



# Production of Organic Industrial Hemp, *Cannabis sativa*, in West Virginia



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## Introduction

Industrial hemp is a type of *Cannabis sativa* that has less than 0.3% total tetrahydrocannabinol (THC), the primary psychoactive compound found within the species. Historically, varieties of hemp were used in the production of commercial goods such as rope, textiles, paper, food and animal feed. Cannabis was first described by Carl Linnaeus in 1753.

***sativa* is a Latin biological adjective that means "cultivated often" and is associated botanically with plants that promote good health or designate certain seed-grown domestic crops.**

After World War II, there was a significant decline in demand for hemp products as well as an escalation in stereotyping and criminalization of marijuana type *Cannabis* which ultimately ended in decades-long US prohibition of all members of the species. Marijuana types of *Cannabis* are described as varieties with greater than 0.3% total THC.

The 2014 Farm Bill allowed for establishing state pilot programs in conjunction with research institutions. The 2018 Farm Bill allowed further progress and removed hemp types of *Cannabis sativa* as a Schedule I drug under the Controlled Substance Act, effectively recognizing hemp as a legal crop again and partially ending prohibition of the species. West Virginia has been at the forefront of this movement.

Today, hemp crops are grown for a wide range of new commercial markets. Fiber hemp varieties are used in the manufacturing of biodegradable plastics, building materials, as well as the traditional textile, food and feed purposes. High-cannabidiol (CBD) varieties are grown for the therapeutic value of their non-psychoactive cannabinoid and terpene molecules.

## WVU Hemp Research

With the passage of the 2018 Farm Bill, industrial hemp crops became federally legal, opening the doors to funding and research opportunities. Currently, there are several novel research projects focused on industrial hemp at WVU.

- **Dr. Michael Gutensohn** is studying environment factors could lead to an accumulation of THC in hemp crops.
- The susceptibility and yield loss due to root knot nematode in hemp crops is being examined by **Dr. Jim Kotcon**.
- **Dr. Louis McDonald** is observing soil fertility and heavy metal uptake of hemp crops.
- The research of **Dr. Mahfuz Rahman** focuses on pathogens and diseases effecting hemp crops in West Virginia.

The data collected from these studies will be used to help West Virginia's farmers produce desirable high-quality, high-value crops, address production problems and hurdles, as well as properly manage pests in industrial hemp crops.

*"It's actually very surprising how little is known about it. Even simple things that we all know about from other crop systems, we don't know when we talk about industrial hemp. There wasn't much research done before, but now we've received funding for such an evolving and emerging crop system and research field."*

-Dr. Michael Gutensohn



## Organic Certification of Hemp

Along with funding and research opportunities that came with the passage of the 2018 Farm Bill, organic certification of hemp crops was permitted.

***"for hemp produced in the United States, only hemp produced in accordance with the U.S. Domestic Hemp Production Program and/or the Farm Bill may be certified as organic, if produced in accordance with USDA organic regulations."***  
- National Organic Program (NOP)

### Who can certify my hemp crop?

OEFFA (Ohio Ecological Food & Farm Association)  
MOSA (Midwest Organic Services Association)  
PCO (Pennsylvania Certified Organic)

### What is required for certification?

1. The hemp crop must be produced in accordance with the state and/or USDA hemp program regulations to be certified as organic.
2. Proper licensing must be obtained and maintained through a USDA approved state program.
3. Documents regarding licensing must be present at inspection.

## WV Hemp Program

To grow or possess industrial hemp in its raw form, an industrial hemp license is required. This license covers listed locations and activities pertaining to cultivating, harvesting, and storing as well as currently processing the raw industrial hemp crop.

### Required Licensing Documents:

1. Completed state application. Applications are accepted **only** during the designated application time period. For a 2022 WV Hemp Cultivators License, applications will be accepted **Sept. 1–October 31**.
2. Federal and State background check and fingerprinting.
3. Property deeds (or signed lease agreements) for land being utilized for hemp production, drying, and storing.
4. Aerial photograph of property being used for activities in hemp cultivation.

### Fees:

Application fee: \$100 for each non-contiguous locations  
License fee: \$100.00 + \$5.00 per acre of all properties applied