



OREGON

- Oregon doesn't have any requirements other than they are registered and have their crop tested no more than 28 days prior to harvest showing 0.3% THC or less.
- How plants get to the farmer is up to them.

NORTH CAROLINA

NC State does maintain a list of seed/clone companies:

<https://industrialhemp.ces.ncsu.edu/seed-sources-for-planting/>

1.) Licensees who wish to import seed from abroad using the DEA import process must use true certified seed.

2.) Licensees who wish to import seed from within the United States must do the following:

a.) notify the Department of Ag BEFORE they bring propagative material into the state.

b.) Purchase from a person lawfully participation in an industrial hemp pilot program in another state (get a copy of their license, permit, registration, etc.)

c.) Have a lab test accompany the shipment showing that the seed/clones contain less than 0.3% THC

NORTH CAROLINA CONTINUED

From proposed temporary rules

(a) Approved seed or transplants for cultivating industrial hemp in North Carolina shall be from one of the following:

(1) Seed or transplants produced from seed or living plant parts that meet the criteria for Breeder, Foundation, Registered, or

Certified categories as defined by the North Carolina Crop Improvement Association, including certification by other seed agencies recognized by NCCIA.

(2) Seed or transplants produced lawfully under an industrial hemp pilot program within the United States provided that the seed or transplants have accompanying documentation of:

(A) being produced by a licensed grower within the state of production, and

(B) have accompanying documentation that the crop from which the seed or transplants were harvested had a THC analysis of 0.3% or less by dry weight.

NORTH CAROLINA CONTINUED

(b) Growers or other organizations in North Carolina may produce seed or transplants for distribution or sale for cultivation, if the source is overseen by NCCIA and certified by NCCIA to be true to type under American Organization of Seed Certifying Associations (AOSCA) guidelines. No other seed or transplants may be produced in North Carolina for distribution or sale in North Carolina.

(c) All seed or transplants produced in North Carolina for distribution or sale in North Carolina to be utilized for cultivation of industrial hemp shall include a certifying tag of varietal purity issued by NCCIA or another official certifying agency.

(d) A business entity, including an agricultural co-operative enterprise ("co-op") or other farm aggregator ("aggregator") who contracts with one or more permitted growers, may, upon registering with the Commission, obtaining any required permitting from the United States Drug Enforcement Agency, and pursuant to Federal and State law, obtain bulk quantities of seed or transplants approved under this Rule for distribution to permitted growers. A permitted grower may own and plant seed or transplants obtained from such registered op-ops or aggregators, who must document quantities delivered to each named grower within 10 days of delivery.

KENTUCKY

- KDA must approve all seed or plants entering the program;
- compliant testing results of the parent must be provided.
- KDA allows International Seed Imports and Out-of-State Domestic Seed/Propagule purchases.
- Seed/plants brought to KY must come from an entity licensed by their state's hemp program.
- Transporting across state lines is at your own risk. This interstate transfer is legal in KY, but other state's could seize in transit and charge with trafficking.
- Movement across state lines is supported by Federal Consolidated Appropriations Act of 2018.
- All planting materials must arrive at KDA for inventory and distribution.
- Performance of varieties/strains and their THC results are tracked.
- KDA Summary of Varieties List (86 varieties since 2014)

http://www.kyagr.com/marketing/documents/HEMP_LH_Summary-of-Varieties.pdf

COLORADO

- Colorado does not have any requirements for only using approved seed cultivars.
- There is a CDA Approved Certified Seed program. It follows the principles adopted by AOSCA but with a couple of caveats, the most major one being CDA will do the THC testing before approving a variety for certified seed production and we do not allow the breeder or grower to submit results.

PROPOSAL FOR CALIFORNIA

Approved seed and transplants for cultivating industrial hemp in California shall be from one of the following:

(1) Seed or transplants produced from seed or living plant parts that meet the criteria for Breeder, Foundation, Registered, or Certified categories as defined by the California Crop Improvement Association (CCIA), including certification by other seed agencies recognized by CCIA. All such seed and transplants shall include a certifying tag of varietal purity issued by CCIA or another official certifying agency; or

PROPOSAL FOR CALIFORNIA (CONT.)

