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TESTIMONY ON SENATE BILL 1353 SD1
RELATING TO INDUSTRIAL HEMP

By
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Senate Committee on Ways and Means
Senator Donovan M. Dela Cruz, Chair
Senator Gilbert S.C. Keith-Agaran, Vice Chair

Tuesday, February 19, 2019; 9:30 AM
State Capitol, Conference Room 211

Thank you for the opportunity to provide testimony on this measure. Please consider the following comments related to this bill:

1 – It is still unclear whether Cannabidiol (CBD) is a controlled substance in Hawaii, and whether the unregulated CBD products that are flowing into our state are safe or legal for human consumption. The Legislature is currently considering an amendment to our Uniform Controlled Substances Act that would place FDA-approved CBD products, such as Epidiolex, into state Schedule V, the least restrictive of our controlled substance schedules.

However, in the meantime, our Department of Public Safety (PSD) is refusing to tell us the scheduling status of non-FDA approved CBD, which makes it impossible to regulate the imported CBD products that are being sold in smoke shops, health food stores, and ink cartridge stores throughout the state. Even imported dried hemp flowers with questionable levels of THC are being sold in our smoke shops without any oversight.

While the unresolved situation with CBD in Hawaii continues to put our residents at risk, states like California are starting to take action. In July of 2018, the [California Department of Public Health](#) issued a FAQ on Industrial Hemp and CBD in food products based on federal law, which clearly prohibits the use of hemp-derived CBD as a food additive or dietary supplement in that state.

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New York's [Department of Health and Mental Hygiene](#) has also started prohibiting the addition of CBD to food products, a signal that other states are starting to recognize that regulation in this area is necessary in order to protect consumers and comply with federal law.

The [Food and Drug Administration](#) (FDA) is very clear about the status of CBD and THC as food additives or dietary supplements:

“Under the FD&C Act, it’s illegal to introduce drug ingredients like these into the food supply, or to market them as dietary supplements. This is a requirement that we apply across the board to food products that contain substances that are active ingredients in any drug.”

In order to insure that Hawaii’s future hemp program will comply with the Agricultural Improvement Act of 2018 and provide for the safe marketing of hemp-derived CBD products, the Legislature needs to address this issue. Perhaps a good place to start is by requiring that PSD provide testimony on this matter in order to answer the following question before this bill passes through your committee.

Is Cannabidiol (CBD) a tetrahydrocannabinol or a derivative of a tetrahydrocannabinol ?

[HRS 329-14. Schedule I.](#) (a) The controlled substances listed in this section are included in Schedule I.

(g) Any of the following cannabinoids, their salts, isomers, and salts of isomers, unless specifically excepted, whenever the existence of these salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Tetrahydrocannabinols; meaning tetrahydrocannabinols naturally contained in a plant of the genus Cannabis (cannabis plant), as well as synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, sp. or synthetic substances, **derivatives**, and their isomers with similar chemical structure and pharmacological activity to those substances contained in the plant, such as the following: Delta 1 cis or trans tetrahydrocannabinol, and their optical isomers; Delta 6 cis or trans tetrahydrocannabinol, and their optical isomers; and Delta 3,4 cis or trans tetrahydrocannabinol, and its optical isomers (since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions, are covered);

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6154432/pdf/can.2018.0030.pdf>

Delta-8-THC (Delta-6-THC):

<https://pubchem.ncbi.nlm.nih.gov/compound/2977#section=Top>

Delta-9 THC (Delta-1-THC):

<https://pubchem.ncbi.nlm.nih.gov/compound/Dronabinol#section=Top>

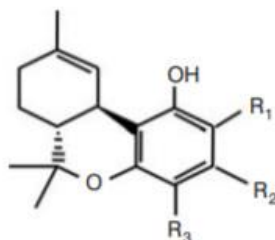
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TABLE 1. Cannabinoids of the Δ^9 -*trans*-tetrahydrocannabinol Type (Turner et al. 1980)

Cannabinoid	Abbreviation	R ₁	R ₂	R ₃
Δ^9 - <i>trans</i> -tetrahydrocannabinolic acid A	Δ^9 -THCA	COOH	C ₅ H ₁₁	H
Δ^9 - <i>trans</i> -tetrahydrocannabinolic acid B	Δ^9 -THCA	H	C ₅ H ₁₁	COOH
Δ^9 - <i>trans</i> -tetrahydrocannabinol	Δ^9 -THC	H	C ₅ H ₁₁	H
Δ^9 - <i>trans</i> -tetrahydrocannabinolic acid-C ₄		COOH or H	C ₄ H ₉	H or COOH
Δ^9 - <i>trans</i> -tetrahydrocannabinol-C ₄	Δ^9 -THC-C ₄	H	C ₄ H ₉	H
Δ^9 - <i>trans</i> -tetrahydrocannabivarinic acid		COOH	C ₃ H ₇	H
Δ^9 - <i>trans</i> -tetrahydrocannabivarin	Δ^9 -THCV	H	C ₃ H ₇	H
Δ^9 - <i>trans</i> -tetrahydrocannabiorcolic acid		COOH or H	CH ₃	H or COOH
Δ^9 - <i>trans</i> -tetrahydrocannabiorcol	Δ^9 -THC-C ₁	H	CH ₃	H

FIGURE 3. Cannabinoids of the Δ^9 -THC type. The most widespread cannabinoids are the phenolic Δ^9 -THC with 21 carbon atoms and a C₅ side chain (R₂ = C₅H₁₁) and its two corresponding carboxylic acids A and B (see Table 1).



<https://cannabis-med.org/data/pdf/2003-01-1.pdf>

2 – The proposed definition of industrial hemp does not specifically exempt viable hemp seeds, which could lead to an interpretation that only infertile hemp seeds are legal under state law. In order to prevent such misinterpretation, the following amendment needs to be made to the definition of hemp in this bill:

Page 2, Line 7:

“Industrial hemp” means the plant *Cannabis sativa* L. and any part of that plant, including the viable seeds thereof and all derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis, or a tetrahydrocannabinol concentration that is allowed by Federal law, whatever is greater.

3 – The outdoor cultivation of hemp in Hawaii will inevitably mean that the dispersion of male hemp pollen will be widespread wherever hemp is being cultivated. Potential cross pollination could severely restrict the ability of patients and dispensaries to produce high quality outdoor cannabis flowers, which will only increase the costs of medical use production and further reduce patient access.

This is something the Legislature will need to address in order to protect our patients and Hawaii’s Medical Use of Cannabis Program. One solution would be to restrict hemp cultivation to least 10 miles away from any dispensary cultivation facility or patient collective.

4 – Hawaii’s hemp pilot program was unwilling to address the marketing piece of the 2014 Federal Farm Bill, which rendered the program non-functional and resulted in the current unregulated importation of Hemp-CBD products. In order to provide for a robust hemp program that can comply with the Agricultural Improvement Act of 2018 and provide the necessary regulation at the state level, the following amendment needs to be made to this section:

Page 10, Line 3:

141-G Rulemaking. (a) The department shall adopt rules to chapter 91 that include but are not limited to:

(8) The marketing and regulation of locally produced and imported hemp products, including hemp crude extracts, distillates, and isolates, in order to protect consumer safety and insure compliance with the Agricultural Improvement Act of 2018;

(9) Any other rules and procedures necessary to carry out this part.