

United Nations Conference on Trade and Development

**Workshop on Industrial Hemp**

**18 January 2023, Palais des Nations, Geneva**

**Hemp: What are we discussing?**

**Botanical characteristics and international regulations**

By

Kenzi Riboulet-Zemouli, Independent researcher, Barcelona



# Hemp:

What are we discussing?  
Botanical characteristics and  
international regulations

## Workshop on industrial hemp

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

18 January 2023  
Palais des Nations, Room XXI  
Geneva, Switzerland

# Part I

# botany: evolution.

WHERE DOES HEMP COME FROM?



# Center of origin of *Cannabis sativa* L. (hemp)

Vegetation History and Archaeobotany  
<https://doi.org/10.1007/s00334-019-00731-8>

REVIEW



## *Cannabis* in Asia: its center of origin and early cultivation, based on a synthesis of subfossil pollen and archaeobotanical studies

John M. McPartland<sup>1,2</sup> · William Hegman<sup>3</sup> · Tengwen Long<sup>4</sup>

Received: 20 December 2018 / Accepted: 6 May 2019  
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### Abstract

Biogeographers assign the *Cannabis* centre of origin to “Central Asia”, mostly based on wild-type plant distribution data. We sought greater precision by adding new data: 155 fossil pollen studies (FPSs) in Asia. Many FPSs assign pollen of either *Cannabis* or *Humulus* (*C-H*) to collective names (e.g. *Cannabis/Humulus* or Cannabaceae). To dissect these aggregate data, we used ecological proxies. *C-H* pollen in a steppe assemblage (with Poaceae, *Artemisia*, Chenopodiaceae) was identified as wild-type *Cannabis*. *C-H* pollen in a forest assemblage (*Alnus*, *Salix*, *Quercus*, *Robinia*, *Juglans*) was identified as *Humulus*. *C-H* pollen curves that upsurged alongside crop pollen were identified as cultivated hemp. Subfossil seeds (fruits) at archaeological sites also served as evidence of cultivation. All sites were mapped using geographic information system software. The oldest *C-H* pollen consistent with *Cannabis* dated to 19.6 ago (Ma), in northwestern China. However, *Cannabis* and *Humulus* diverged 27.8 Ma, estimated by a molecular clock analysis. We bridged the temporal gap between the divergence date and the oldest pollen by mapping the earliest appearance of *Artemisia*. These data converge on the northeastern Tibetan Plateau, which we deduce as the *Cannabis* centre of origin, in the general vicinity of Qinghai Lake. This co-localizes with the first steppe community that evolved in Asia. From there, *Cannabis* first dispersed west (Europe by 6 Ma) then east (eastern China by 1.2 Ma). *Cannabis* pollen in India appeared by 32.6 thousand years (ka) ago. The earliest archaeological evidence was found in Japan, 10,000 BCE, followed by China.

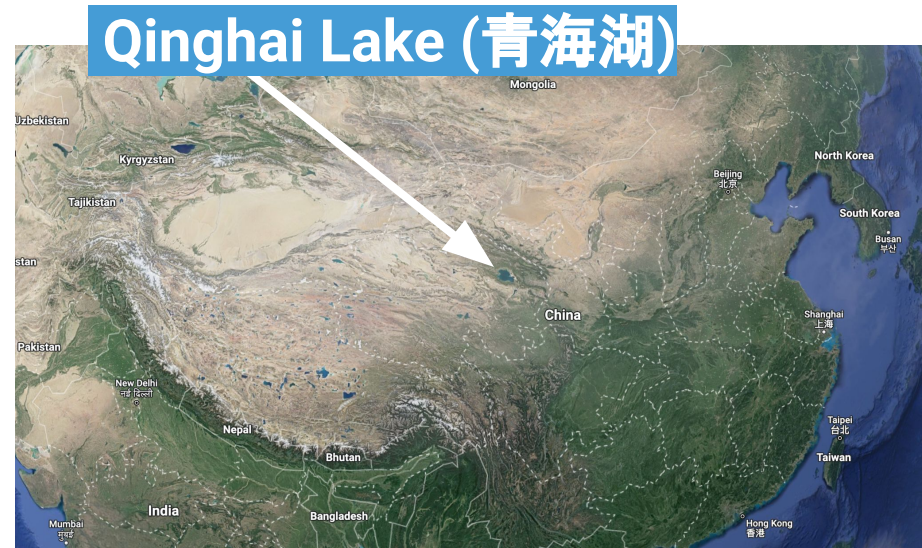


Image: Google Maps.

## Nikolai Ivanovich Vavilov (1887-1943)



### Origin and Geography of Cultivated Plants

N. I. Vavilov



# Arrival in Europe at the Neolithic period

Vegetation History and Archaeobotany (2018) 27:635–648  
<https://doi.org/10.1007/s00334-018-0678-7>

REVIEW



## **Cannabis is indigenous to Europe and cultivation began during the Copper or Bronze age: a probabilistic synthesis of fossil pollen studies**

John M. McPartland<sup>1,2</sup> · Geoffrey W. Guy<sup>2</sup> · William Hegman<sup>3</sup>

Received: 22 October 2017 / Accepted: 9 April 2018 / Published online: 5 May 2018  
© Springer-Verlag GmbH Germany, part of Springer Nature 2018

### Abstract

Conventional wisdom states *Cannabis sativa* originated in Asia and its dispersal to Europe depended upon human transport. Various Neolithic or Bronze age groups have been named as pioneer cultivators. These were tested by examining fossil pollen studies (FPSs), obtained from the European Pollen Database. Many FPSs report *Cannabis* or *Humulus* (*CH*) with collective names (e.g. *Cannabis/Humulus* or Cannabaceae). To dissect these aggregate data, we used ecological proxies to differentiate *CH* pollen, as follows: unknown *CH* pollen that appeared in a pollen assemblage suggestive of steppe (Poaceae, *Artemisia*, Chenopodiaceae) we interpreted as wild-type *Cannabis*. *CH* pollen in a mesophytic forest assemblage (*Alnus*, *Salix*, *Populus*) we interpreted as *Humulus*. *CH* pollen curves that upsurged and appeared de novo alongside crop pollen grains we interpreted as cultivated hemp. FPSs were mapped and compared to the territories of archaeological cultures. We analysed 479 FPSs from the Holocene/Late Glacial, plus 36 FPSs from older strata. The results showed *CH* pollen consistent with wild-type *C. sativa* in steppe and dry tundra landscapes throughout Europe during the early Holocene, Late Glacial, and previous glaciations. During the warm and wet Holocene Climactic Optimum, forests replaced steppe, and *Humulus* dominated. *Cannabis* retreated to steppe refugia. *CH* pollen consistent with cultivated hemp first appeared in the Pontic-Caspian steppe refugium. GIS mapping linked cultivation with the Copper age Varna/Gumelnia culture, and the Bronze age Yamnaya and Terramara cultures. An Iron age steppe culture, the Scythians, likely introduced hemp cultivation to Celtic and Proto-Slavic cultures.

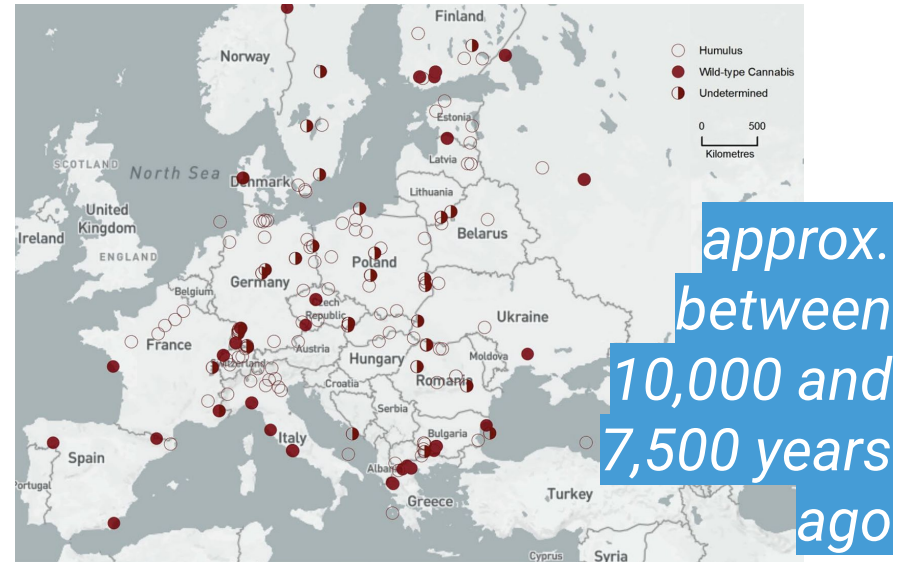
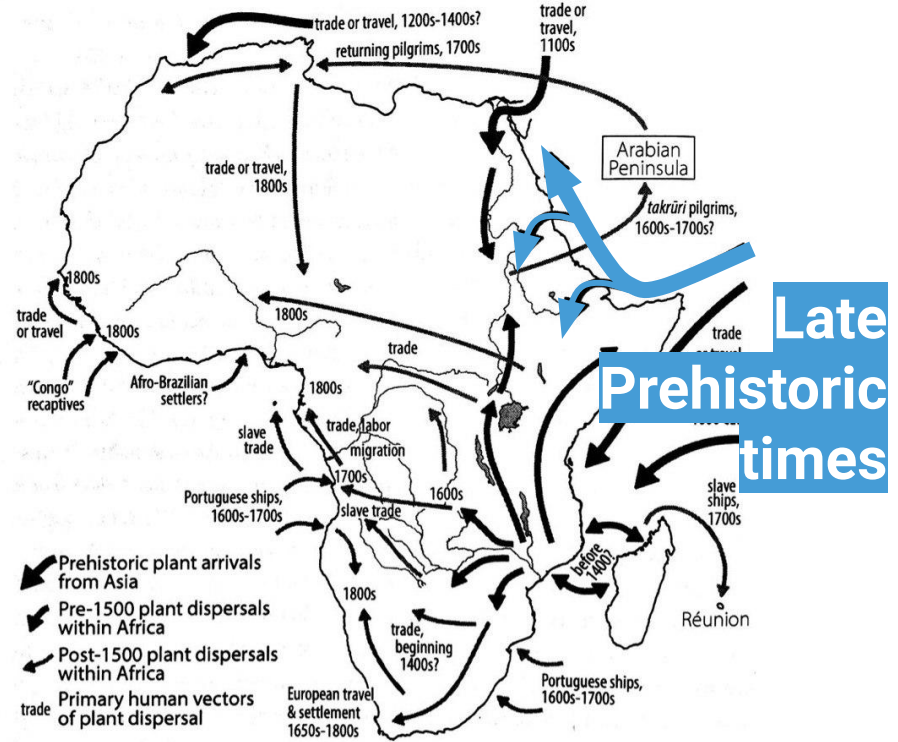
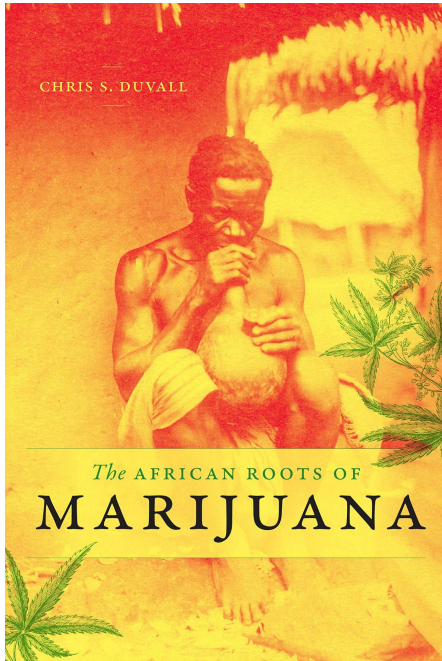


Image from the article (p.641): “Fig. 4. Bin 3 (10,000–7,500 cal BP). Background base map by Natural Earth, free open-source map data, [naturalearthdata.com](http://naturalearthdata.com)”

