Cannabis Taxonomy Update

Cannabis: when we use this word, what are we really talking about? Since the **1700's**, there has been constant debate among taxonomists, researchers, and within the cannabis community on whether cannabis is a monotypic (single species) or polytypic (multiple species) genus. Now, in **2020**, Trichome Institute is settling on an answer based on recent research that changes the way we discuss cannabis taxonomy.

After studying the research, including Robert Clarke and Mark Merlin's influential **2013** book, *Cannabis: Evolution and Ethnobotany*,Trichome Institute and many others gravitated toward identifying cannabis as polytypic. Clarke and Merlin proposed that cannabis includes three species (Indica, Sativa, and Ruderalis) with various subspecies. They further defined cannabis by dividing hemp and drug types and articulating a broad to narrow leaf spectrum based on the chemistry and physical attributes of each plant.

More recent research suggests cannabis is, in fact, monotypic. Genetic research from **2018** published in *Frontiers in Plant Science*, Latitudinal Adaptation and Genetic Insights Into the Origins of Cannabis sativa L. states: *"considering the distinctive phylogeographic structures and no reproductive isolation among members of these lineages, we recommend that Cannabis be recognized as a monotypic genus typified by Cannabis sativa L., containing three subspecies: subsp. sativa, subsp. indica, and subsp. ruderalis."*

A detailed description outlining the progression of the genetic and taxonomic research of cannabis can be found in the aforementioned article and within McPartland and Small's **2020** article in *Phytokeys*, *A classification of endangered high-THC cannabis (Cannabis sativa subsp. indica) domesticated and their wild relatives*.

What does this mean for Trichome Institute?

Considering the genetic research and now overwhelming evidence that cannabis is monotypic, Trichome Institute will correct how we discuss the taxonomy and speciation of cannabis.

Previously, we described BLM (Broad Leaf Marijuana) as a plant type dominant with characteristics stemming from *Cannabis **indica** subsp. **afghanica***. Based on the monotypic taxonomy of cannabis, this would now be called *Cannabis sativa* subsp**. indica** var**. afghanica.** We believe the most important aspect of taxonomy is understanding that the plants with high THC (drug, marijuana, intoxicating types) fall under the varieties *afghanica* and *indica*, and **sativa** varieties are considered **hemp** with low THC and high CBD content. The terms "indica" and "sativa" have been improperly used for decades.

Cannabis Terminology

Correct	Incorrect
Cannabis sativa subsp**.** *indica* var**.** ***afghanica***	Commonly referred to as "**Indica**"
Cannabis sativa subsp**.** *indica* var**.** ***indica***	Commonly referred to as "**Sativa**"

Considering the possibility that the taxonomy of cannabis will continue to be disputed, Trichome Institute is stepping away from this "great debate." Instead of focusing on the speciation of cannabis, which may not be pertinent to the domesticated hybrids that are being consumed today in both legal and black markets, we are going to focus on what matters most about cannabis: ***quality and effects.***

In the Interpening program we explain the confusion strain names bring to the industry. Although, there is a time and a place for strain names—e.g. for landrace and heirloom cultivars—most of the time they don't matter due to the inconsistency in chemistry (effects) from one harvest and cultivator to the next. The solution to the strain name dilemma is understanding interpening methodology. Interpening empowers the user to determine the quality and effects of the flower they are consuming, regardless of the name or description.

The solution to the speciation quagmire of cannabis is no different. Whether the genetics of a particular cultivar originate from an ***afghanica subspecies*** or an ***afghanica variety*** may not be important to many consumers. Most people don't want to be troubled with the dominant genetic origins of a domesticated hybridized strain that was manipulated for decades to produce higher THC percentages. Instead, they want to know how the flower will make them feel and that it's safe to consume.

To advance consumer education and empowerment by shining a clear light on cannabis quality and characteristics, Trichome Institute will update the Interpening book, tools, and course with this new information. Have patience with us, as this will take time. As a company that prides itself on teaching and guiding our students with accurate and reliable education, we will acknowledge when we are wrong and take immediate action to make corrections based on the latest scientific consensus.

Thank you for your dedication as students and supporters of Trichome Institute. We look forward to growing, learning, and evolving together as the science of cannabis unfolds in the many years to come.

Trichome Institute Team

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"The good thing about science that it's true whether or not you believe in it".
~Neil deGrasse Tyson