

Template for comments

Date: 12/16/19	Document: : Approval of 173i88r1 - Hemp	Standard: NSF/ANSI 173
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Name	Clause/ Subclause	Paragraph #/ Figure/ Table/	Type of comment ¹ (ge, te, ed)	Comments	Proposed change	Response from JC or TG/Plan of Action
Gormley - Negative			Editorial/su bstantive	As per A Modern State-Federal Framework for a Regulated U.S. Cannabis Industry , in 1753 Carl Linnaeus named the plant species <i>Cannabis sativa</i> L, noting its habitat as India. Thirty years later, Jean-Baptiste Lamarck described a related species as <i>Cannabis indica</i> Lam. (Indian hemp). A listing for Extractum Cannibis (alcohol extract of the dried flowering hops of <i>Cannabis sativa</i> , variety <i>Indica</i>) appeared in the USP's Materia Medica in 1850. Twenty years later, there was an entry for Cannabis Americanae (the flowering tops of <i>Cannabis sativa</i> cultivated in North America) and an entry for Cannabis Indicae (the flowering tops of the female plant of <i>Cannabis sativa</i> , variety <i>Indica</i> from India). It seemed that, for trade purposes, the industry felt it important to designate the domesticated/cultivated species in the US to supply pharmacies and wild cannabis raw materials from India. Cannabis was a listed substance in the USP until 1940 that was published in 1942 (USP XII), which did not include cannabis. The 2018 Farm Bill defines the term "hemp" as the plant <i>Cannabis sativa</i> L. Therefore, Cannabis sativa L. cannot be considered an adulterant of Cannabis.	Do not list Cannabis sativa L as an adulterant of Cannabis.	Rachel Emailed Gormley as this comment did not apply to the text of the issue paper. No response as of 12.16.19
Martin Charon - Abstain			Editorial	3.X. cannabinoids definition	3.X cannabinoids: For the purposes of this standard, cannabinoids refer to the phytocannabinoids, the typically, C21 (C22 for carboxylated forms) terpenophenolic compounds, and including their carboxylic acids, and degradation products, produced only in <i>Cannabis sativa</i> L.	Appears an old version was reviewed by Martin. The items he struck are still in the current definition. Determine how to address and move forward.

¹ Type of comment: ge = general te = technical ed = editorial

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----------------	---	------------------------

					[I would argue that the chemistry part is not needed here]	
Martin Charon - Abstain			Editorial	3.X. endocannabinoids definition	3.X endocannabinoids: neurotransmitters produced in the human body that bind to cannabinoid receptors. [I don?t see this term being used in the standard]	This definition is not in the issue paper. Appears an old version was reviewed by Martin.
Martin Charon - Abstain			Editorial	3.X Hemp definition	3.X hemp: the <i>Cannabis sativa</i> L. plant with a THC concentration of not more than 0.3% on a dry weight basis, or as otherwise limited by the relevant national government country of sale, that is the source of hemp plant parts. It is used to manufacture and/or hemp-derived ingredients and products, such as phytocannabinoids. Hemp is distinguished from drug-type <i>Cannabis</i> chemovars that contain THC concentrations above 0.3%. For the purposes of this standard, <i>Cannabis sativa</i> includes the variety which was formerly known as <i>Cannabis indica</i> . [For consistency with 5.7 below]	Determine how best to move forward
Martin Charon - Abstain			Editorial	5.7 Hemp and/or hemp-derived ingredients	5.7 Hemp and/or hemp-derived ingredients Dietary ingredients and finished products containing hemp, hemp plant parts and/or hemp-derived ingredients shall be tested for THC content and shall not exceed the limit of THC established by the country of sale. If the country of sale has not established a THC limit, the dietary ingredient and/or finished product shall not exceed the US Federal limit of not more than 0.3% THC on a dry weight basis. The determination of the	Determine how best to move forward.