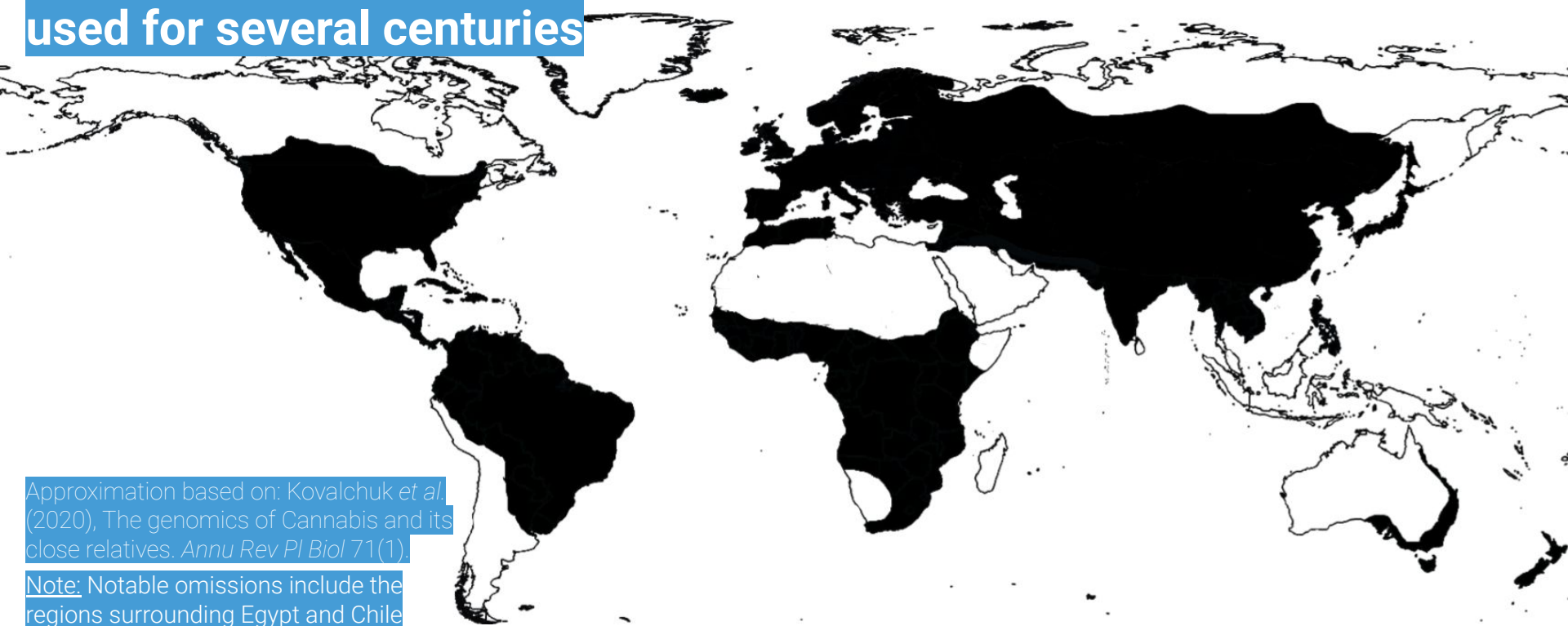


## Repeated arrivals in Africa ...



MAP 4.4. Dispersal of *Cannabis indica* within Africa before 1900. In addition to what is represented on the map, cannabis probably came to Mauritius after 1819, with indentured Indian laborers. Map by Chris S. Duvall.

## Regions where hemp has been cultivated and used for several centuries



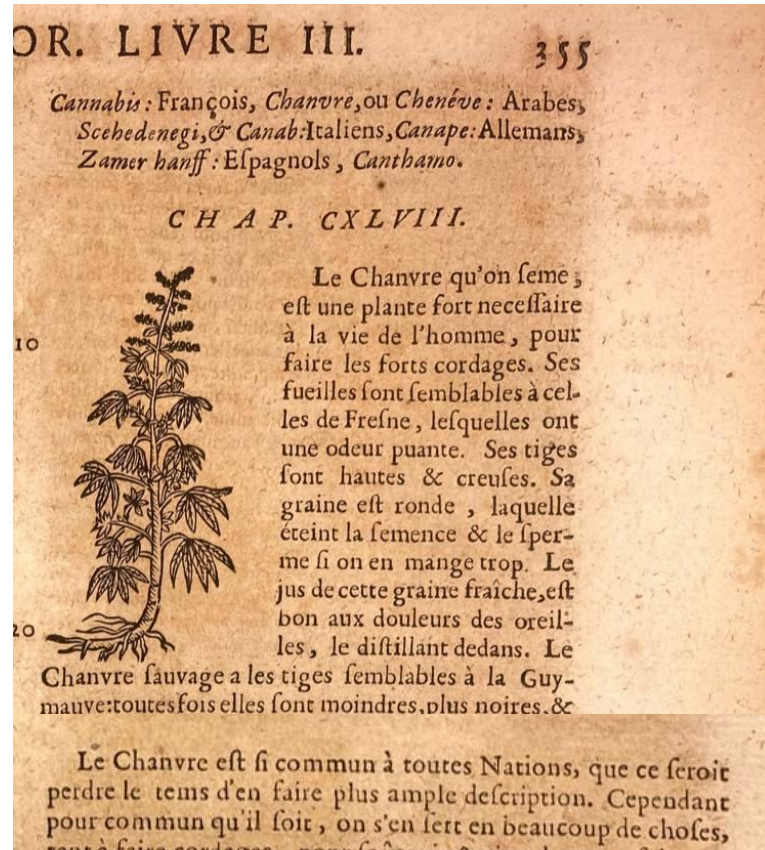
Approximation based on: Kovalchuk *et al.* (2020), The genomics of Cannabis and its close relatives. *Annu Rev Pl Biol* 71(1)

Note: Notable omissions include the regions surrounding Egypt and Chile



Food and Agriculture Organization  
of the United Nations

*« Traditional crops are crops that have been grown for a long time by local communities and that are well adapted to the local agro-climatic conditions »*



## Pedanius Dioscorides

Written in Anatolia, around 60 CE  
This image: edition of Lyon, 1680 CE

*“A plant much  
necessary to life”*

...

*“so common to every nation  
that it would be a loss of  
time to describe it further”*



# Workshop on industrial hemp

Hemp: What are we discussing? Botanical  
characteristics and international regulations

*Kenzi Riboulet-Zemouli*

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

18 January 2023  
Palais des Nations, Room XXI  
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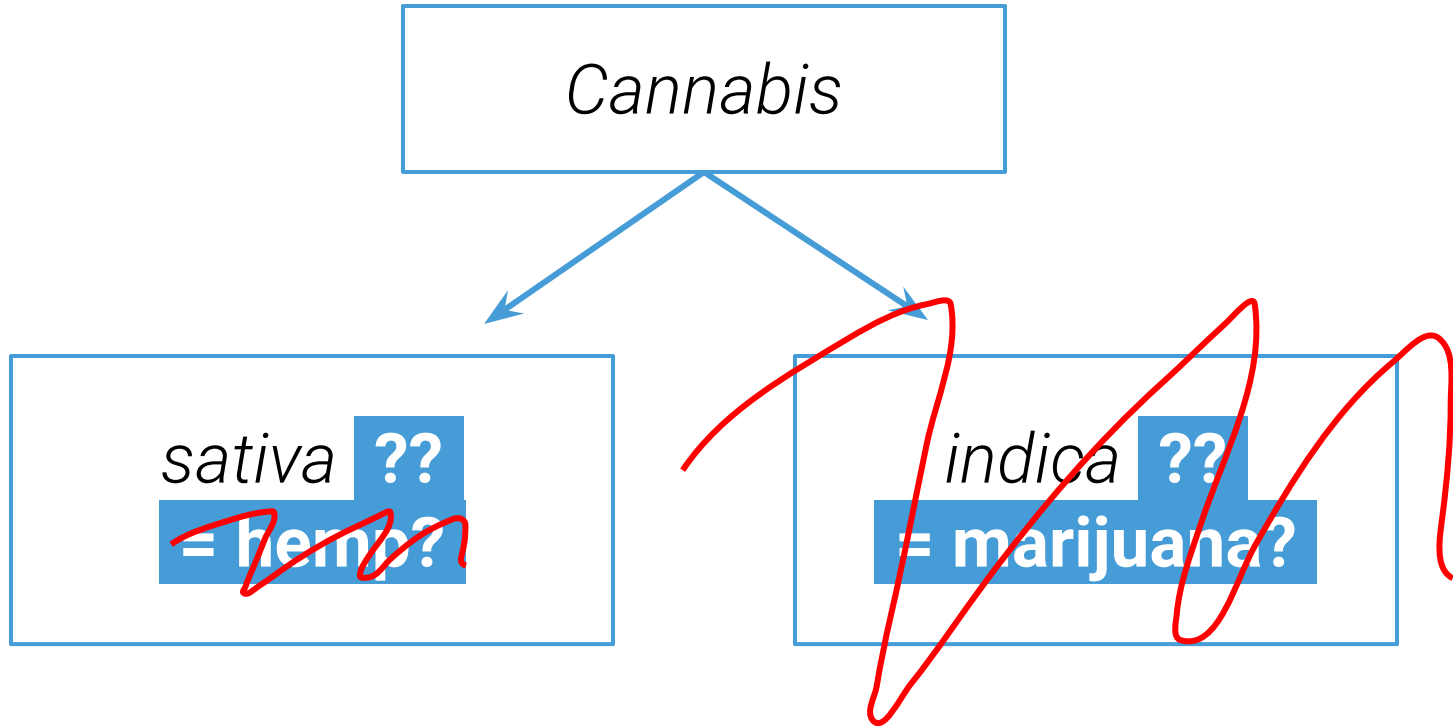
→ hemp is a local crop  
(this statement is also valid  
for online participants)

Image: UNCTAD

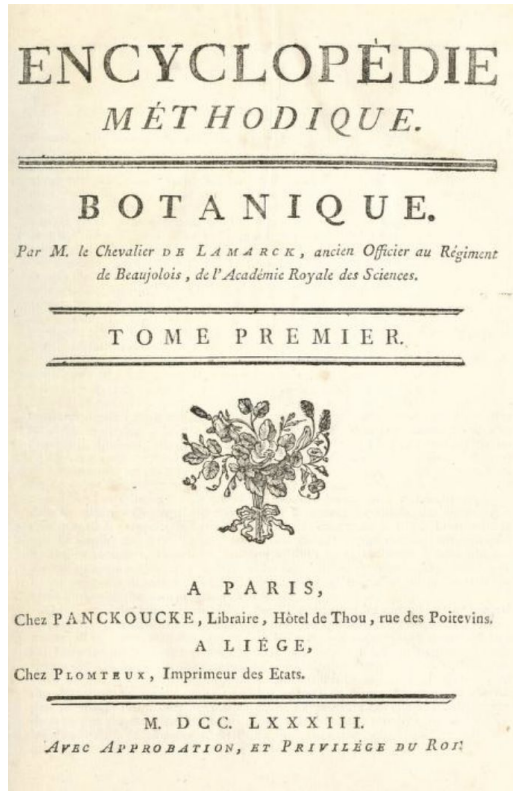
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# botany: systematics.

## THE FALSE 'HEMP VS MARIJUANA' DIVIDE







2. CHANVRE des Indes, *Cannabis Indica*. *Cannabis foliis alternis*. N. *Cannabis similis exotica*. Bauh. Pin. 320. *Cannabis peregrina*, gemmis fructuum longioribus. Moris. Hist. 3. p. 433. n°. 2. Kalengi-cansjava. Rheed. Mal. 10. p. 119. t. 60. Tsjeru-cansjava. Ibid. p. 121. t. 61. *Bangua des Indiens*. Dakka ou Bangua. Hist. des Voyages, Vol. 5. p. 188. fig.

℞. *Eadem caule altiore*. *Cannabis Indica*. Rumph. Amb. 5. p. 208. t. 77.

Cette plante, dont M. Sonnerat nous a communiqué des morceaux qu'il a rapportés de l'Inde, nous paroît une espèce très-distinguée de celle qui précède. Elle est moins grande, plus rameuse, à tige plus dure & presque cylindrique, & s'en distingue particulièrement en ce que ses feuilles sont toutes constamment alternes. Leurs folioles sont fort étroites, linéaires-lancéolées, & très-acuminées. Les individus mâles en portent cinq ou sept; mais ceux qui sont femelles, n'en ont communément que trois sur chaque pétiole, & même les feuilles du sommet sont tout-à-fait simples. Les fleurs femelles ont leur calice velu, & de longs styles qui le sont pareillement. Cette plante croit dans les Indes orientales. (v. f.) Sa tige dure & son écorce mince, la rendent incapable de fournir des filamens semblables à ceux que l'on retire de l'espèce ci-dessus, & dont on fait un fi



Image: Wellcome Trust, CC-BY 4.0 (on wikimedia)





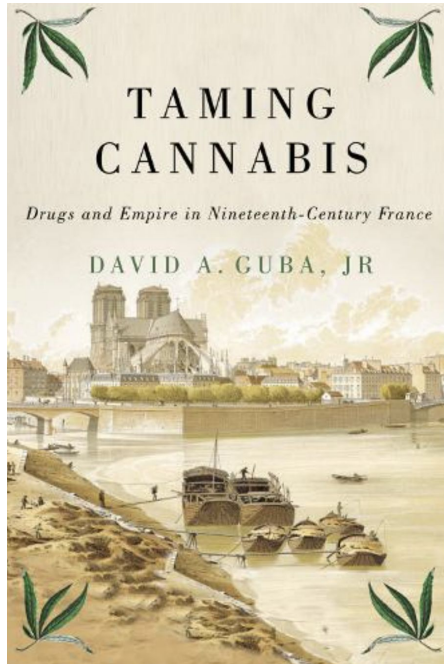
← A young Nepali woman  
from the Shipti region of  
Darchula District wearing  
a hemp cloth sash belt.

A Nepali man from the  
Shipti region of Darchula  
District wearing the  
Bhangara [hemp cloth] →

Photos: **Robert C. Clarke** (2007)  
“Traditional Nepali Hemp Textiles”,  
*Journal of Industrial Hemp*, 12(2)



## “Chanvre des Indes”: hashish and otherness



### CONCLUSION: HISTORICIZING THE TAXONOMY OF CANNABIS

Despite persistent confusion and debates over the proper scientific taxonomy of cannabis, the polytypic concept concretized by Lamarck in 1783 has dominated Western scientific, popular, and legal perceptions of the plant and its byproducts through to the present day.<sup>105</sup> Scientists, scholars, and laypeople alike generally believed and still believe that there are distinct species of cannabis – *Cannabis sativa*, *Cannabis indica*, and, after 1924, *Cannabis ruderalis*.<sup>106</sup> Moreover, this polytypic concept has allowed, as in the above writings of French naturalists, travel writers, physicians, government officials, and literati, French authorities to speak of each subspecies as a pure type with essential characteristics reflective of contrasting (and unequal) cultures of cultivation and consumption.



