

Industrial Hemp in North Carolina



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What is Industrial Hemp?

- *Cannibis sativa* L. with a post-decarboxylation delta-9 THC concentration of 0.3% or less.
- Many uses
 - Fiber/Hurd (stem/inner stem)
 - Food (seeds & oil)
 - Pharmaceutical extracts from floral bracts (subject to FDA regulations [CBD])



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Role of NCDA&CS

Research Stations

- receive industrial hemp seed shipments at secure storage site and assist Plant Industry Division with distribution to licensed growers
- work with researchers conducting work at NC Research Stations

Plant Industry Division

- Verify and process industrial hemp grower applications
- Maintain current DEA registration for NCDA&CS and acquire DEA import permits so licensed industrial hemp growers may order hemp seed from foreign sources and while overseeing industrial hemp seed distribution
- Collect license fees and transfer to the NC Industrial Hemp Commission
- Sample industrial hemp fields/greenhouses for THC levels and delivery to the Food and Drug Lab

Food and Drug Division

- Analyze Industrial hemp samples for THC levels and report to Plant Industry the findings

Agronomic Division

- Work with licensed industrial hemp growers to assist with agronomic issues with this crop



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RULES

- The Industrial Hemp Commission has adopted temporary rules:

02 NCAC 62.0101-.0109



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NC Industrial Hemp License Rules Highlights

- Must meet a research objective in cooperation with NCSU or NCA&T (as identified in statute).
- All plantings subject to THC sampling at any time with no prior warning.
- Verified Propagules
 - Seed
 - Clones from an IH plant from which THC testing confirms it meets the Federal law
- One- or Three-year license option.
- Must provide all locations, storage, and intended market.
- Fees
 - \$250 (<50 acres) or \$500 (>50 acres) initial fee.
 - \$250 annual fee, plus \$2/acre or \$2/1,000 sq ft of greenhouse.



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NC Industrial Hemp Program Information Websites

<http://www.ncagr.gov/hemp/>

<https://industrialhemp.ces.ncsu.edu/>



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Application Highlights

- *Name and address of Applicant
- *Duration of License 1 or 3 year
- *Intended planting location-address, GPS coordinates of acreage or greenhouse sq. ft.
- *Intended Market- Seed, Fiber, Flora parts
- *Written statement of research objective
- *Evidence of Farming Income (Taxes)
- *Storage Location-GPS Coordinates required
- *Attestations



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Felonies & Licensure

*Applicants shall disclose the date and location of any conviction of any criminal offense (other than misdemeanor traffic offenses) committed in any jurisdiction. Failure to comply with this requirement in a complete and truthful manner shall be grounds for denial, suspension, or revocation of a permit, as may be determined by the Industrial Hemp Commission.

- * The following applicants shall not be granted a permit:
- (1) Any applicants with any felony conviction in the prior 10 years or; or
 - (2) Any drug-related or controlled substance felony conviction at any time.
 - (3) Applicants that fail to complete the application process...



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NC Industrial Hemp License Example

2021

North Carolina Industrial Hemp Commission
Thomas Melton, Chair of the Commission
License Document

Application ID

NOT TRANSFERABLE
Statute 106-50

LICENSE TYPE:	Industrial Hemp - Research With Intent to Market
DURATION:	Three Years
EXPIRATION DATE:	06/25/2021
ISSUE DATE:	06/25/2018

LICENSEE
OR
CERTIFICATOR



Thomas A. Melton

Thomas Melton, Chair of the Commission

THIS LICENSE MAY BE SUBJECT TO REVOCATION OR SUSPENSION AS PROVIDED BY LAW



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2017 Industrial Hemp Seeds and Plants

- Started in early 2017 to acquire Industrial Hemp Seed
- DEA issues Import Permits –April 5, 2017
- May 2017- NC Attorney General issues an advisory letter stating movement across state line within state research programs was allowed by the Farm Bill



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Industrial Hemp Seed and Plant Sources 2017-18

- International
 - Italy
 - Canada
 - Czech Republic
 - Lithuania
 - France
- Domestic*
 - North Carolina
 - Oregon
 - Colorado
 - Kentucky
 - Tennessee

*Shipping industrial hemp is illegal according to the DEA; this is falling under the Advisory Letter.



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Plant Industry Division Sampling

- Conduct Sampling of Industrial Hemp Fields for THC levels with the assistance of 9 Seed and Fertilizer Specialists along with the Seed and Fertilizer Field Supervisor



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Industrial Hemp Field Sampling



Industrial Hemp Field Sampling

- Per the adopted Temporary Rules licensees must notify the NCDA&CS at the initiation of floral buds.
- To notify the NCDA&CS about sampling the licensee should email industrialhemprequests@ncagr.gov or go to the following webform:
<https://apps.ncagr.gov/agrsysportal/industrialhemp/samplerequest>



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<https://apps.ncagr.gov/agrsysportal/industrialhemp/samplerequest>

NC Industrial Hemp Sample Request Form

Please note:

- For multiple counties, please submit a form for each county.
- If more than 3 varieties are flowering, submit an additional form as needed.
- **Variety photos:** Clear/close-up of side view of the blooming inflorescence. For further information on photos, please click [here](#).