(2) Seed or transplants produced lawfully under a state industrial hemp pilot program within the United States provided that the seed or transplants have accompanying documentation of:

- (A) being produced by a licensed grower within the state of production;
- (B) have accompanying documentation that the crop from which the seed or transplants were harvested had a THC analysis of 0.3% or less by dry weight;
- (C) no more than 10 vegetative propagules can be imported into the state;
- (D) vegetative propagules must go through a 30-day screened greenhouse quarantine overseen by the local Agricultural Commissioner's office and
- (D) material must be deep sequenced within 30 days for potential harmful pathogens.

PROPOSAL FOR CALIFORNIA (CONT.)

(3) Seeds and In-vitro plants may be imported from other countries under a DEA permit or USDA phytosanitary permit. The material must be accompanied with a

- (A) THC analysis of less than 1% THC;
- (B) plants must go through a 30-day screened greenhouse quarantine overseen by the local Agricultural Commissioner's office and
- (C) material must be deep sequenced within 30 days for potential harmful pathogens.

PROPOSAL FOR CALIFORNIA (CONT.)

(4) California Growers, breeders or other organizations in California may produce seeds or transplants for distribution or sale for cultivation, if the source from which the seed or transplants were harvested from had a THC analysis of 0.3% or less by dry weight.

DRAFT Industrial Hemp Sampling Guidelines for Testing for THC Content

A. Notification of Harvest Date –

1. Registrants should inform the [SAMPLER TBD] of the following information:
 - i. Harvest date
 - ii. Variety
 - iii. Location
 - iv. Authorized representative
2. Registrants should inform the [SAMPLER TBD] of any changes to the above information no less than 5 days prior to scheduled sampling.

Commented [KJ1]: Sampling entity needs to be determined (i.e., laboratory staff or county inspectors)

B. Sampling Timeframe – Sampling should occur no more than 30 days prior to harvesting.

Samples should be collected prior to any harvest or destruction of plants. The registrant should coordinate with the [SAMPLER TBD] on a date and time for the collection of the samples. Any changes to the harvest date may require additional testing prior to harvest.

Commented [KJ2]: Conflicts with existing statute: FAC § 81006 (f)(1)

C. Site Verification – [SAMPLER TBD] should verify collection site corresponds to registered location using GPS coordinates prior to the collection of samples.

D. Collection of Samples – Samples should be randomly collected by [SAMPLER TBD]. The registrant or an authorized representative should be present during the collection of samples and allow [SAMPLER TBD] access to all industrial hemp plants within the registered land area and all areas and facilities used for cultivation.

Commented [KJ3]: Definition or methodology for random selection should be specified

E. Sample Volume and Composition –

1. A separate composite sample should be taken for each plant variety.
2. A separate composite sample should be taken for the same plant variety grown both indoors and outdoors.
3. A separate composite sample should be taken for each non-contiguous field.
4. Each composite sample should consist of at least five samples from different plants of the same plant variety.
 - i. Samples should include the plant's stem, stalks, flowers, leaves, seeds, and buds (all parts intended to be included in the extraction process).
 - ii. Samples should not be taken from male plants.
 - iii. [SAMPLER TBD] should avoid collecting samples near field edges.
5. Any abnormal plants should be sampled individually.

Commented [KJ4]: Conflicts with existing statute: FAC § 81006 (f)(2)

F. Sample Handling –

1. Samples should be placed in a breathable bag (e.g. brown paper bag) and kept in a cool storage in a manner not conducive to mold.
2. Samples should be sealed in a manner to show evidence of tampering and labeled to show chain of custody. The chain of custody label should be signed by both the registrant or authorized representative and the inspector.
3. Samples should be labeled with identifying information
4. [DELIVERY TIMEFRAME]

Commented [KJ5]: A temperature or temperature range should be specified

Commented [KJ6]: Requirement for timeframe for delivery of sample to laboratory should be specified

G. [CONFIRMATION OF HARVEST]

Commented [KJ7]: Method for confirmation that harvest occurs within 30 days should be specified

DRAFT Industrial Hemp Testing Guidelines for THC Content

- A. **Sample Preparation** – Each composite sample should be dried and milled to a homogenous powder-like consistency. No plant parts should be removed during the sample preparation process.
- B. **Sample Storage** –
- C. **Testing** – Each composite sample should be tested separately for THC content by [APPROVED TESTING ENTITY].
- D. **THC Testing Method** – Samples should be tested for THC content using gas chromatography with a flame ionization detector.
- E. **Sample Retention** – Samples with THC levels less than 0.3% should be retained by the laboratory for 30 days. Samples with THC levels more than 0.3% but less than 1.0% should be retained for 60 days.
- F. **Sample Disposal** –
- G. **Notification of Test Results** – Registrants should be notified of test results within 10 days of sampling.
- H. **Retesting of Harvested Material** – Plantings harvested prior to notification of the test results could retest if registrant kept each variety in properly identified separate lots throughout the drying, milling, and storage process. Co-mingling with other plantings or varieties will result in [ACTION TBD]. Registrants should be able to submit new samples from the harvested material for retesting.