(1867)

## GACETA DE MADRID

Los verdaderos cáñamos de Asia y Europa constituyen una sola especie, el *cannabis sativa*: las diferencias que presenta la planta cultivada en la India, la Persia y la China, dependen de las condiciones climatológicas, y aunque algunos botánicos las han creído suficientes para hacer de esta una especie distinta con el nombre de *Cannabis Indica*, esta división no ha sido admitida, porque no existe ninguna modificación en los caracteres sobre los que descansa la determinación de la especie botánica.





### *Cannabis* Systematics at the Levels of Family, Genus, and Species

John M. McPartland<sup>1,2\*</sup>

#### Abstract

New concepts are reviewed in *Cannabis* systematics, including phylogenetics and nomenclature. The family *Cannabaceae* now includes *Cannabis*, *Humulus*, and eight genera formerly in the *Celtidaceae*. Grouping *Cannabis*, *Humulus*, and *Celtis* actually goes back 250 years. Print fossil of the extinct genus *Dorafeevia* (= *Humularia*) reveals that *Cannabis* lost a sibling perhaps 20 million years ago (mya). *Cannabis* print fossils are rare ( $n=3$  worldwide), making it difficult to determine when and where she evolved. A molecular clock analysis with chloroplast DNA



**Cannabis sativa L. - Botany and Biotechnology** pp 101–121 | [Cite as](#)

## *Cannabis sativa* and *Cannabis indica* versus “Sativa” and “Indica”

[John M. McPartland](#)

Chapter | [First Online: 24 May 2017](#)

7513 Accesses | 17 Citations | 14 Altmetric

### Taxonomic studies of *Cannabis* in China

Shao Hong<sup>1</sup> and Robert C. Clarke<sup>2</sup>

<sup>1</sup> Department of Biology and Genetics, Beijing Medical University, Beijing 100083, PRC

<sup>2</sup> Projects Manager, International Hemp Association, Postbus 75007, 1070 AA Amsterdam, The Netherlands

Shao Hong and Robert C. Clarke 1996. Taxonomic studies of *Cannabis* in China. *Journal of the International Hemp Association* 3(2): 55–60.

Many aspects of *Cannabis* taxonomy and systematics have been studied in the People's Republic of China (PRC) since it was founded in 1949. Most of the reports indicated that only one species (*Cannabis sativa* L.) exists in China and consists of two infra specific taxa (variously indicated either as subspecies, varieties or forms) *sativa* and *indica*. The fiber types low in THC are classified as subspecies *sativa* and drug types with higher THC contents are classified as subspecies *indica*. These drug varieties are found south of 42°N latitude in western China and south of 30°N latitude in eastern China. Since classical taxonomic studies fall short of fully answering questions about the evolution of *Cannabis* in China, various molecular methods are suggested.

### The Name of *Cannabis*: A Short Guide for Nonbotanists

Antonino Polito\*

#### Abstract

The genus *Cannabis* (Family Cannabaceae) is probably indigenous to wet habitats of Asiatic continent. The long coexistence between mankind and *Cannabis* led to an early domestication of the plant, which soon showed an amazing spectrum of possible utilizations, as a source of textile fibers, as well as narcotic and psychoactive compounds. Nowadays, the species(s) belonging to the genus *Cannabis* are represented by myriads of cultivated varieties, often with unstable taxonomic foundations. The nomenclature of *Cannabis* has been the object of numerous nomenclatural treatments. Linnaeus in *Species Plantarum* (1753) described a single species of hemp, *Cannabis sativa*, whereas Lamarck (1785) proposed two species of *Cannabis*: *C. sativa*, the species largely cultivated in Western Continent, and *Cannabis indica*, a wild species growing in India and neighboring countries. The dilemma about the existence of the species *C. indica* considered distinct from *C. sativa* continues up to present days. Due to their prevalent economic interest, the nomenclatural treatment is particularly important as far as it concerns the cultivated varieties of *Cannabis*. In this context, we propose to avoid the distinction between *sativa* and *indica*, suggesting a bimodal approach: when a cultivar has been correctly established, it could be advisable to apply a nomenclature system based on the International Code of Nomenclature for Cultivated Plants

### American law and the species problem in *Cannabis*: Science and semantics Title

*American law and the species problem in Cannabis: Science and semantics*

#### Sections

[Introduction](#)

[The treatment of cannabis in the literature](#)

[Taxonomy and the "species"](#)

[Semantic questions concerning the use of terms](#)

[The scientific question concerning taxonomic structure in Cannabis](#)

[Acknowledgements](#)

#### Details

Author: Ernest SMALL

Pages: 1 to 20

Creation Date: 1975/01/01

Bot. Rev. (2017) 83:327–381  
DOI 10.1007/s12229-017-9187-0



## Models of *Cannabis* Taxonomy, Cultural Bias, and Conflicts between Scientific and Vernacular Names

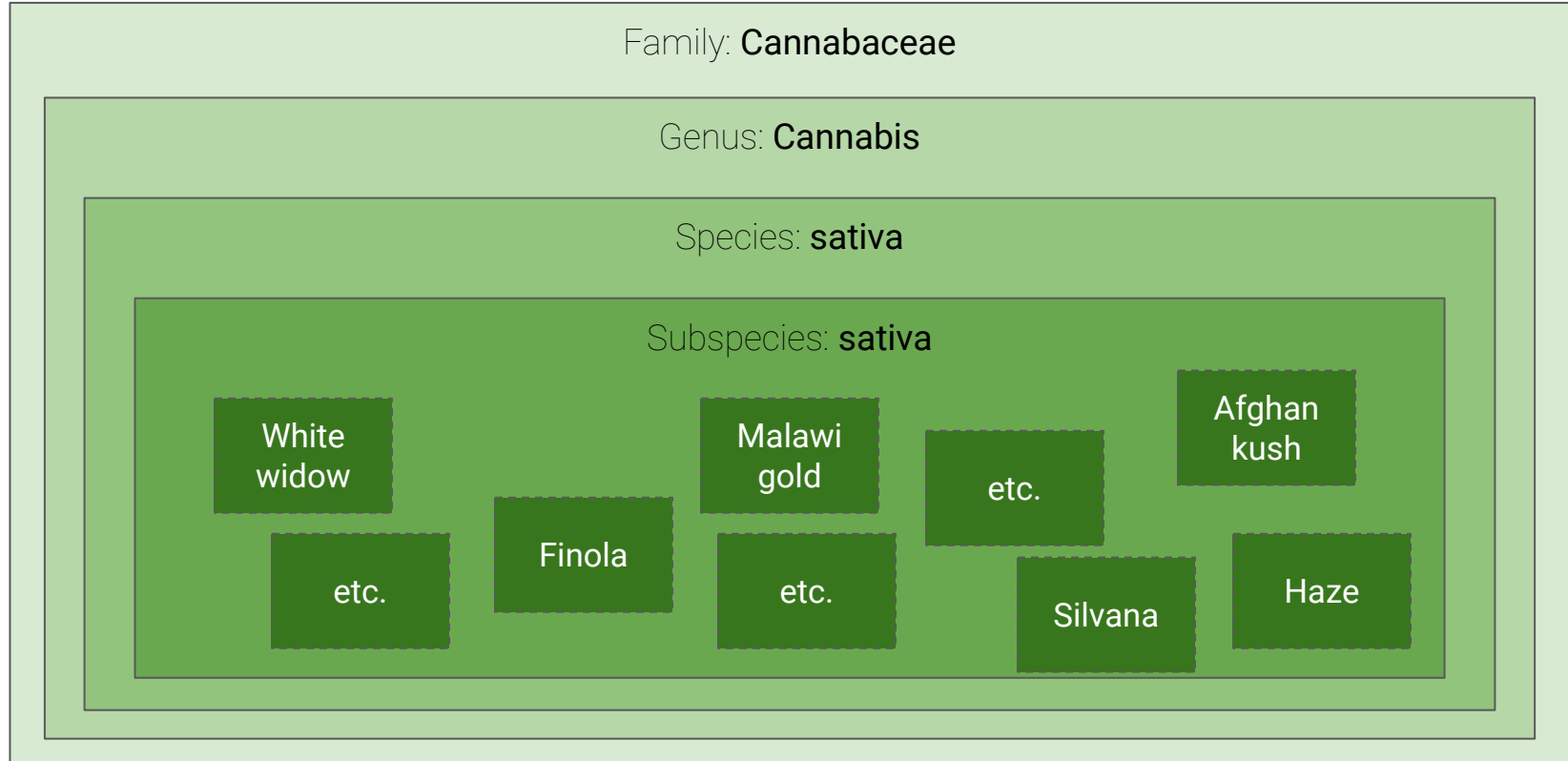
John M. McPartland<sup>1,2</sup> · Geoffrey W. Guy<sup>1</sup>

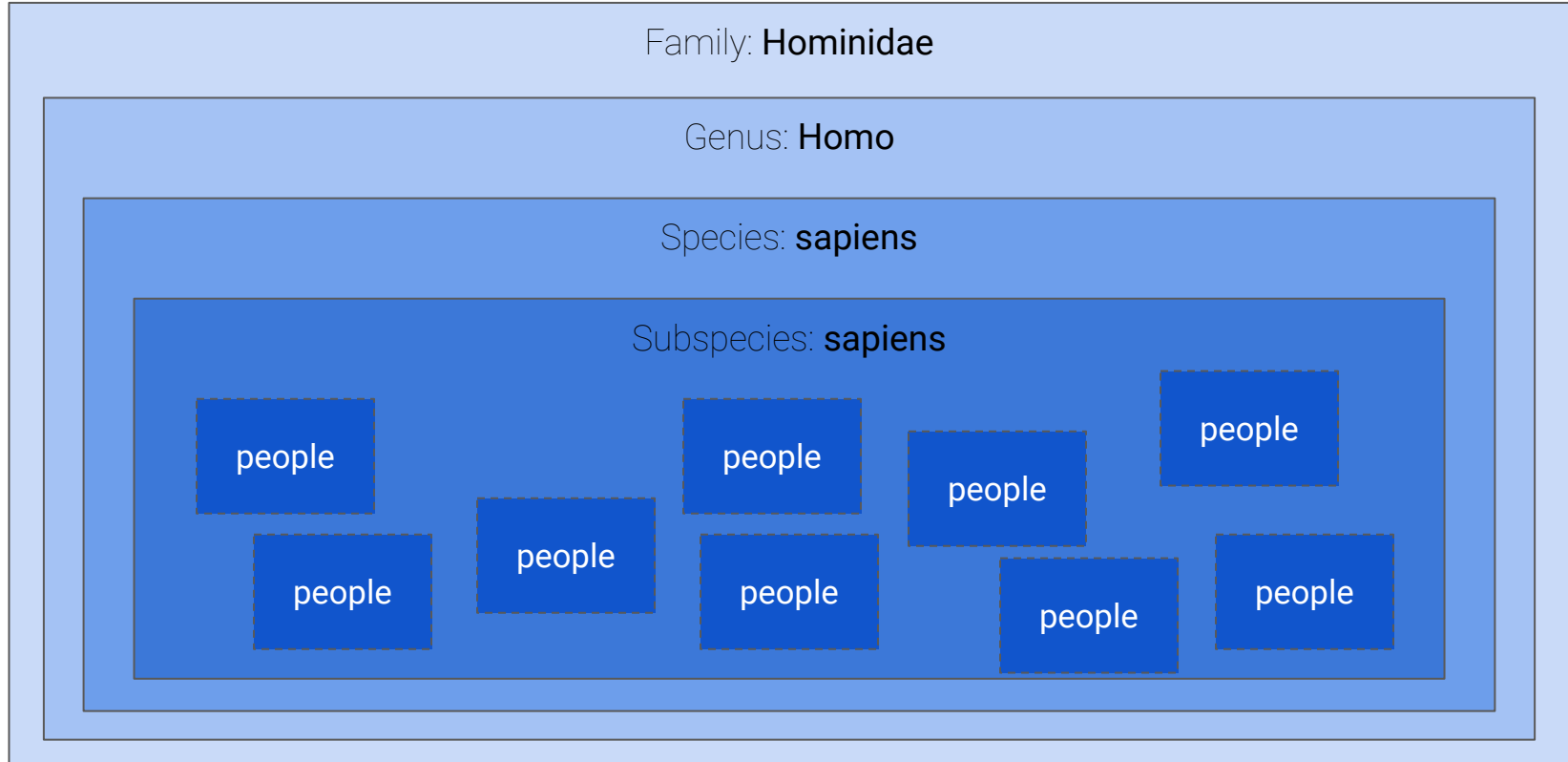
<sup>1</sup> GW Pharmaceuticals, Sovereign House, Histon, Cambridge CB24 9BZ, UK

