# Scientists Approve Official Method of Analysis for Cannabinoids in Hemp

*AOAC INTERNATIONAL Expert Review Panel approves an analytical method for detecting and measuring cannabinoids in hemp*

ROCKVILLE, MD, US, April 23, 2020 /EINPresswire.com/ -- AOAC INTERNATIONAL announced today that a liquid chromatography–diode array detection (LC-DAD) method previously approved as Official Method of Analysis 2018.11 for cannabinoids in Cannabis plant materials, concentrates, and oils, is now approved for hemp.

“Until now, no globally recognized method for validating the potency of hemp was available to laboratories,” said Scott Coates, Program Lead for AOAC’s Cannabis Analytical Science Program (CASP).

The new validation and approval will allow laboratories to evaluate hemp for tetrahydrocannabinol (THC) on a dry-weight basis, as described by the U.S. Department of Agriculture’s Interim Final Rule governing the production of hemp under the 2018 Agriculture Improvement Act, known as the Farm Bill. A fundamental requirement of the program is testing for THC levels.

Cultivation and consumption of cannabis has been decriminalized in many U.S. states in recent years in both low-THC form (hemp) and high-THC form (marijuana). However, at the federal level marijuana remains a Schedule 1 controlled substance. Plant materials containing no more than 0.3% THC are defined federally as hemp and can be processed to supply the expanding market for CBD consumer products.

Official Method of Analysis 2018.11 is a liquid chromatography–diode array detection (LC-DAD) technique with optional mass spectrometric detection of Δ9-tetrahydrocannabinol (Δ9-THC) and tetrahydrocannabinolic acid (THCA) individually, so their concentrations can be reported either individually or as total THC.  Official Method of Analysis 2018.11 is applicable to concentrates, oils, and all plant materials of Cannabis sp., including hemp.

The method was developed within a collaborative project between Eurofins Food Integrity & Innovation (Madison, WI, USA) and University of Chemistry and Technology (Prague, Czech Republic), which was led by Dr. Katerina Mastovska.

With modification to include a procedure for sample dry weight determination, Official Method of Analysis 2018.11 was approved for hemp testing by an AOAC Expert Review Panel chaired by Melissa Phillips, Research Chemist at the U.S. National Institute of Standards and Technology (NIST), following a rigorous months-long review and validation process.

"The performance of this method has been demonstrated thoroughly, and laboratories in the hemp industry can confidently implement this straightforward method for determination of total THC on a dry-weight basis," said Phillips.

The method was evaluated against requirements of Standard Method Performance Requirement (SMPR) Quantitation of Cannabinoids in Plant Materials of Hemp (Low THC Varieties Cannabis sp.). This standard was developed by CASP in 2019 and is referenced in the U.S. Department of Agriculture Hemp Program's Interim Final Rule guidance as the recommended standard for laboratories to meet when selecting a method for analyzing THC levels.

Official Methods of Analysis of AOAC INTERNATIONAL are microbiological and chemical analysis procedures that have undergone rigorous formal validation by AOAC INTERNATIONAL. After a two-year tracking period, "First Action" methods are reviewed for approval as "Final Action" methods, which are published in the Official Methods of Analysis of AOAC INTERNATIONAL, a globally recognized standards resource for analytical scientists.

About AOAC INTERNATIONAL

AOAC INTERNATIONAL is a globally recognized, 501(c)(3), independent, third party, not-for-profit association and voluntary consensus standards developing organization founded in 1884. When analytical needs arise within a community or industry, AOAC INTERNATIONAL is the forum for finding appropriate science-based solutions through the development of microbiological and chemical standards. The AOAC Official Methods of Analysis database is used by food scientists around the world to facilitate public health and safety and to promote trade.

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