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----------------	---	------------------------

					<p>THC concentration must take into account the potential to convert THCA into THC. The THC concentration will be evaluated to the acceptable hemp THC level incorporating measurement uncertainty.</p> <p>[Is this not always the case; and as such, not specific to THC testing?]</p>	
Staci Eisner - Affirmative			Editorial	Cannabinoids definition	<p>In the definition of "cannabinoids," delete the comma after "typically". The comma is ungrammatical and confusing. If "typically" needs to be set off from the rest of the text it could be enclosed in parentheses.</p>	Determine how best to move forward.
Staci Eisner - Affirmative			Editorial	Hemp-derived ingredients definition	<p>In the definition of "hemp-derived ingredients" I suggest to add "hemp extracts from various plant parts," since these are likely to be a significant area of commerce (especially since isolated phytocannabinoids are on very shaky legal ground).</p>	Determine how best to move forward.
Staci Eisner - Affirmative			Editorial	Suggests adding additional definitions for hemp extracts	<p>Finally, I suggest a variety of hemp extracts should be clearly defined, because the terminology currently in use in the hemp marketplace is an ad hoc hodgepodge of inaccurate and confusing terms (e.g., "tincture," "whole plant extract," "broad spectrum extract," and "full spectrum extract" are being used incorrectly).</p>	Outside the scope of this issue paper, these terms can be added in a future issue paper.
Michael McGuffin - Negative			Editorial/N A	<p>The Farm Bill defines "hemp" as <i>Cannabis sativa</i> L. with not more than 0.3% THC and USDA's IFR appears to require hemp plants to be analyzed to make sure that level is not exceeded.</p> <p>The draft proposal at 5.7 extrapolates that same limit and analytical requirement to also apply to "dietary ingredients and finished products containing hemp, hemp plant parts and/or hemp derived</p>	<p>I am not certain that is incorrect; but on the other hand, I'm not positive that extrapolations is obvious, or at least not subject to some review and discussion.</p>	<p>Determine how best to move forward.</p> <p>This topic was discussed during the task group and was determined that the 0.3% applied to finished products.</p>

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				ingredients" unless the country of sale has different limits.		
Michael McGuffin - Negative			Editorial/N A	One other point: the draft does not address what, if anything, is done regarding non-compliant THC tests ? are those reportable? ...subject to destruction?	I don't know the answer but perhaps this too needs review.	This is outside the scope of this issue paper. These products would be adulterated products.
Michael McGuffin - Negative			Editorial/N A	Cannabinoids definition I don't think the definition of "cannabinoids" is inaccurate but it is not quite clear (e.g., the placement of the third comma and of the parenthetical statement on carboxylated forms).	cannabinoids: For the purposes of this standard, phytocannabinoids produced in the Cannabis sativa L. plant (typically C21 terpenophenolic compounds (C22 terpenophenolic compounds for carboxylated forms)), and their carboxylic acids and degradation products.	Determine how best to move forward.
Michael McGuffin - Negative			Editorial/N A	Hemp Definition The "hemp" definition states that hemp is used to "manufacture" phytocannabinoids; that it is the source of hemp plant parts but does not state as a source of our defined "hemp-derived ingredients;" and that Cannabis indica is the name of a "variety" when I am nearly certain it was formerly used to describe a species. [Wendy knows this better than I.] I also do not think the sentence the "drug-type" cultivars is needed or useful. I would therefore revise:	hemp: The Cannabis sativa L. plant with a THC concentration of not more than 0.3% on a dry weight basis, or as otherwise limited by the relevant national government of sale, that is the source of hemp plant parts and other hemp-derived ingredients. For the purposes of this standard, Cannabis sativa includes the species which was formerly known as Cannabis indica.	Determine how best to move forward.
Michael McGuffin - Negative			Editorial/N A	Hemp-derived ingredients definition I suggest expanding the definition of "hemp-derived ingredients" to include plant parts (e.g., seed, leaf and flower), to include extracts as such an ingredient, and to expand the possible articles of trade to all constituents instead of just phytocannabinoids; so:	hemp-derived ingredients: Ingredients produced from hemp, such as plant parts (e.g., seed, leaf and flower), fiber, seed oil, extracts, and constituents (e.g., phytocannabinoids and terpenes).	Determine how best to move forward.

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