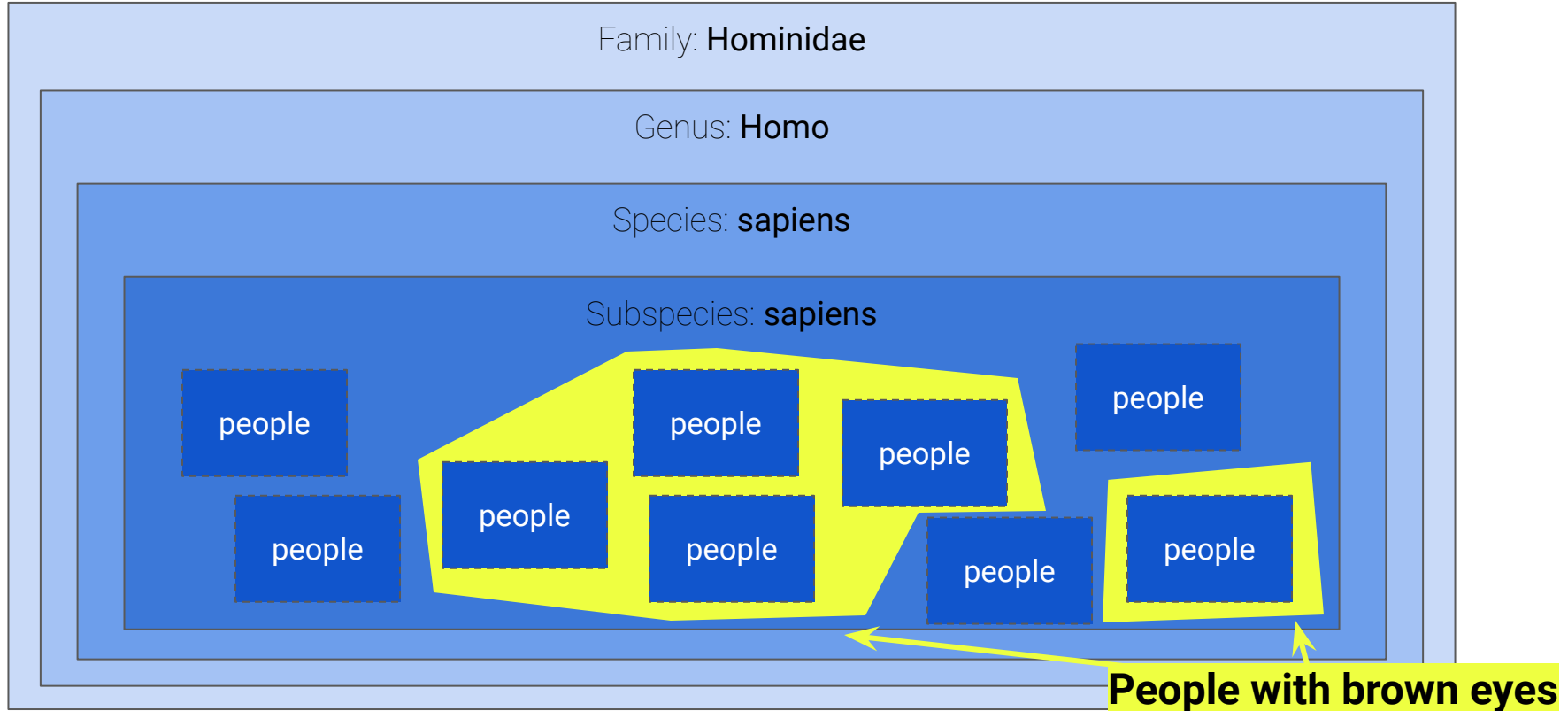
<sup>2</sup> Author for Correspondence; e-mail: mcpruit@myfairpoint.net