Commented [KJ8]: Should moisture content be addressed further, either here or in sampling guidelines?

Commented [KJ9]: Does particle size need to be further defined?

Commented [KJ10]: Conflicts with existing statute: FAC § 81006 (f)

Commented [KJ11]: Can the harvested crop be marketed/sold prior to receiving test results?

Commented [KJ12]: What action should be taken if harvested crops are co-mingled prior to receiving test results?

Commented [KJ13]: What is the process and what are the requirements for this?

[Note: In addition to the above, are specific requirements necessary for other laboratory SOP's regarding: cross-contamination, identification of samples, sample size, sample storage, sample disposal, etc.?)

Comment on sampling entity: laboratory staff of approved laboratory (approved by BCC/ISO 17025)

Comment on conflict with existing statute:

(Sampling should occur no more than 30 days prior to harvesting.)

Existing: "Sampling shall occur as soon as practicable when the THC content of the leaves surrounding the seeds is at its peak and shall commence as the seeds begin to mature, when the first seeds of approximately 50 percent of the plants are resistant to compression."

Comment of random selection:

Remove the word random.

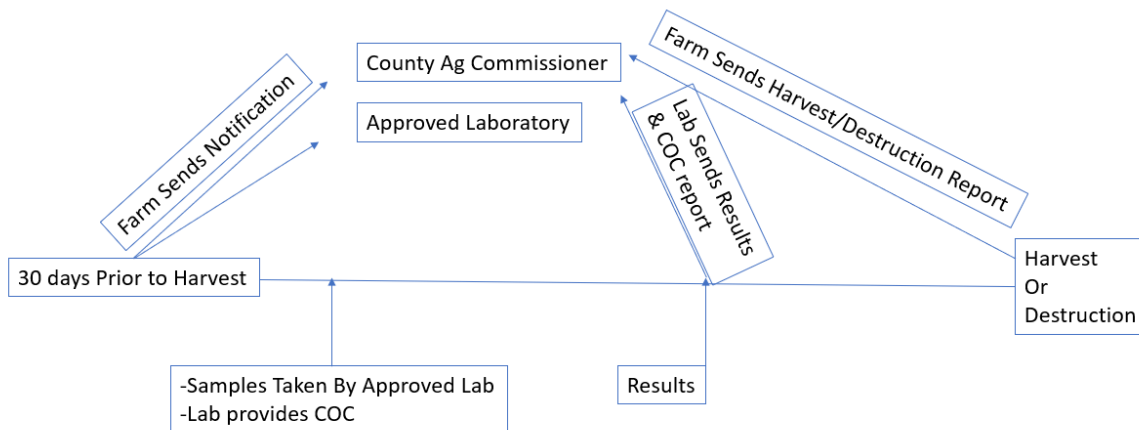
Comment of conflict with existing statute: according to SB 1409:

"The entire fruit-bearing part of the plant including the seeds shall be used as a sample. The sample cut shall be made directly underneath the inflorescence found in the top one-third of the plant."

Comment on temperature: 45-95F

Comment on timeframe of delivery: Same day

Comment of method for confirmation of harvest: Registrant must submit harvesting report 30 days prior to harvest to the county agricultural commissioner. Lab must submit results to county agricultural commissioner showing date of sampling to be within the 30-day window.



Comment on moisture content: Must not exceed 13% water content

Comment on particle size: 1 mm screen

Comment on harvesting prior to test report: No crop shall be marketed/sold prior to test results being received by the grower.

Comment on harvested co-mingled crop: In the event harvested crops are co-mingled prior to receiving test results:

1. If test results show content of all tested samples are less than 0.3%, the grower may market/sell the commingled crop.
2. If test results show at least one of the co-mingled crop batches are over 0.3%, there must be a retest of the homogenized material.
3. If all batches co-mingled are over 0.3%, there will be an opportunity of one re-test.

