’ is generally considered an area in a field, greenhouse, or indoor growing structure containing the same variety or strain of cannabis throughout; the term ‘lot’ may also refer to a portion of a growing area that will be sold to a single buyer at a single time. A field of hemp may have multiple contiguous lots or be one large lot.
Who determines each ‘lot’?

- It is the responsibility of the producer to (i) identify the locations of hemp production and number of lots, and (ii) to report this production and land description to the Farm Service Agency.

Are samples homogenous?

- Sampling must represent a homogenous composition of a production lot, and must not be comingled with other lots.
Part 3
Sampling Hemp Production Areas And Best Practices
Hemp Sampling Best Practices During Site Visit

• **Self Identify:** You should have scheduled the sampling with the producers ahead of time. Announce yourself upon arrival at a hemp production site. Clearly explain to producer or representative that you are a USDA-approved sampling agent. Indicate your agency affiliation.

• **Confirm Host:** Clarify who will host you during the sampling activity.

• **Define Scope of Visit:** Clearly describe your sampling role and explain the process and equipment you use to conduct sampling.

• **Verify Lots:** Confirm hemp lot locations with GPS coordinates/maps.

• **Safety:** Ask producer of any safety concerns you need to be aware of at the production location.

• **Questions:** Allow producer opportunity to ask questions.
Hemp Sampling Equipment & Purpose

• **Shears/Pruners**: To be thoroughly clean between production lots.
• **Paper Bags**: New/unused; use 1 bag per lot sample (e.g. 2 lots, 2 bags).
• **Disposable Gloves**: Use only one set of gloves per lot (e.g. 2 lots, 2 pairs).
• **Security Tape**: Seal each bag to avoid cross-contamination of samples.
• **Permanent Marker**: Use to label the Lot #, license and other pertinent information on each Paper Bag.
• **Sample collection form**: Use to document collection activity.
• **GPS unit / areal maps**: Use to plan sampling route at production site.
**Hemp Sampling – Samples per Acre Up to 10 Acres**

<table>
<thead>
<tr>
<th>Number of Hemp Production (acres)</th>
<th>Sample Size N (“n” = 1 flower of 1 plant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 1</td>
<td>“n” = 1</td>
</tr>
<tr>
<td>1 ≤ 10</td>
<td>“n” is equivalent to the number of hemp samples</td>
</tr>
</tbody>
</table>

**Example Scenarios:**
- If a production lot is 2 acres, the sampling agent must collect 2 samples.
- If a production lot is 10 acres, the sampling agent must collect 10 samples.
Beyond 173 acres, the following formula will be utilized to calculate the number of samples “n” for a given lot.

\[
n = \frac{n_o}{1 + \left(\frac{n_o - 1}{N}\right)}
\]

See Sampling Guidelines

Hemp Field Navigation and Collection Practices

- Agents shall calculate “n” samples per lot based on production acreage for the lot.
- Agents should walk along crop rows whenever possible as to minimize crop disturbance.
- Sample shall only be collected by a USDA-approved sampling agent.
- Sample sizes must be sufficient for laboratory testing.
- Samples shall be taken by cutting just beneath the flowering material at the inflorescences. This cut will occur within the top 1/3rd of the plant.
- Samples shall be randomly chosen and collection from the border of a field or greenhouse facility discouraged.
- Samples of hemp plant material from one lot shall not be commingled with hemp plant material from other lots.
Hemp Field Navigation and Collection Illustration
(example only- please do not use this exact route)

Lot Entry  9 Acre Lot  Lot Exit

Border of Hemp Lot

- Field Route
- Sample Points
- Hemp Production Area
- Sampling Area
Hemp Collection Sample Illustration (example only)

- Sampling agent cuts from just beneath the flowering material within the top 3rd of hemp plant.
- Lab determines the volume/weight of material sampled
Hemp Lot Sample Labels During Collection

• Samples shall be placed directly into a new-unused brown paper bag.
• Once full or when a lot sampling size achieved, whichever occurs first, the bag shall be sealed. A lot may require multiple bags based on acreage.

Each lot sample must be labeled with the following information:

• Name and Contact Info of Producer and Sampling Agent
• Producer Hemp License or Authorization Number
• Sample Collection Date
• Sample Lot ID provided by Farm Service Agency
• Other Info required by State, Tribes, Law Enforcement, delivery service, or customer.
Hemp Sample Collection Acknowledgement

Maintaining a hemp sample collection acknowledgement is a best practice and useful for sampling agent and licensee

• A sample collection acknowledgement is useful to confirm the sampling activity between the sampling agent and the licensee prior to sample shipment to a laboratory. Otherwise, no records exist of a sampling activity.

• The licensee may request information for each sampled lot for recordkeeping.

• The same information appearing on the individually labeled lot samples.
Hemp Sample Collection Acknowledgement - Example

SAMPLING AGENT COLLECTION ACKNOWLEDGEMENT

1.打印授权生产者全名（PRINT AUTHORIZED PRODUCER FULL NAME），确认下表的采样活动和收集信息的准确性和完整性。
   
   签名：_____________ 日期：__________

2.打印批准的采样代理（PRINT USDA APPROVED SAMPLING AGENT），确认下表的采样活动、信息和数据的准确性和完整性。
   
   签名：_____________ 日期：__________

日期：__________

总数：__________

总数：__________

REMARKS/SKETCHES/COMMENTS: 评论应包括对估计平均高度、外观、密度、植物状况、成熟度（花/芽）的简短描述。
Part 4

Chain of Custody / Sample Shipment
Hemp Sample Transport

- All collected hemp samples may be mailable using USPS to a DEA-registered laboratory.
- Collected hemp samples may also be dropped off by the sampling agent to a DEA-registered laboratory.
- Test results are provided to the producer and USDA by the laboratory.
- Licensee may request retest of the samples by the laboratory.
For more information please visit: https://www.ams.usda.gov/rules-regulations/hemp

To Contact the Hemp Program:
E-mail: Farmbill.Hemp@usda.gov