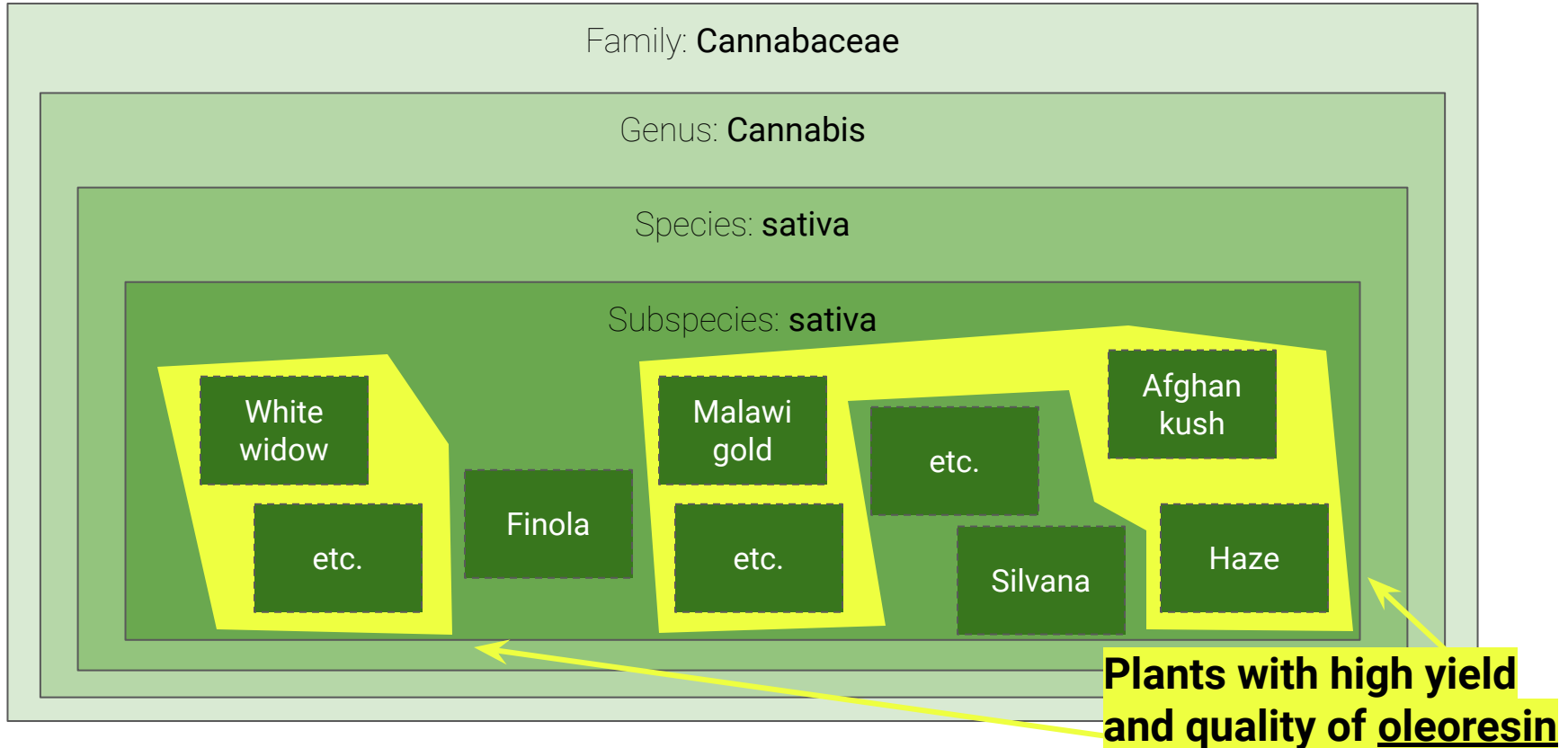
Published online: 22 June 2017

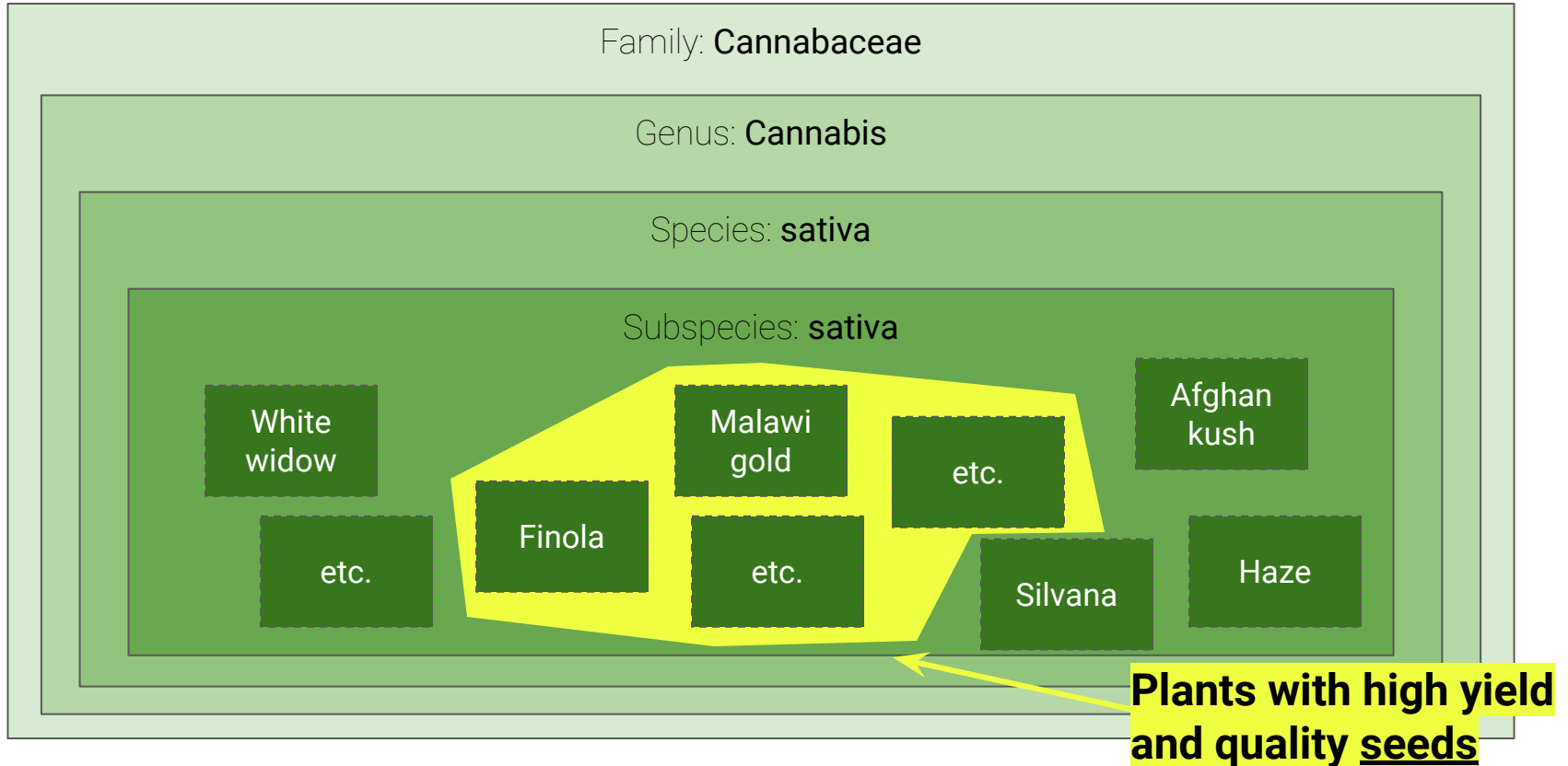
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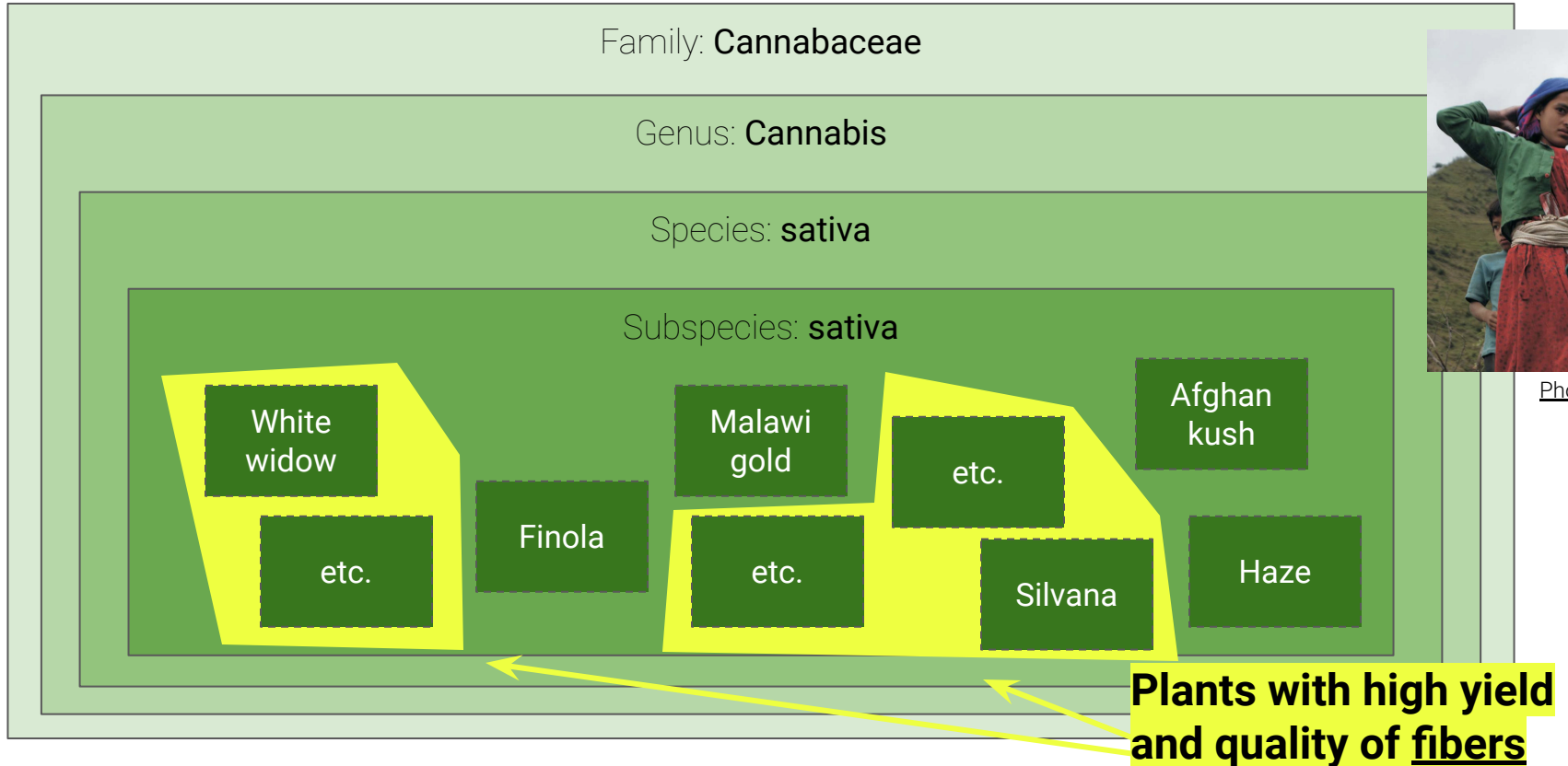
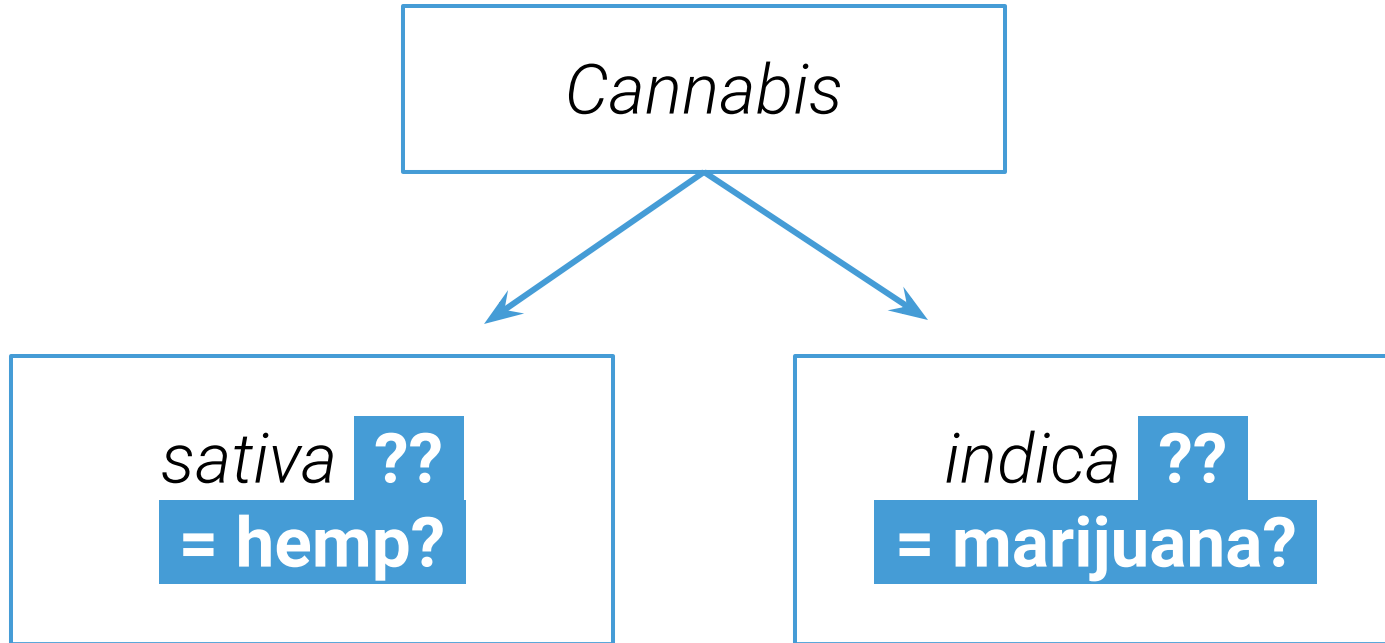
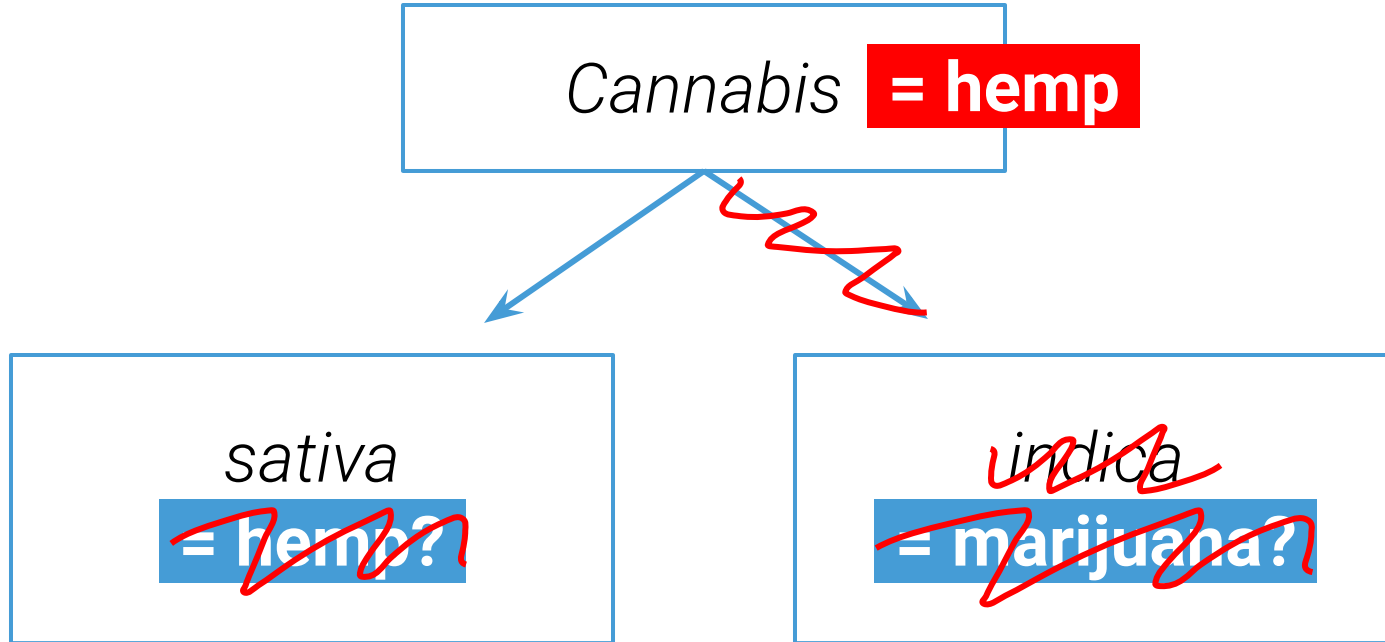


Photo: Robert C. Clarke







Cannabis and Cannabinoid Research  
Volume 3.1, 2018  
DOI: 10.1089/can.2018.0039

**Cannabis and  
Cannabinoid Research**

*Mary Ann Liebert, Inc.* publishers

MINI-REVIEW

Open Access

## ***Cannabis* Systematics at the Levels of Family, Genus, and Species**

John M. McPartland<sup>1,2,\*</sup>

In summary, reconciling the vernacular and formal nomenclatures: “Sativa” is really *indica*, “Indica” is actually *afghanica*, and “Ruderalis” is usually *sativa*. All three are varieties of one species, *C. sativa* L.



# Workshop on industrial hemp

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*Kenzi Riboulet-Zemouli*

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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ICPC 2018 / FAAAT

flickr H2O Alchemist

Hanka Gabrielová

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botany: plant parts.

TOPS, LEAVES, STEM, ROOTS



# Workshop on industrial hemp

## Hemp: What are we discussing? Botanical characteristics and international regulations

*Kenzi Riboulet-Zemouli*

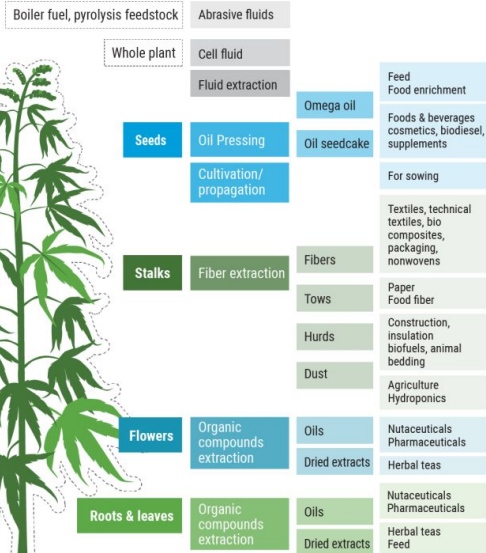
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

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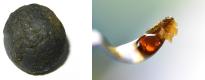
### Hemp plant's major uses and agricultural benefits



#### Agricultural benefits

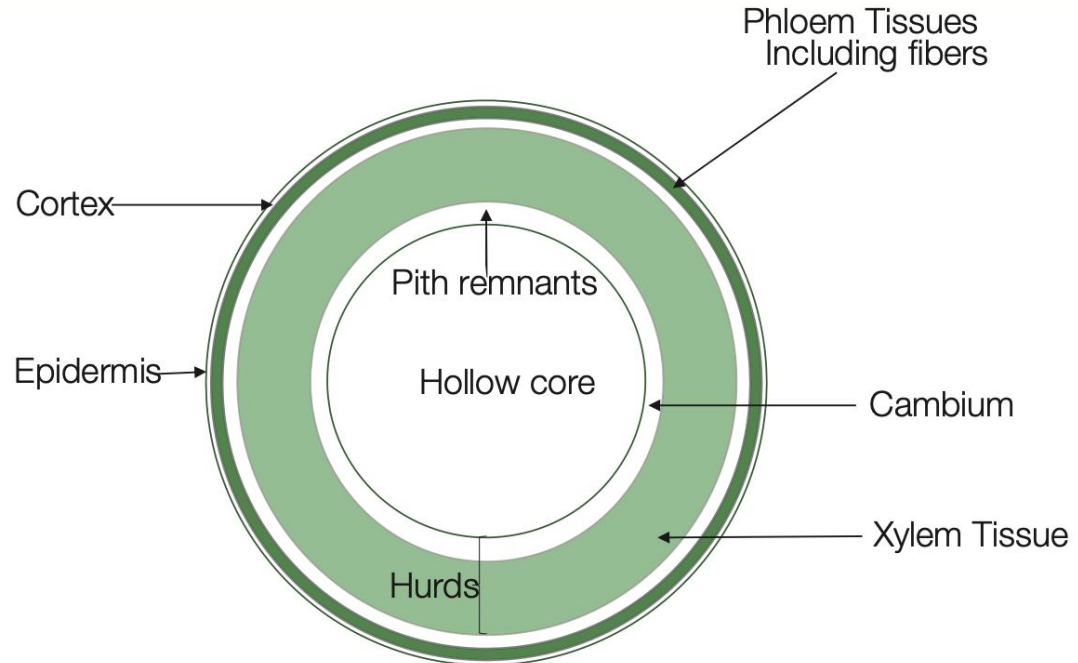
- Soil regeneration/bonification
- Soil decontamination
- Water depollution
- Low needs in pesticides and herbicides
- CO<sub>2</sub> absorption

Source: UNCTAD Commodities at a glance Special issue on industrial hemp.

Plant part:	Composed of:
	Flowers (or seedless fruits)
Tops [flowering and fruiting tops]	Seeds (seeded fruits)
	Leaves
	Stem
Leaves	/
Stem	(see next slide)
	
Roots	/
Oleoresin	Phytocannabinoids + aromatic compounds (Can be CBD-rich, can be THC-rich, can be both)
	

### Scaled diagram of a cross section of a mature hemp stem

Source: UNCTAD Commodities at a glance Special issue on industrial hemp.





