

Organic and Sustainability Certifications in the Industrial Hemp Industry

Bridgett Connolly, Sponsored by Professor Suzanne Palmer
Albright College

Introduction

Hemp and marijuana are both the plant species *Cannabis sativa*. The variations of the plants can be virtually identical to the eye.

Industrial hemp is distinct from marijuana in that it contains less than 0.3%, on a dry weight basis, of delta-9 tetrahydrocannabinol (THC), the psychoactive



component of marijuana. Hemp was grown in the United States from colonial times, and its fiber is used for rope and clothing. In 1937 *Cannabis sativa*, regardless of THC level, became illegal in the United States, when it was added to Schedule I of the Controlled Substances Act. Recently there has been federal deregulation of hemp and it is commercially available for use in all types of consumer and industrial products. In this context, aspects of industry self-regulation will become important as producers and consumers have the expectation of certifications related to the manner in which the consumer product was derived and its underlying ingredients produced, thus, organic and sustainability certifications.

Regulations

Hemp and its sibling marijuana were made illegal in the U.S. in 1937. On February 7, 2014, President Barack Obama signed into law the Agricultural Act of 2014 also known as the 2014 Farm Bill. Though this law did not remove industrial hemp from federal controlled substance schedules, it provided that while still following current federal laws and applicable state laws, an institution of higher education or a State department of agriculture are allowed to grow Industrial Hemp for purposes of an academic or agricultural research program. Guidelines for state programs were issued in 2016 by the Drug Enforcement Agency, U.S. Department of Agriculture and Food and Drug Administration. States responded, and in 2017, hemp cultivation for research purposes became legal in Pennsylvania.

Federal law again changed at the end of 2018, when President Donald Trump signed into law the Agricultural Improvement Act of 2018, also known as the 2018 Farm Bill. This bill specifically defined Hemp to include:

- 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 [delta-9 THC] concentration of not more than 0.3 percent on a dry weight basis (7 U.S.C. §1639o).

Cannabis which does not meet the above definition of Hemp is considered marijuana and remains regulated by the DEA under the Controlled Substances Act ("2018 Farm Bill Primer: Hemp Cultivation and Processing," 2019).

In addition to technically distinguishing industrial hemp from marijuana, the 2018 Farm Bill added hemp to the list of agriculture commodities and removed hemp from the Controlled Substances Schedules ("2018 Farm Bill Primer: Hemp Cultivation and Processing," 2019). Thus, Hemp is now an agricultural commodity, subject to regulation by the USDA.

Certifications

Certifications can be used for different parts of the hemp lifecycle. The end of the lifecycle varies as well as the labeling by the certifications whether that be the whole product, the ingredients, or a portion of the ingredients. Hemp produces hemp fibers, CBD and other cannabinoids. Hemp fiber can be used for construction, insulation, textiles, auto parts, bioplastics, and prosthetics. CBD can be used in cosmetics, food and beverages, and medicine. It is popular for its anti-inflammatory properties. CBD oil is currently the main focus of the hemp industry. The FDA regulates CBD as a drug; therefore, it is prohibited for use in food. Some states, including Pennsylvania take a hands-off approach to CBD in food products. The certifications researched were USDA Organic, OneCert, US Hemp Authority, Fair Trade and, Non-GMO Project. All these certifications require third party verification so that each product and process can be examined objectively. Sustainability certifications are vital for ensuring transparency and accountability for the supply chain.



USDA Organic uses the National Organic Program (NOP) to accredit third parties. The National Organic Program operates under the USDA and certifies companies to verify organic practices. These third parties certify the product's in depth Organic System Plans (OSP) given by the business. This certification ensures that the inputs are organic. It also prohibits the use of unsustainable practices such as genetic engineering, ionizing radiation and sewage sludge. Imported hemp has always been able to be USDA certified; now, American-grown hemp has the opportunity to become certified organic as well organic ("Organic Hemp Certification," 2020). The general requirements for Hemp consist of compliance with a US Domestic Hemp Program and/or 2014 Farm Bill and USDA organic regulations (USDA, 2019). Delta-9 THC level needs to be tested below 0.3% on a dry weight basis (USDA, n.d.). Quality assurance must be ensured by the testing laboratory. The laboratories need to be approved for THC testing and be registered with the DEA to handle controlled substances. All results from the laboratories are sent to the applicant and the USDA (USDA, 2020). Seeds and seedlings need to be organically grown. It may be treated with synthetic substance if listed on the National List or required by Federal or State regulations. If the final product is certified organic, the official seal can be used on the front and read organic on the principal display label ("Organic Labeling," n.d.). If less than 95% of the ingredients are organic, the seal cannot be used and the word organic cannot be on the display label. If 100% of the ingredients are certified organic it can be labeled 100% organic next to the seal ("What's Behind the Organic Seal? Organic Labels Explained," n.d.).



OneCert provides multiple organic certification options. OneCert offers different certifications for producer/handlers, textiles, and food safety. OneCert, Inc. is accredited by different certification organizations including NOP and American Equivalency Programs. Its international company, OneCert International, certifies European Organic, Japanese Agriculture Standards, Food Safety Management System, Global Organic Textile Standards, Textile Exchange, and more. The last company in the trio, OneCert Asia, contains the Indian National Programme for Organic Production, NOP, and the Swiss Ordinance. OneCert sets international organic standards that include USDA Organic and additional organic standards from across the globe. The US NOP standards are set as a base standard. The European Regulation, Japan Agricultural Standards, and India National Standards for Organic Products are the additional program requirements. With the OneCert certification, OneCert can certify applicable organic certifications ("International Organic Standards," 2020). The global standards that are synthesized into the OneCert certification are to aid exporting to countries that are major organic importers. This certification is vital for companies looking to expand business globally. There are no laws restricting the exportation of hemp ("Organic Hemp Certification," 2020). An export permit is still necessary to export hemp. However, some countries still label hemp illegal which restricts exportation to those countries (US Hemp Authority, n.d.). This certification is vital for companies looking to expand business globally.



