

European Industrial Hemp Association ([www.eiha.org](http://www.eiha.org))  
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## **Proposing guidance values for THC levels in hemp food**

**Hemp foods become increasingly popular with a double digit market expansion. But the ‘super food’ is overshadowed by its potentially psychotropic component THC. Only three countries in Europe have applied guidance limits for THC and there are no EU-wide regulations, creating an ambiguous situation for hemp food producers and consumers. A new study aims to develop scientifically sound THC guidance values at a European level that protect consumers without unnecessarily compromising the market.**

Hemp foods is a growing sector with a double digit market expansion expected globally. This is due to more dietary conscious consumers who increasingly demand more high value nutritious foods, also known as ‘*super foods*’. Hempseeds are particularly sought after due to their high content of Omega’s 3 and 6, at an exquisite balance for human well-being, along with highly digestible proteins comprised of all essential amino acids in a balanced ratio that satisfies the protein dietary needs of adults. Currently, hemp is considered a niche crop, cultivated on over 20,000 ha of land, in Europe. In 2014 about 20,000 metric tons of hemp seeds were used in the European Union in the food and feed market, a 20% increase compared to the volume 2008.

Further hemp market growth tends to be overshadowed by delta 9-tetrahydrocannabinol (THC), its potentially psychotropic component and a result of its genetic relation to the cannabis drug plant.

Having identified a lack of European-wide guidance values, the European Industrial Hemp Association (EIHA) requested nova-Institute to evaluate and propose new scientifically derived values for THC content in hemp foods for the European Commission, in order to assure consumers’ protection and sustain the industry’s current growth rate. Currently, in accordance with European law, hemp plant parts used for food originate from varieties allowed for industrial cultivation that do not exceed 0.2% THC (in dry matter of the upper 1/3 of the crop), compared to around 10 to 20% THC in its drug relative. However, there are no clear EU-wide regulations on the THC content in food goods, creating an ambiguous situation for hemp food producers and consumers. In Europe, only three countries – Germany, Belgium and Switzerland – have applied guidance values or limits for THC in food products, which tend to differ in purpose and scope, leaving both suppliers and consumers vulnerable and misinformed, and potentially representing extra regulatory costs.

The main aim of the paper ‘*Scientifically Sound Guidelines for THC in Food in Europe*’, published in July 2015, is to contribute to the development of scientifically sound THC guidance values for hemp foods at the European level that protect the consumer without unnecessarily compromising the market of hemp products. The document showcases the current status of THC regulations around the globe and reviewing the most up to date scientific literature on the adverse effects of THC, to then derive new scientifically based values for total THC uptake per person per day.

Due to its hemp market size and early publication of scientifically based guidance values in the year 2000, the German regulations tend to be more widely used in Europe. Therefore, the paper used the German initial methodology for a European wide regulatory framework. Using data from consumption values of different food goods and scientific papers on the effects of THC in humans, an “Acceptable Daily Intake” was derived, that is safe to consumers and unnecessarily restrictive to the industry at large.

The paper’s proposals allow for a clear understanding between expectations of consumers and responsibilities of traders at the European level. The guidance values proposed in this paper guarantee the availability of hemp to the consumers while safely protecting them from any undesirable side effects. This could result in potential expansion of the industry and yield direct and indirect investment and job creation in Europe and availability of domestic produced “super food”.

The proposed values, derived from solid scientific data, are less strict on final products than the currently applied German guidance values, with a lower uncertainty factor (see Table 1).

Table 1 Final nova-Institute/EIHA proposal for THC regulation in intermediate and final food goods per category, and equivalent values for listed countries (in mg/kg)

Final nova-Institute/EIHA proposal for THC regulation							
READY-TO-EAT PRODUCTS	NOVA PROPOSAL ON FINAL GOODS	THC GUIDELINES		THC LIMITS		INDUSTRIAL PLEDGE	
		GERMANY – BgVV	SWITZERLAND*	BELGIUM	CANADA	AUSTRALIA AND NEW ZEALAND	USA
Oils: Hemp oil	10	5	20	10	10	10	5
"High Volume" foods (Proteins): Hemp Tofu Hemp Milk Analogue	0.15	0.15	1	0.2	-	-	-
	0.15	0.005	0.2	0.2	-	0.2	-
"High Volume" foods (Carbohydrates): Bread. Baked Goods. Pasta. Breakfast Cereal	0.1	0.15	2	0.2	-	-	-
"Low Volume" foods: Sweets. Snacks	0.35	0.15	-	0.2	-	-	-
Alcoholic beverages: Spirits Beers	0.01	0.005	5	0.2	-	0.2	-
	0.01	0.005	0.2	0.2	-	0.2	-
Non-heated non-alcoholic beverages: Soft Drinks	0.01	0.005	0.2	0.2	-	0.2	-
Heated Non-alcoholic beverages: Herb and Fruit Teas	0.01	0.005	0.2	0.2	-	0.2	-

\* Aims at avoiding psychotropic effects

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Final products were grouped according to their characteristics and daily average consumption among the following categories: oils, “High Volume” foods (Proteins), “High Volume” foods (carbohydrates), “Low Volume” foods, alcoholic beverages, non-heated non-alcoholic beverages and heated non-alcoholic beverages. Some final products are given per category. As it is possible to see from the table, the new proposals are more complete than some of its world wide equivalents. Although these values are derived from the latest scientific data, they represent a first proposal on the European level and are, as more scientific evidence comes to light, open to review in the future.

Full report is available at: [www.eiha.org](http://www.eiha.org)

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The European Industrial Hemp Association (EIHA) is a consortium of the hemp-processing industry. It represents the common interest of industrial hemp farmers and producers, both nationally and on a European level. EIHA is the only consortium in the industrial hemp sector. This sector includes, inter alia, the use of hemp fibers, shavings, seeds and cannabinoids. Originally founded as an association for the European hemp industry, a quarter of the EIHA's members are based in countries outside of the EU.