Both male & female flowers are present  
(dioecious or monoecious)

+



=

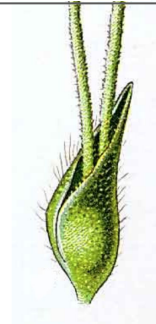


*Seeded tops,  
less oleoresin*

Only female flowers  
are present  
(dioecious, males  
have been removed)



=



*Seedless tops,  
more oleoresin*

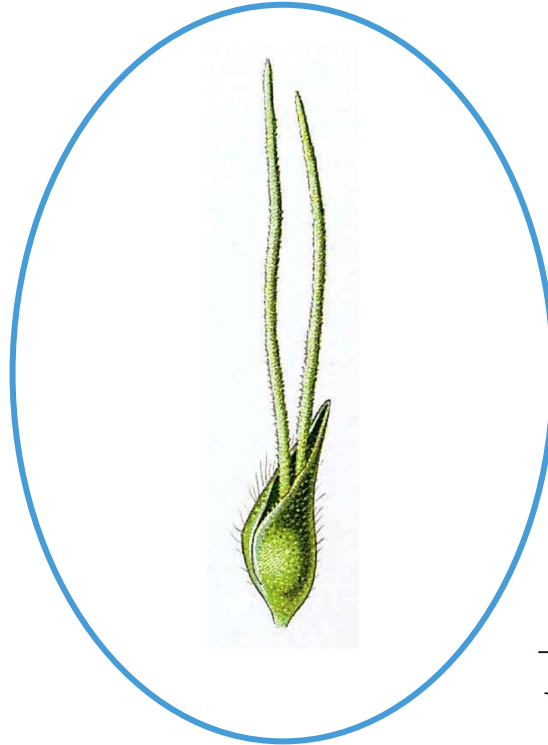
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	Flowers (or seedless fruits)
Tops [flowering and fruiting tops]	Seeds (seeded fruits)
	Leaves
	Stem

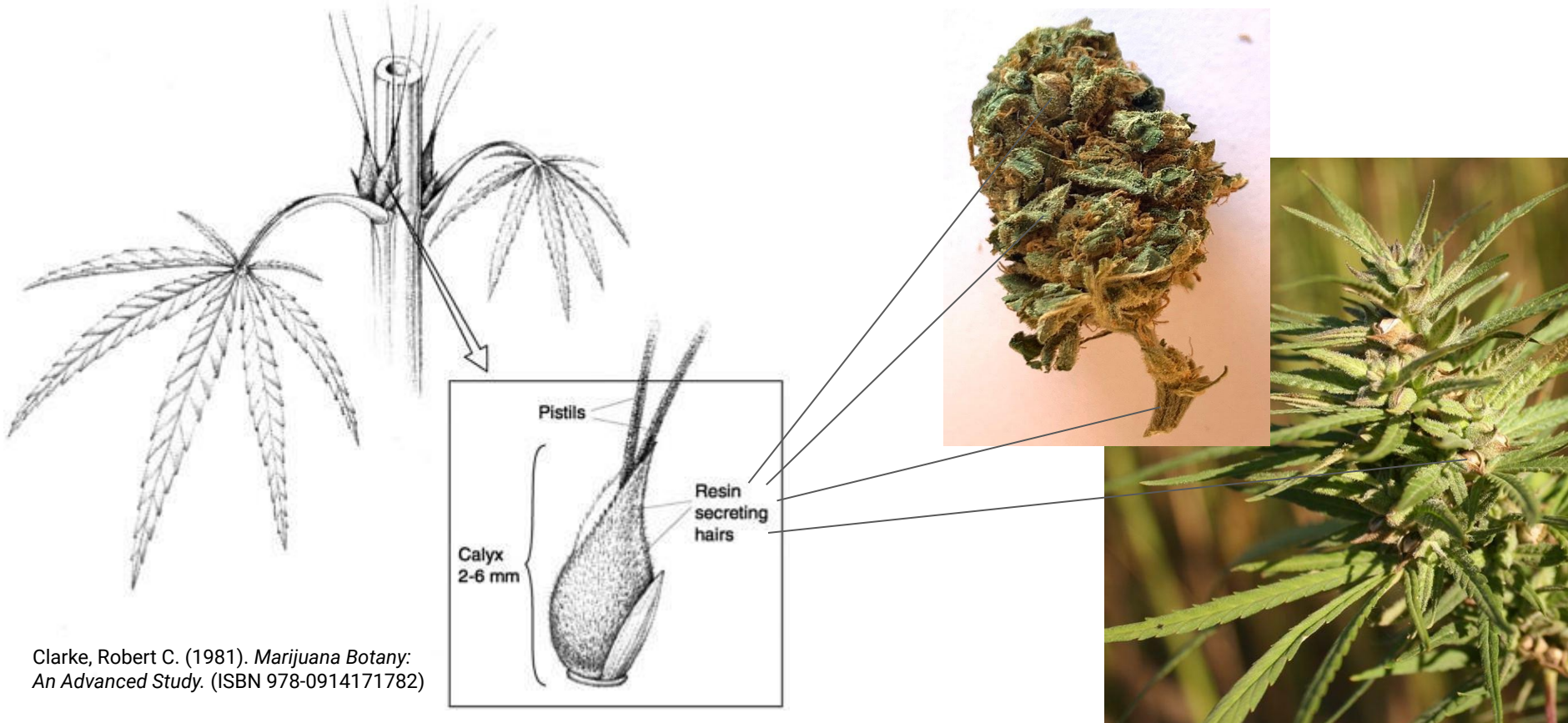
# Workshop on industrial hemp

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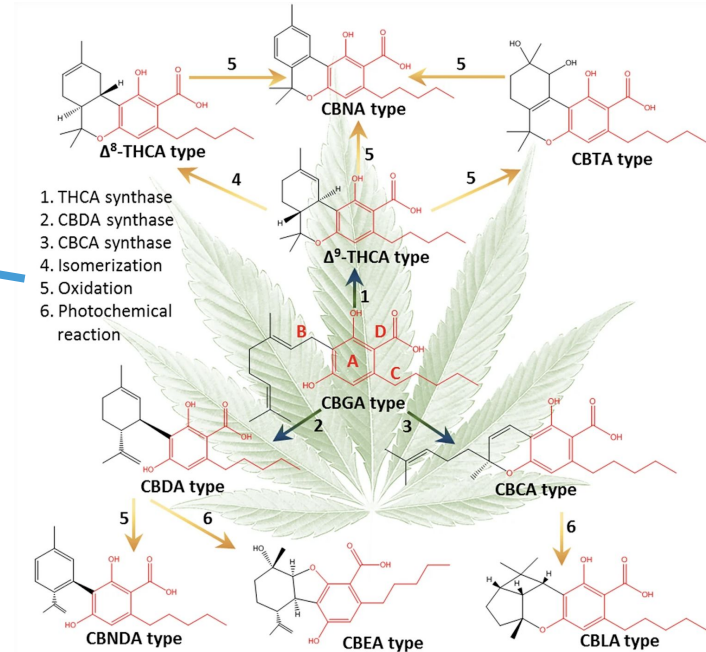
*Kenzi Riboulet-Zemouli*

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Clarke, Robert C. (1981). *Marijuana Botany: An Advanced Study*. (ISBN 978-0914171782)



**Image:** Berman, P. (2018). "A new ESI-LC/MS approach for comprehensive metabolic profiling of phytocannabinoids in *Cannabis*", *Scientific Reports*, 8:14280



**Table I. Ethanol contents in various food items<sup>a</sup>**

	Mean	SD					
			Malt beer (g/L)			Bananas	
			Brand 1	2.15	± 0,2	Banana, green peel	<LOQ
			Brand 2	<LOQ		Banana, ripe	0.02 ±0.01
			Brand 3	0.44	±0.02	Banana, very ripe, peel with dark zones	0.04 ±0.01
			Vinegar (g/L)			Mean	0.02
			Vinegar (white, from wine)	2.64	±0.09	Other fruit (g/100 g)	
			Bread and bakery products, packed (g/100 g)			Pear, ripe	0.04 ±0.01
			Wheat toast	0.18	±0.01	Mango, ripe	<LOQ
			Wheat rolls	0.14	±0.01	Apple sauce, ready to eat	<LOQ
			Burger rolls, American style	1.28	±0.08	Fruit salad, ready to eat	0.01 ±0.01
			Wheat and rye bread	0.29	±0.02	Dried fruit	
			Crispbread, Scandinavian style	<LOQ		Prunes, soft	<LOQ
			Zwieback	<LOQ		Figs, soft	<LOQ
			Rye bread	0.18	±0.01	Dairy products (g/100 g)	
			Pumpernickel, rye	0.03	±0.01	Kefir 1	0.02 ±0.01
			Rye bread, traditional	0.20	±0.01	Kefir 2	<LOQ
			Rye bread, organic	0.17	±0.01	Kefir 3	<LOQ
			Apple pie, traditional, packed	<LOQ		Yogurt, cherry	0.02 ±0.01
			Sweet milk rolls, French style	1.21	±0.02	Yogurt, with Bircher muesli	<LOQ
			Mean (without burger rolls, American style)	0.22			
			Bread, loose (g/100 g)				
			Wheat bread	0.12	±0.01		

<sup>a</sup>Data represent mean values (g/L or g/100 g) and standard deviations (SD) of three independent measurements/samples.

Journal of Analytical Toxicology, Vol. 22, May/June 1998



## Ethanol Content of Various Foods and Soft Drinks and their Potential for Interference with a Breath-Alcohol Test

**Barry K. Logan** and **Sandra Distefano**

*Washington State Toxicology Laboratory, Department of Laboratory Medicine, University of Washington,  
2203 Airport Way South, Seattle, Washington 98134*

## *Part II*

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# regulations.

## HEMP & THE TREATY





## The International Drug Control Conventions

Single Convention on Narcotic Drugs of 1961  
as amended by the 1972 Protocol

Convention on Psychotropic Substances of 1971

United Nations Convention against Illicit Traffic in  
Narcotic Drugs and Psychotropic Substances of 1988

with final acts and resolutions

### ➔ 1961 'Single Convention'

"Single Convention on Narcotic Drugs, 1961" (concluded in New York)  
as amended by the 1972 Protocol (concluded in Geneva)

### ➔ 1971 Convention

"Convention on Psychotropic Substances, 1971" (concluded in  
Geneva)

### ➔ 1988 Convention

"United Nations Convention against Illicit Traffic  
in Narcotic Drugs and Psychotropic Substances" (concluded in Vienna)



**UNODC**

United Nations Office on Drugs and Crime

## The International Drug Control Conventions

Single Convention on Narcotic Drugs of 1954  
as amended by the 1972 Protocol

Convention on Psychotropic Substances of 1971

United Nations Convention against Illicit Traffic in  
Narcotic Drugs and Psychotropic Substances of 1988

with final acts and resolutions

### SINGLE CONVENTION ON NARCOTIC DRUGS, 1961

#### PREAMBLE

*The Parties,*

*Concerned* with the health and welfare of mankind,

*Recognizing* that the medical use of narcotic drugs continues to be indispensable for the relief of pain and suffering and that adequate provision must be made to ensure the availability of narcotic drugs for such purposes,

*Recognizing* that addiction to narcotic drugs constitutes a serious evil for the individual and is fraught with social and economic danger to mankind,

*Conscious* of their duty to prevent and combat this evil,

*Considering* that effective measures against abuse of narcotic drugs require co-ordinated and universal action,

*Understanding* that such universal action

#### ARTICLE 1

##### *Definitions*

1. Except where otherwise expressly indicated or where the context otherwise requires, the following definitions shall apply throughout the Convention:

(a) "Board" means the International Narcotics Control Board.

(b) "Cannabis" means the flowering or fruiting tops of the cannabis plant (excluding the seeds and leaves when not accompanied by the tops) from which the resin has not been extracted, by whatever name they may be designated.

(c) "Cannabis plant" means any plant of the genus cannabis.

(d) "Cannabis resin" means the separated resin, whether crude or purified, obtained from the cannabis plant.

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## ARTICLE 28

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2. This Convention shall not apply to the cultivation of the cannabis plant exclusively for industrial purposes (fibre and seed) or horticultural purposes.

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Scope and definition of the exemption covering “hemp” in the international drug control Conventions. A total exemption – by purpose

October 2019

DOI: [10.13140/RG.2.2.15697.28008](https://doi.org/10.13140/RG.2.2.15697.28008)

Project: [Cannabis: Policy & Sustainability](#)



Scope and definition  
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A total exemption - by purpose.



Riboulet-Zemouli (2022), **High Compliance**. Paris: FAAAT.



**Legal analysis of Article 28  
in this report, pages 54-58**

➔ [bit.ly/HempAndTheTreaties](https://bit.ly/HempAndTheTreaties)

➔ [ssrn.com/abstract=4057428](https://ssrn.com/abstract=4057428)

In order for the exemption of hemp crops to be extended to hemp tops and hemp leaves, the following obligations apply to governments:

➤ **For hemp leaves:** art. 28(3)

Prevention of any “misuse” and “illicit traffic”

➤ **For hemp tops:** art. 2(9)

- Collect data on total Kg. of hemp tops produced.
- Prevention of any “abuse and ill effects” and reduction of risks and harms by any means.

Riboulet-Zemouli (2022), **High Compliance**. Paris: FAAAT.



