

# 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

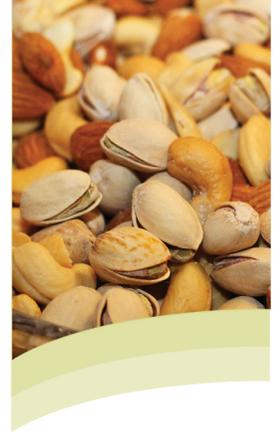
# Training Agenda

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

# IFR Farm Bill Origin

*“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.

# Hemp Sampling Roles and Processes Cont.

## *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

Number of Hemp Production (acres)	Sample Size N ("n" = 1 flower of 1 plant)
$\leq 1$	"n" = 1
$1 \leq 10$	"n" is equivalent to the number of hemp samples

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.

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

[See Sampling Guidelines](#)

Number of acres	Sample Size "n"						
11	11	40	36	75-76	61	119-120	86
12	12	41-42	37	77	62	121-122	87
13	13	43	38	78-79	63	123-124	88
14	14	44	39	80-81	64	125-126	89
15	15	45-46	40	82	65	127-128	90
16	16	47	41	83-84	66	129-130	91
17	17	48	42	85-86	67	131-132	92
18-19	18	49-50	43	87	68	133-134	93
20	19	51	44	88-89	69	135-136	94
21	20	52	45	90-91	70	137-138	95
22	21	53-54	46	92	71	139-140	96
23	22	55	47	93-94	72	141-143	97
24	23	56	48	95-96	73	144-145	98
25-26	24	57-58	49	97-98	74	146-147	99
27	25	59	50	99	75	148-149	100
28	26	60-61	51	100-101	76	150-152	101
29	27	62	52	102-103	77	153-154	102
30	28	63-64	53	104-105	78	155-156	103
31-32	29	65	54	106-107	79	157-157	104
33	30	66-67	55	108	80	159-161	105
34	31	68	56	109-110	81	162-163	106
35	32	69-70	57	111-112	82	164-166	107
36	33	71	58	113-114	83	167-168	108
37-38	34	72-73	59	115-116	84	169-170	109
39	35	74	60	117-118	85	171-173	110

Codex Alimentarius Recommended Methods of Sampling for the Determination of Pesticide Residues for Compliance with MRLS CAC/GL 33-1999.

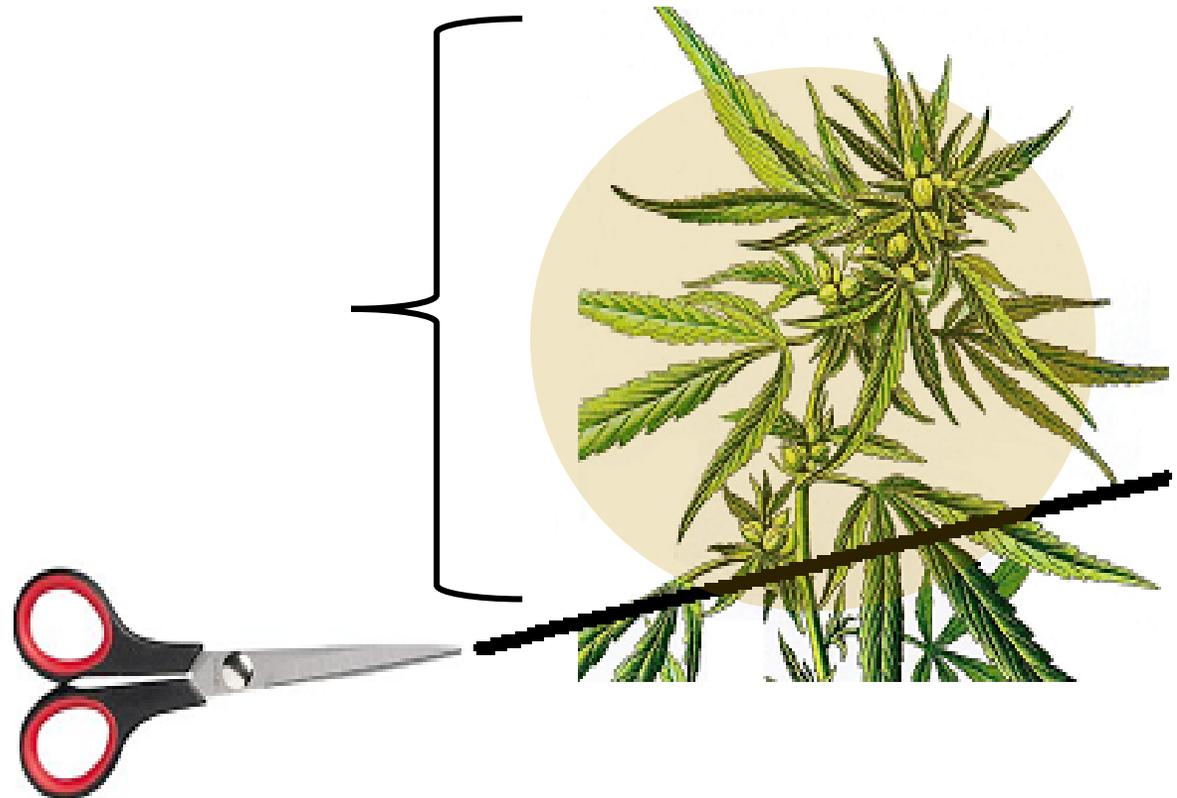
# Hemp Field Navigation and Collection Practices

- 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 1/3<sup>rd</sup> 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 Collection Sample Illustration (example only)

- Sampling agent cuts from just beneath the flowering material within the top 3<sup>rd</sup> 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.





## 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](mailto:Farmbill.Hemp@usda.gov)