Licensee Name	<input type="text"/>
Contact Name	<input type="text"/>
License Number	<input type="text"/>
Preferred Email	<input type="text"/>
Preferred Phone	<input type="text"/>
Flowering County	ALAMANCE <input type="button" value="v"/>
Harvest Date	<input type="text"/>
Initiation of Flowering Date	<input type="text"/>



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Industrial Hemp Field Sampling

- The early notification is to allow for the scheduling of sampling.
- Sampling will occur 3-5 weeks into flowering.
- This level of maturity will be more indicative of the THC levels obtainable by the plant without end of flower spiking.



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Industrial Hemp Floral Maturity



Initiation of Buds

Appropriate Maturity



Late/Over Mature



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Industrial Hemp Field Sampling

- If a licensee has more than one variety then all of them should be tested.
- If they mature at the same time they can be tested as one lot or separately at the licensee's discretion
- Inspector's will come out multiple times if need be.



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Sample Collection

- Samples can be for a variety, the whole farm, a field of comingled varieties etc.
- Top 3-5" of the plant, specifically the flowers/inflorescences/buds because THC content is highest in these plant parts.
- Plants randomly selected among field or greenhouse



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Sample Collection

- The number of buds sampled will depend on the overall sample size.
- The more acreage, the more plants need to be sampled to get a “representative” sample.
- In the case of small acreage or greenhouse setting, 10 plants is a standard number of samples



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Sample Collection

- In a greenhouse situation, with say 40 plants we would opt to take less material from more plants.
- This would minimize the damage to any one plant while still obtaining the necessary amount of material and number of samples to be representative.



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Industrial Hemp Compliance Testing

- North Carolina started and still tests using the GC-FID which decarboxylates THCA into delta-9 THC.
- The bulk of testing is done by a private lab that we have a contract with, allows for more samples and faster turnaround.
- However, if a sample tests above the legal limit, then a State laboratory will run a confirmation test.
- Regulatory actions for samples above the limit are based upon State Laboratory testing.



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2017 Industrial Hemp Sampling Results

- 135 Industrial Hemp regulatory samples collected in North Carolina
- 14 Industrial Hemp regulatory samples tested above the 0.3% limit



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2018 Industrial Hemp Sampling Results

- 437 Industrial Hemp regulatory samples collected in North Carolina
- 47 Industrial Hemp regulatory samples have tested above the 0.3% limit



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Current Industrial Hemp Program Participants

- 585 Licensed Industrial Hemp Growers
- 7189.27 Licensed Field Acres
- 3,250,094 Licensed Square Feet of Greenhouse production



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2018 Farm Bill Details

- **Nothing affects or changes what is currently in the Food, Drug and Cosmetic Act.**
- **Allows states to regulate hemp production based on a state or tribal plan submitted to USDA.**
- **Plan must include – info on locations of hemp production, testing for THC, disposal of plants.**
- **States can put more restrictive parameters on the production of hemp but cannot alter the definition of hemp or put in place less restrictive policies.**
- **The Secretary must approve plans within 60-days. The final decision is made by the Secretary, but the Secretary must consult with the Attorney General.**
- **The Secretary has the authority to audit plans' compliance.**

2018 Farm Bill Details

- **The Secretary must provide technical assistance to states/tribes on plans.**
- **Any person convicted of a felony relating to a controlled substance cannot participate for a 10-year period following the conviction date – however, if they are already lawfully participating in a state hemp pilot project prior to the enactment of this bill, they can continue.**
- **USDA must develop a plan for those states that do not submit their own plan.**
- **USDA will keep and maintain “real-time information” regarding licenses.**
- **Encourages USDA to enter into a MOU with law enforcement.**
- **USDA will issue rules/guidelines, in consultation with the Attorney General.**

Contact Information

Phil Wilson –Director, Plant Industry Division
919-707-3732 (O), 919-920-1316 (Cell) or
phil.wilson@ncagr.gov

Brian Bowers, Administrator, Seed and Fertilizer Section
919-707-3756 or brian.bowers@ncagr.gov

Paul Adams, Seed and Fertilizer Field Supervisor, Seed and Fert.
Section Phone: 910-604-1276
Paul.Adams@ncagr.gov or industrialhemprequests@ncagr.gov



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Important Email Addresses

- Industrialhemprequests@ncagr.gov
- Industrialhempprocessor@ncagr.gov

QUESTIONS?



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