Legal analyses of these  
provisions in this report

➤ [ssrn.com/abstract=4057428](https://ssrn.com/abstract=4057428)



Trends to legalise the non-medical use of drugs, with an emphasis on cannabis

*Beyond international law, if foreseen differently than in Bill C-45, Canada's legalization could better fit into the overarching goals of the international community by addressing environmental & biodiversity concerns, including affected populations in the licit system, and building sustainability.*

22:02 / 23:45  
International Narcotics Control Board hearing – 25 May 2022

INCB Civil Society Hearing 2022, Kenzi Riboulet Zemouli

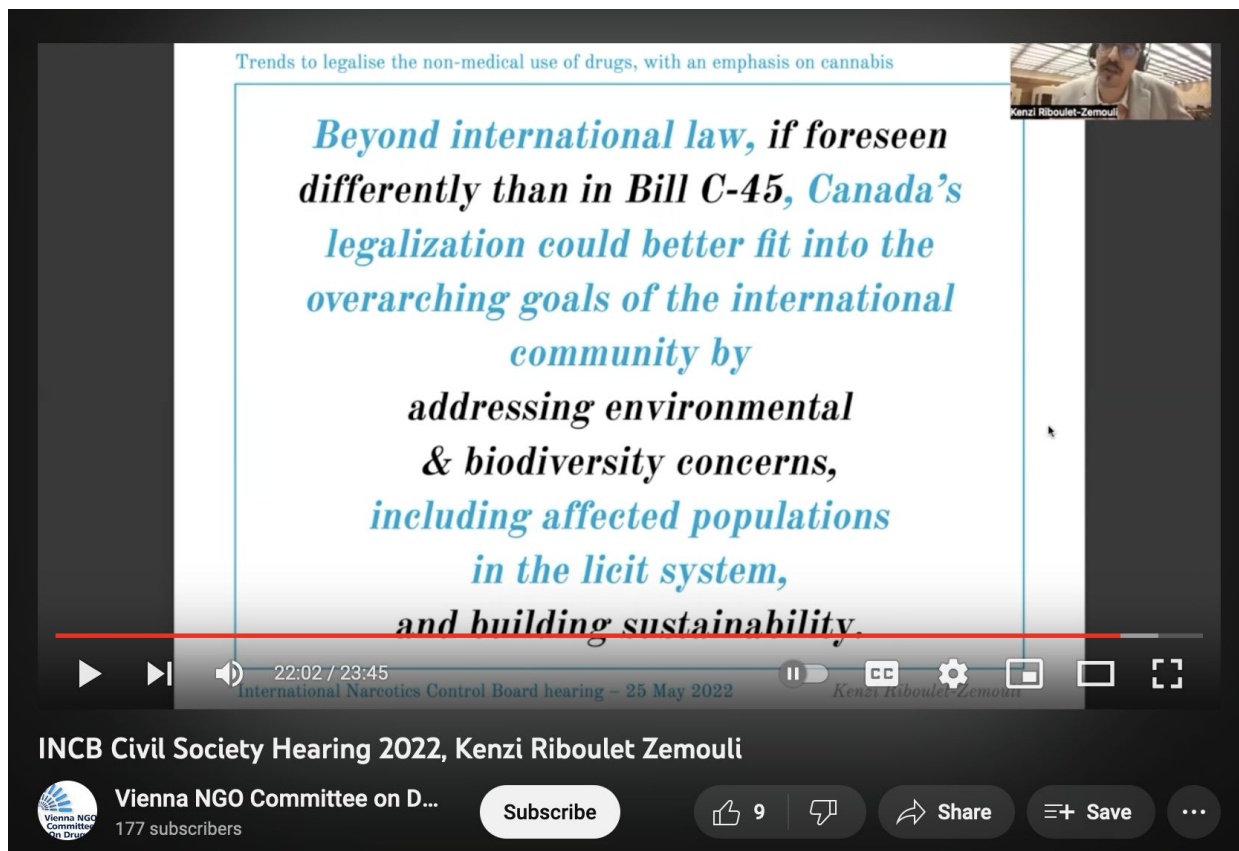
Vienna NGO Committee on D...  
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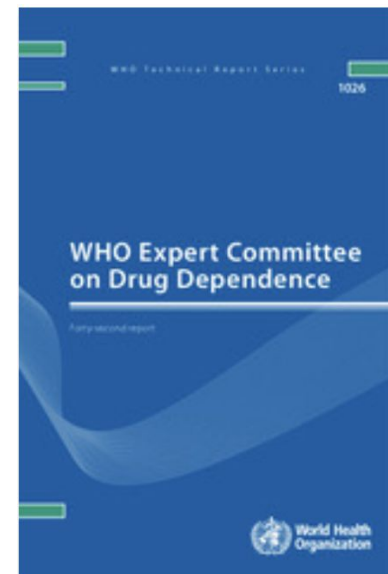
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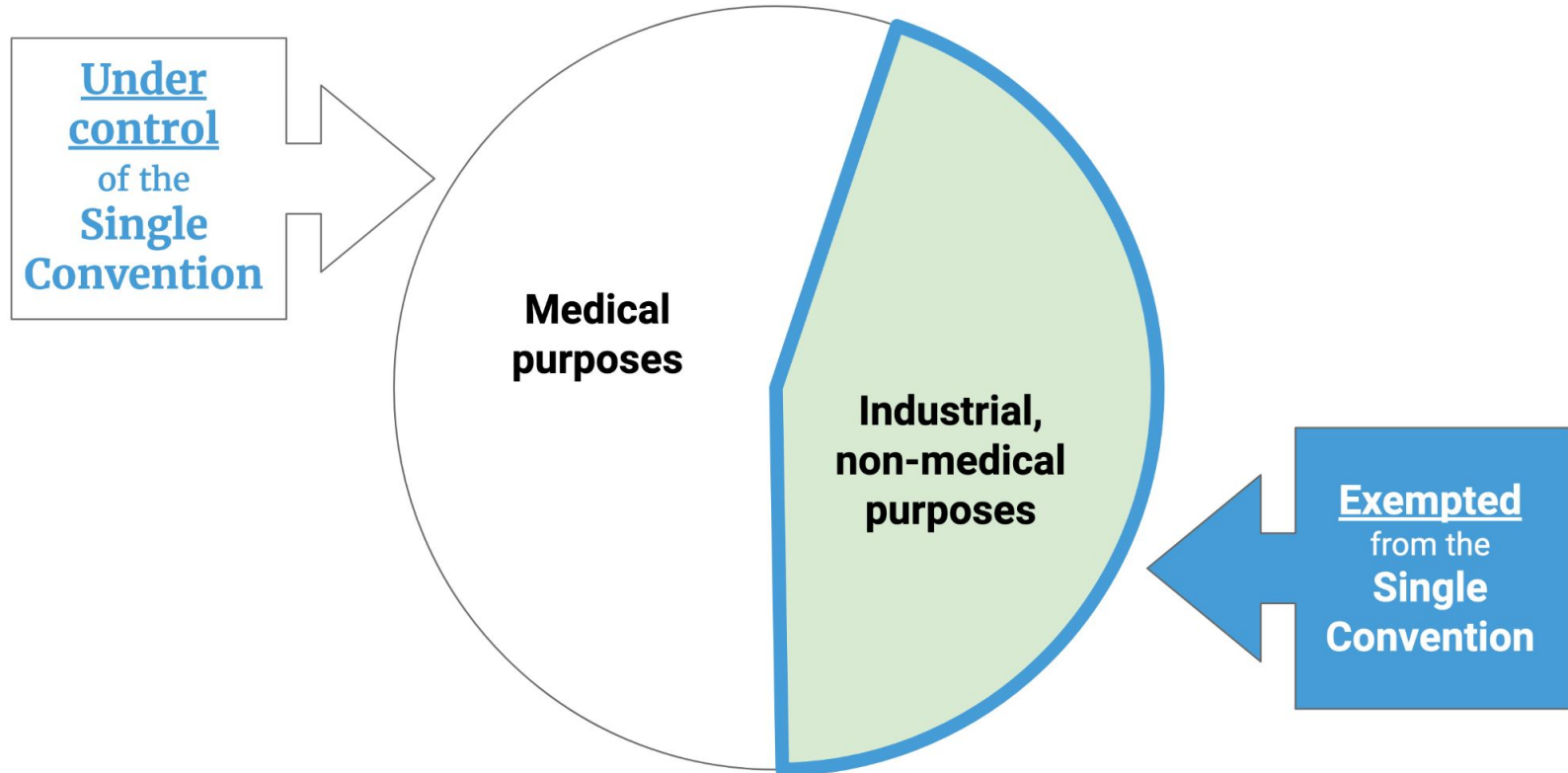
Newsroom ▾

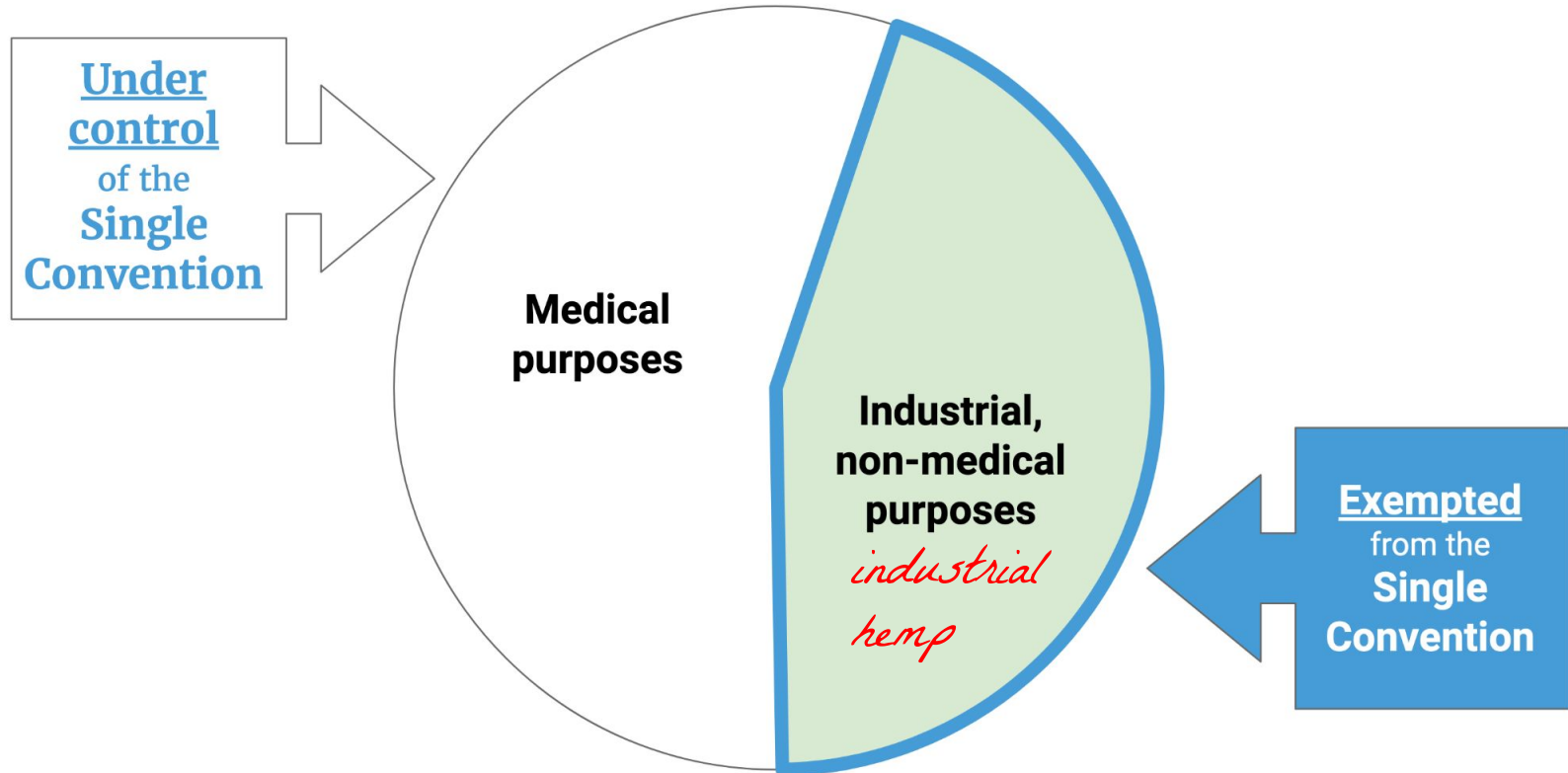
Emerging

Cannabidiol is one of several (probably 200) compounds of the cannabis plant.

At its November 2017 meeting, the WHO Expert Committee on Drug Dependence (ECDD) concluded that, in its pure state, cannabidiol does not appear to have abuse potential or cause harm. As such, as CBD is not currently a scheduled substance in its own right (only as a component of cannabis extracts), current information does not justify a change in this scheduling position and does not justify scheduling of the substance.









Press and Information

Court of Justice of the European Union  
**PRESS RELEASE No 141/20**  
Luxembourg, 19 November 2020

Judgment in Case C-663/18  
*B S and C A v Ministère public et  
Conseil national de l'ordre des pharmaciens*

**A Member State may not prohibit the marketing of cannabidiol (CBD) lawfully produced in another Member State when it is extracted from the *Cannabis sativa* plant in its entirety and not solely from its fibre and seeds**

*That prohibition may however be justified by the objective of protecting public health but must not go beyond what is necessary in order to attain it*



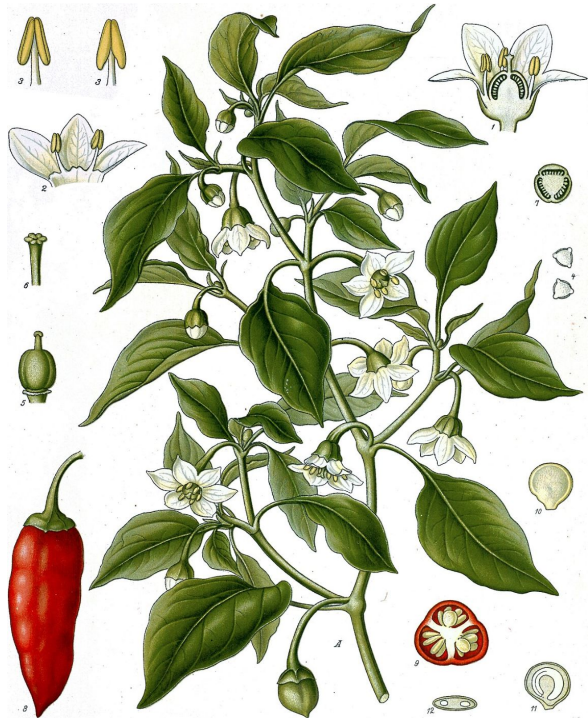
No THC.  
No CBD.