Cannabis testing laboratory SOP:

5305. Testing Sample (Blue represents edits made for Hemp)

~~(a) The distributor shall ensure that the batch size from which the sample is taken meets the requirements of this division.~~

(b) A distributor or an employee of the distributor shall be physically present to observe the laboratory employee obtain the sample of cannabis goods for testing and shall ensure that the increments are taken from throughout the batch.

- The permitted grower or employee the farmer shall be physically present to observe the laboratory employee obtain the same for testing.

(c) The sampling shall be video recorded with the batch number stated at the beginning of the video and a visible time and date indication on the video recording footage. The video recordings shall be maintained for 180 days.

-The sampling shall be video recorded with the batch number stated at the beginning of the video and a visible time and date indication on the video recording footage. The video recordings shall be maintained for 180 days.

(d) After the sample has been selected, both the distributor and the laboratory employee shall sign and date the chain of custody form pursuant to section **5709** of this division, attesting to the sample selection having occurred.

-After the sample has been selected, both the distributor and the laboratory employee shall sign and date the chain of custody form pursuant (example attached), attesting to the sample selection having occurred.

(e) A distributor shall not assist the laboratory employee nor touch the cannabis goods or the sampling equipment while the laboratory employee is obtaining the sample.

-The grower shall not assist the laboratory employee nor touch the cannabis goods or the sampling equipment while the laboratory employee is obtaining the sample.

5709. Chain of Custody (COC) Protocol – (Blue indicates additions made for hemp)

- (a) The laboratory shall develop and implement a COC protocol to ensure accurate documentation of the transport, handling, storage, and destruction of samples.
- (b) The COC protocol shall require the use of a COC form that contains, at minimum, the following information:
 - (1) Laboratory's name, physical address, and license number;
 - (2) Distributor's name, physical address, [GPS location](#), and license number;
 - (3) Unique sample identifier;
[-Approximate acreage of batch which to be sampled](#)
[-Variety of hemp for each sample](#)
 - (4) Date and time of the sample collection;
 - (5) Printed and signed name(s) of the distributor(s);
 - (6) Printed and signed name(s) of the sampler(s); and
 - (7) Printed and signed name(s) of the testing laboratory employee that received the sample.

Example Lab Chain of Custody Form

Notes: (additional on back)

Account Name: _____ Date Submitted: _____

Email address: _____ Total # Samples: _____

Phone Number(s): _____ Medical Cannabis Rec. Permit #: _____



Unique Sample Name	Sample Type	Standard Cannabinoid Analysis	Expanded Cannabinoid Analysis	Pesticide Analysis	Pesticide Analysis	Terpene Analysis	Microbe Other Analysis	Microbe Inhalable Analysis	Homog. Analysis	Category 2 Solvent Analysis	Category 2 & 1 Solvent Analysis
1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EXAMPLE

Acceptance of Custody:

Infinite Chemical Analysis Labs Rep.

By signing, I verify the information on this form is correct and acknowledge that the required sample size has been provided. All samples are held for 96 hours after reports are generated. Unless otherwise requested, all samples are destroyed following this

Release of Custody:

Client Signature

Standard Cannabinoids - delta-9-THC, THCA, CBD, CBDA, CBN, CBG, and CBGA
 Expanded Cannabinoids - Standard + THCV, delta-8-THC, CBC, CBDV
 Standard Pesticide - 19 compounds
 Category 1 Pesticide - 21 compounds (CA official test requirement as of January 1, 2018)
 Category 2 Pesticide - 45 compounds (CA official test requirement beginning July 1, 2018)
 Terpenes - 23 terpenes found in cannabis (CA official test req. beginning Dec. 31, 2018, if included on label)
 Microbial Other Than Inhalables - E. coli, Salmonella (CA official test requirement as of January 1, 2018)
 Microbial Inhalable - other + A. fumigatus, A. flavus, A. niger, A. terreus (CA off. test req. as of Jan. 1, 2018)
 Homogeneity - +/- 10% of reported value (CA official test requirement for edibles beginning Jan. 1, 2018)
 Category 1 Residual Solvents - 7 common solvents (CA official test requirement beginning July 1, 2018)
 Category 2 Residual Solvents - 14 common solvents (CA official test requirement as of Jan. 1, 2018)
 Please contact Infinite Chemical Analysis Labs for more information on any of the analyses.