

June 18, 2021

Statement on the Regulated Maximum of THC in Industrial Hemp Inflorescence

The Canadian Hemp Trade Association is the leading organization in advancing the hemp industry in Canada, and I will attempt to respond to your specific inquiries in detail, as you have requested.

With the COVID situation, it seems like a century ago that I presented the lecture you mentioned on cannabis in Vancouver in 2018. I did indeed, as I have in other lectures, mention my viewpoint that the 0.3% criterion for THC content in the inflorescence of the plant, which I originated in 1976 on strictly taxonomic considerations, is a hindrance to the industry today when it is considered as a criterion for “safely” growing hemp on the basis of abuse potential. As I noted, the 0.3% criterion, when considered as a criterion for drug abuse potential is extremely conservative, and therefore has been useful for much of the world which adopted the criterion in limiting the possibility of drug abuse insofar as cannabis is concerned.

As I also noted, it is extremely difficult to get this criterion (or the even more conservative European criterion of 0.2%) changed because of lingering concern about drug abuse potential of cannabis, and the extremely conservative nature of those involved in drug legislation. I have in fact drawn my concerns to the attention of Health Canada in recent years, while participating in an advisory capacity, but the topic was not considered to merit action. Changing legislation, as has been drawn to my attention, can be a major exercise, especially when there are possibly associated international legislations, so one can understand reluctance to do so. But we both also understand that the current restrictions are handicapping the Canadian hemp industry.

It is well established that the “abuse” potential (i.e. ability to provoke a state of intoxication) in practical terms requires a concentration of approximately 1% THC (strictly, THC + the acidic form, THCA) in herbal material. This is not the only applicable safety consideration, but it is the predominant practical issue. As you are aware, the 0.3% THC criterion is often demanding for breeders to achieve and also produce cultivars with other desirable characteristics. These considerations constitute one reason why I have come to the opinion that 1% THC would be a more suitable criterion for Canadian legislation.

The second reason that I believe that a 1% THC criterion would be more appropriate today is that society and society’s evaluation of the abuse potential of cannabis have changed greatly. Cannabis (i.e. high-THC material) is legal today for adults in Canada and is widely available, so the need to regulate low-THC material (such as plants with 1% or less THC) has been dramatically reduced.

A third reason for re-examination of the 0.3% criterion has to do with how opium poppy (*Papaver somniferum*) plants are regulated. Opium poppy – a true ‘narcotic’ pharmacologically unlike marijuana and the world’s most significant drug of abuse – has far more abuse potential than marijuana, but a similar percentage content of chemicals (opioids) as a prohibition criterion has never been instituted. Indeed, ornamental opium poppy plants are widely grown and marketed without legal constraints throughout Canada, although they may have substantial content of opioids, and the same is true in much of the world. I have noted this in my publications. I have also drawn this situation to the attention of legislators and regulators over the years, who have chosen to simply ignore the inconsistency of treating a less dangerous plant (marijuana) much more harshly than a significantly more dangerous plant (opium poppy).

Summary Quote

When I and my colleagues in the 1970s created a botanical classification essentially separating “hemp” (basically races of Cannabis sativa employed for stem fibre and oilseed) from “marijuana” (races of Cannabis sativa employed as intoxicants) we were unaware that the criterion we employed, 0.3% THC, would be subsequently employed in legislation for the purpose of prohibition of plants with drug abuse potential.

Today, the cannabis marketplace legally supplies material that often exceeds 20% THC, whereas in the 1970s 5% THC was considered to represent premium quality. If we were to repeat our botanical studies using the same methods but with today’s varieties, the 0.3% criterion would undoubtedly be much higher.

Moreover, in the 1970s the prevailing climate was that “marijuana” was irredeemably bad and needed severe controls, and that “hemp” was a totally obsolete crop that simply did not deserve consideration. How things have changed! The medicinal potential of the plant – particularly the non-intoxicant CBD- has become widespread and Canada has become the oilseed champion of the world! Unfortunately, both the production of medicinal CBD and the breeding of superior oilseed varieties in Canada are compromised by the 0.3% criterion, which for the reasons I have outlined, is excessively demanding today and unreasonably penalizes Canadian industries.

Not to underestimate the difficulty of changing legislation to adopt a more reasonable criterion (such as 1%), but given the importance of the industry to Canada this is an extremely desirable goal.

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“Father of Canadian Hemp”