International law ignores THC and CBD as tools to measure, control, define, or otherwise address hemp; it is only based on “purposes” (industrial, or medical).

## Conclusion



### *Capsicum annuum* L.



### *Capsicum annuum* L.

chili pepper

chile

jalapeño

bell pepper

paprika

pimiento

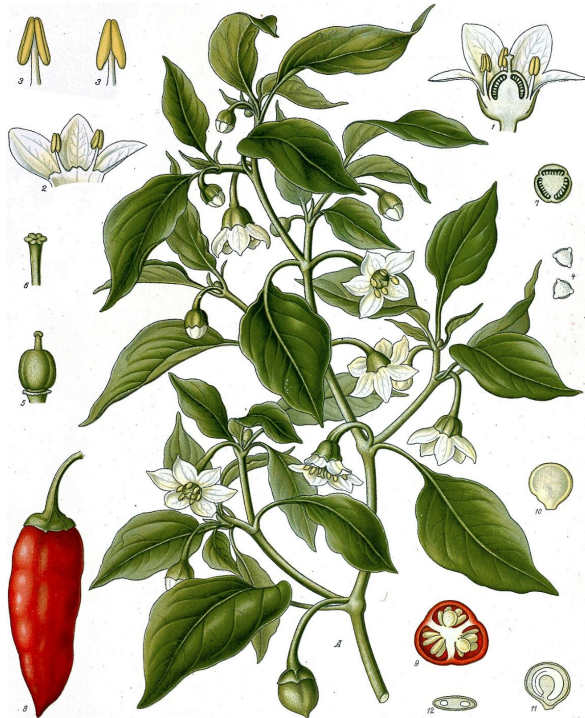
guindilla

ají

capsicum

...

## *Capsicum annuum* L.



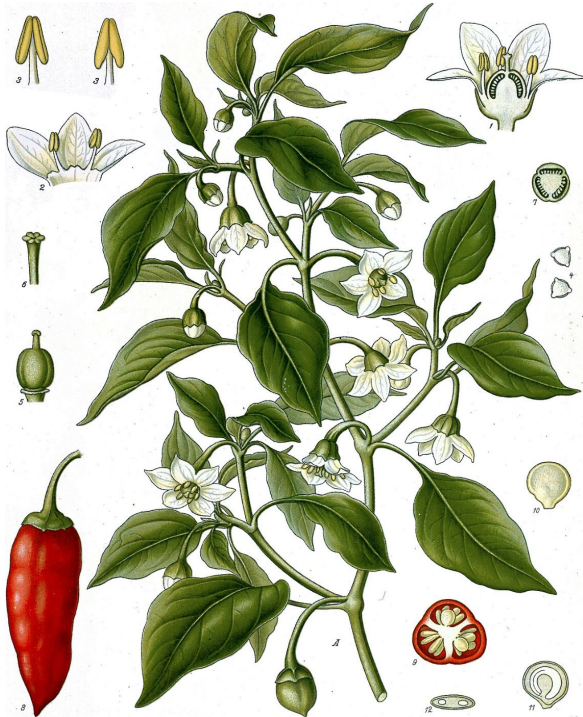
[Image](#): Franz Eugen Köhler, Köhler's Medizinal-Pflanzen (Wikimedia)

## What differs between “chilli” & “sweet” pepper?

*(They're all the same species)*

- Cultivar chosen
- Cultivation techniques
- Climatic conditions
- Harvesting moment
- Post-harvest drying and processing

### *Capsicum annuum* L.



[Image:](#) Franz Eugen Köhler, Köhler's Medizinal-Pflanzen (Wikimedia)

### “Pimientos del padrón”

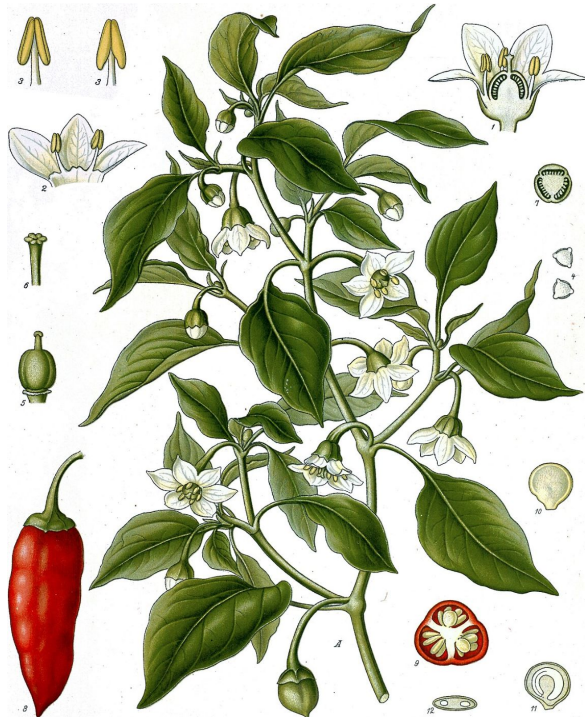


Only between 10 - 25 % of them are spicy  
(within a same plant/harvest batch)

[Image:](#) Luis Miguel Bugallo Sánchez, User:Lmbuga (Wikimedia)



### *Capsicum annuum* L.



Pharmaceutical ingredient (capsaicin)

Traditional remedies, herbal medicines

Cosmetic ingredient

Food, spice, food complement...

Other industrial products (pepper spray...)

Adult use & home cultivation

## *Capsicum annuum* L.

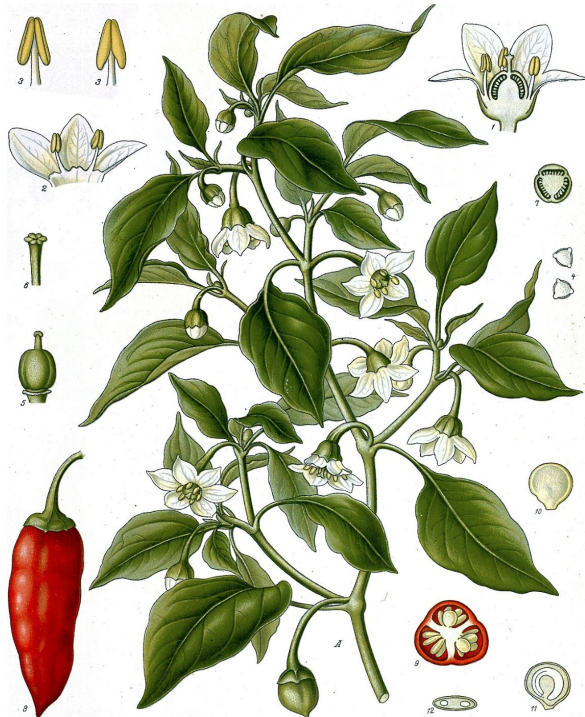
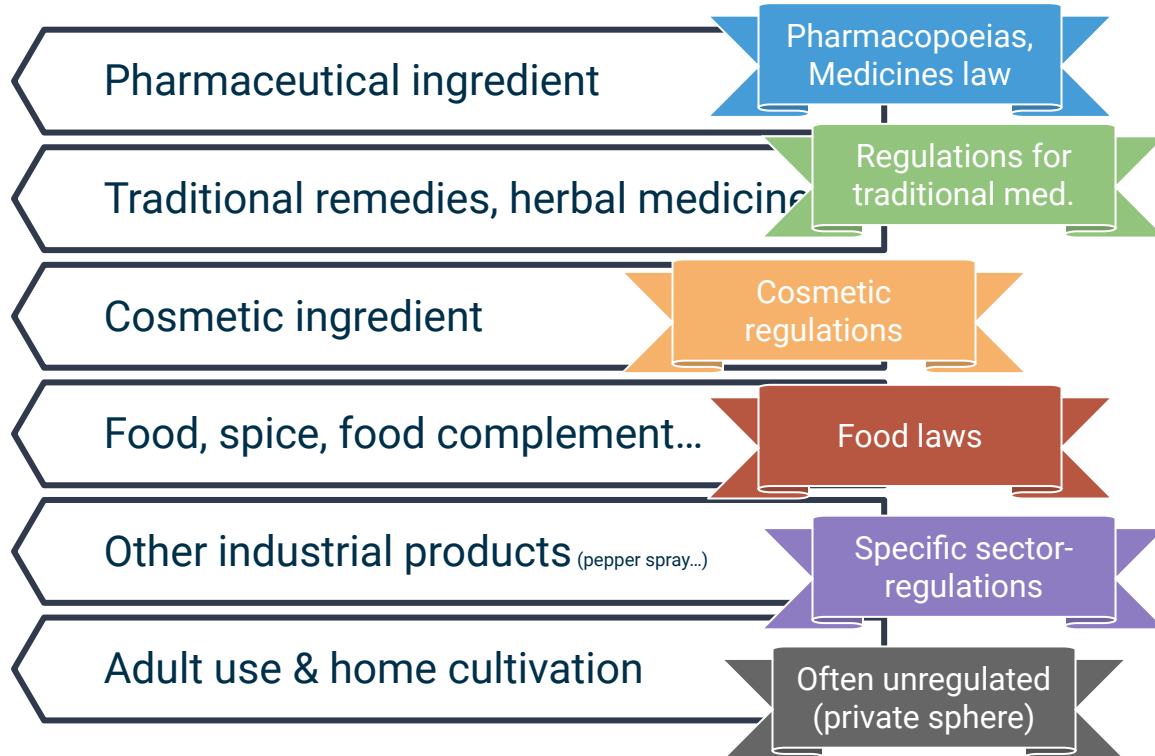


Image: Franz Eugen Köhler, Köhler's Medizinal-Pflanzen (Wikimedia)



## *Cannabis sativa* L.



Pharmaceutical ingredients

Traditional remedies, herbal medicines

Cosmetics, wellness products

Food, spice, food complement...

Other industrial products (industrial oils, materials, fiber...)

Adult use & home cultivation

"Medical  
marijuana"

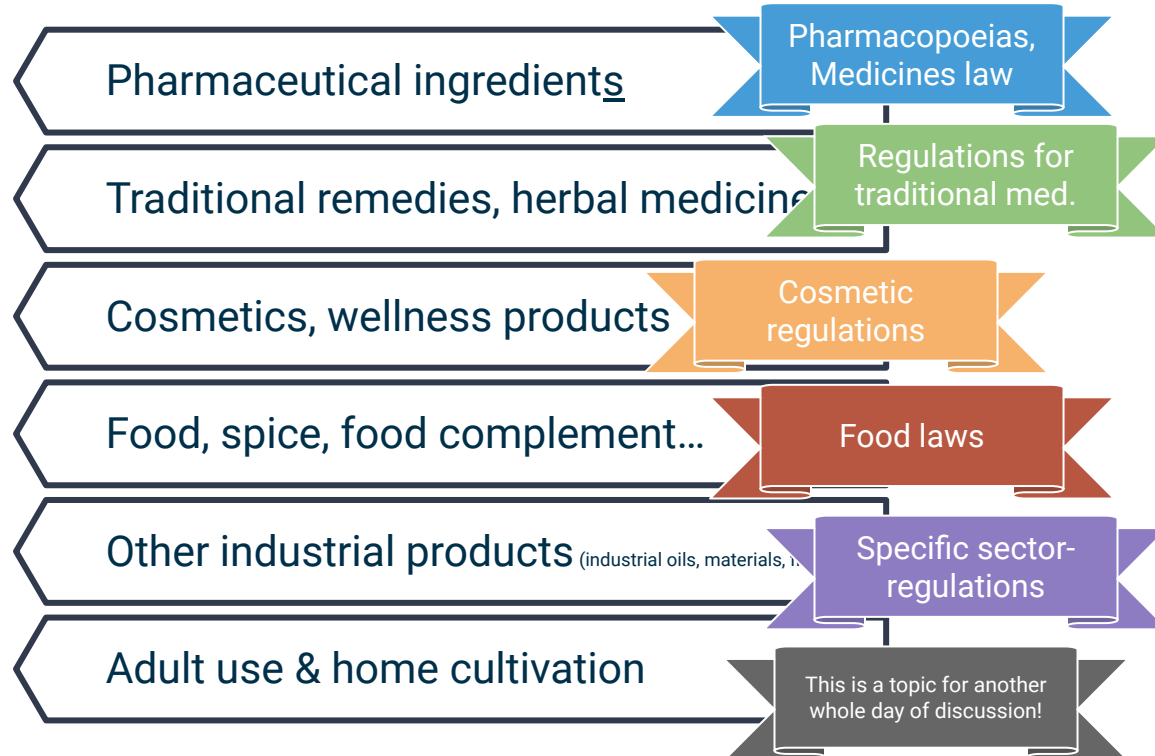
"Industrial  
hemp"

"Recreational  
marijuana"

### *Cannabis sativa* L.



Image: Franz Eugen Köhler, Köhler's Medizinal-Pflanzen (Wikimedia)



# Merci !

Website: [kenzi.zemou.li](http://kenzi.zemou.li)  
Contact: [kenzi@zemou.li](mailto:kenzi@zemou.li)