The US Hemp Authority is funded by the US Hemp Roundtable and backed by other important industry groups such as Hemp Industries Association. It provides certification to growers and processors, and brand owners. Training courses are available for businesses to ensure smooth sailing through the certification process. The core concepts of the courses are management systems, manufacturing records, ISO quality standards, current good manufacturing practices, employee training for best practices, and good agriculture practices, all of which are the backbone of the US Hemp Authority certification (US Hemp Authority, n.d.).



The applicable Fair Trade certification for domestic hemp is Fair Trade USA. The applicable Fair Trade standards are Agricultural Production Standards, Trade Standards, and Apparel and Home Goods Standards. These Fair Trade Standards specify sustainable practices in all aspects of the supply chain. For example, the Agricultural Production Standards require empowerment of small producers and workers, fundamental workers' rights, fair and equitable wages and ecologically sustainable farming practices. Fair Trade Standards provide for traceability of Fair Trade certified goods.



Non-GMO Project has become a highly recognized certification because of the trend to opt-out of Genetically Modified Organism products within the past few years. North America is the only country with a third-party verification for non-GMO food and products. Non-GMO Project ensures that the ingredients are not genetically engineered through the Product Verification Program (PVP). There is no credible long-term feeding studies that determine the danger or safety of genetically modified foods so the choice to opt out of GMOs is an act of precaution taken by many. This trend has been increasing throughout the past few years. The Non-GMO Project also offers a Marketing and Communications team to aid in the promotion of certified products (The Non-GMO Project, n.d.).

Conclusion

In response to the change in federal law, Pennsylvania, in early 2019, eased the restrictions on the growing of hemp to allow for commercial production. Within this industry, regulatory issues are widespread at all levels, from licensing of growing land and production facilities (USDA and PA) to use of derivatives such CBD oil in food and other orally ingested products.

In our research, we noted that issues abound related to seed certification and cross pollination; varieties of hemp are not yet standardized. All the certifications we researched require third party verification so that each product and process can be examined objectively. Sustainability certifications are important for ensuring transparency and accountability for the supply chain especially due to the rapid growth and lack of regulations of the industry.

For all involved in the hemp industry, there is still a learning curve. There is little research on the best ways to grow and process hemp including what fertilizers to use, what strains will have the greatest fertility and which strains will continuously produce higher levels of THC than legally allowed. There are also many laws and regulations that still need to be created and put into place regarding hemp.

References

- Agricultural Marketing Service, USDA. (n.d.). Organic Labeling. Retrieved February 5, 2020, from <https://www.ams.usda.gov/rules-regulations/organic/labeling>
- Agricultural Marketing Service, USDA. (n.d.). What's Behind the Organic Seal? Organic Labels Explained. Retrieved February 5, 2020, from <https://www.ams.usda.gov/publications/content/whats-behind-organic-seal-organic-labels-explained>
- Congressional Research Service (2019, June 21). Hemp-Derived Cannabidiol (CBD) and Related Hemp Extracts. Retrieved February 6, 2020, from <https://crsreports.congress.gov/product/pdf/IF/IF11088>
- Congressional Research Service (2019, January 30). 2018 Farm Bill Primer: Hemp Cultivation and Processing. Retrieved February 6, 2020, from <https://crsreports.congress.gov/product/pdf/IF/IF11088>
- Imoto. (2020, January 15). What is CBD? Retrieved April 12, 2020, from <https://www.imototech.com/what-is-cbd>
- OneCert. (2020, January 24). International Organic Standards. Retrieved February 5, 2020, from https://www.onecert.com/Documents/OneCert_Standards.pdf
- OneCert. (2020, January 7). Organic Hemp Certification. Retrieved February 6, 2020, from <https://onecert.com/hemp/>
- Pennsylvania Department of Agriculture. (n.d.). Industrial Hemp. Retrieved February 4, 2020, from https://www.agriculture.pa.gov/Plants_Land_Water/industrial_hemp/Pages/default.aspx
- The Non-GMO Project. (n.d.). Non-GMO Project Standard. Retrieved February 5, 2020, from <https://www.nongmoproject.org/product-verification/the-standard/>
- USDA. (2019, November 26). Instruction: Organic Certification of Industrial Hemp Production. Retrieved February 5, 2020, from <https://www.ams.usda.gov/sites/default/files/media/NOP%202040%20Hemp%20Instruction.pdf>
- USDA. (n.d.). Testing guidelines for Identifying Delta-9 Tetrahydrocannabinol (THC) Concentration in Hemp. Retrieved February 5, 2020, from <https://www.ams.usda.gov/sites/default/files/media/TestingGuidelinesforHemp.pdf>
- US Hemp Authority. (n.d.). US Hemp Authority. Retrieved February 5, 2020, from <https://www.us hempauthority.org>

Acknowledgements

Professor Palmer
McAllister Fund
Albright College-Albright Creative Research Experience- Intern 2020
Kim Justeson