

FSANZ Application A1039

Hemp Foods for Australia

Discussion points

1 . Are you aware of any evidence that consumers believe that low THC hemp foods have psychoactive effects?

NO. Hemp foods are being consumed around the world in many countries, including Canada, the United States, United Kingdom and the European Community. The exceptional nutritional profile (including all essential amino acids, and a balanced ratio of omega 3 to omega 6 fatty acids plus an array of beneficial micronutrients) present in the hemp seed is the main point of attraction to hemp food items. This is the point that is consistently publicized in the popular media and not any potential for psychoactive effects. It is reasonable to conclude that the consumers of hemp foods are generally more knowledgeable and better informed than the average consumer on matters of health and nutrition and well able to discriminate between nutrition and intoxication.

Even popular “integrative medicine” websites such as the following from Dr Andrew Weil, clearly pronounce that the amounts of THC in hemp foods is negligible and highly unlikely to produce psychoactive effects:

<http://www.drweil.com/drw/u/id/QAA345325>

2 Are you aware of any evidence that representations on low THC food (including labelling and advertising) mislead consumers by leading them to believe that low THC hemp foods have psychoactive effects when consumed?

NO. Hemp foods are widely sold in the United Kingdom and the European Community, Canada and the United States. It is a simple matter of examining the packaging of these products to see that this misleading claim is not being made. No instance of false or misleading advertising can be seen in any of the products that have been examined by the author. The key selling point is the nutritional value of the products, which is well-known in the health food industry, not any potential for psychoactivity.

3 Can you provide any evidence in addition to that presented in this consultation paper whether or not the consumption of low THC foods can

return a positive test for a THC drug test?

The analysis presented in the paper covers the topic well and reasonably establishes that at usual levels of consumption the issue of false positive testing does not occur. In a study in 2001 with a maximum content of 5 mg/kg of THC and a daily intake of up to 0.6 mg THC, no positive urine tests were obtained [G. Leson, P. Pless, F. Grotenhermen, H. Kalant, M. A. Elsohly. Evaluating the impact of hemp food consumption on workplace drug tests. J. Anal. Toxicol. 25, 691-698 (2001)]. These THC concentrations are consistent with those found in chromatographic studies of THC in hemp seeds [O. Zoller, P. Rhy, B. Zimmerli. High-performance liquid chromatographic determination of Δ^9 -tetrahydrocannabinol and the corresponding acid in hemp containing foods with special regard to the fluorescence properties of Δ^9 -tetrahydrocannabinol. J. Chromatogr. A 872, 101-110 (2000)]

4 Can you provide information on THC testing in Australia and NZ, particularly with regard to regulatory limits of THC that may be set?

No.

5 . Can you provide information to indicate whether there will be an impact on the cost of testing for THC in humans that could arise from an approval of hemp foods?

The cost of testing for THC in humans will not be increased following an approval of hemp foods, simply because no false positives are likely to be encountered (as documented above). In the USA, where mandatory drug testing is much more widespread than in Australia, this has not surfaced as an issue.

6 . Do you agree that there are adequate controls currently in place, or that would be achieved by imposing maximum limits for THC, to mitigate any risk of high THC Cannabis varieties entering the food supply?

There is really a minimal risk of high THC cannabis entering the food supply. Hemp food is exclusively derived from hemp seed which are produced from industrial hemp plantations, which are subject to regulatory testing to ensure low levels of THC. The majority of high THC cannabis is now grown by vegetative propagation from females of known potency and growth characteristics. There is an international market in high THC cannabis seeds, produced by specialist breeders principally in Holland and Canada. These seeds are bought by prospective growers who use them to establish their stock female plants. Typically, the breeders sell the seeds in packets of ten with prices ranging from \$20 to \$100, although exceptional varieties can cost

even more. It is inconceivable that these seeds would be used as food due to their scarcity and expense. Additionally, even in the case of large scale outdoor drug plantations only seedless plants are grown, because the male plants are removed to prevent pollination and seed formation. Additionally, even if the seeds of a high THC producing plant were to be used as food, those seeds have no THC themselves, only the potential to produce THC in the flower of the mature plant.

7 . Do you consider that trade practices legislation in Australia and New Zealand is sufficient to mitigate the potential risk that representations (including labelling and advertising) of hemp foods could suggest psychoactive properties relating to consumption of those foods? If not, what labelling and representations of hemp foods should be considered?

This question relates to question 2. The advertising standards in Australia are rather stringent and quite adequate to prevent any false or misleading claims being made. Those interested in marketing hemp seed products intend to use the ample nutritional benefits as the selling point, not suggestions of psychoactivity.

8 What is the potential opportunity costs for current producers of hemp crops if hemp foods continue to be prohibited?

Hemp crops may be grown for the production of long and short fibre, for seed production or co-cultured to yield both seed and fibre. Currently in Australia there is a paucity of fibre processing capacity and that is limiting the growth of the hemp industry. The essential problem for the growth of the fibre hemp industry is achieving a sufficient size to justify the establishment of expensive industrial capacity, such as a paper pulp mill. The minimum scale of such a plant would be around 100,000 tons annually, necessitating up to 10,000 hectares under cultivation. For the production of medium density particle board at least 1000 hectares would be required.

On the other hand an area as small as 100 hectares could form the basis of a hemp seed industry and provide commercial justification for the more modest costs of the processing machinery needed to convert the seed into a saleable commodity. Thus, the hemp seed industry could provide the core commercial base for establishing a hemp industry in Australia and then from there expand to fibre scale plantations. In that regard the legalisation of hemp as a food would facilitate the development of the broader hemp industries.

9 What are the potential benefits to food manufacturers if hemp foods were approved for use?

Amending the current inappropriate restrictions on the food uses of hemp

seed in Australia would expand the range of products able to be manufactured. When added to existing foods such as soy milk in place of canola oil, hemp seed would add considerably to the nutritional benefit of the product. An amendment to hemp food legislation would also open the way for production of a range of new foods, such as hemp milk and ice cream. For those suffering allergies to soy or dairy products this would provide a valuable alternative source of these types of foods. Manufacturers could use the hemp seed to produce concentrated health bars which would find a ready use in a range of markets from school lunches, hiking and camping food through to emergency food provisions as part of a natural disaster relief effort. Using Australia's environmental credentials and the excellent environmental credentials of hemp would open a potentially very large export market.

10 . Are there likely to be any additional costs for food manufacturers wishing to supply hemp foods?

Hemp seed can be produced economically, especially when economies of scale and dual fibre/seed plantations are operating. The seed requires only minimal processing before being used in most food preparation. It is stable and can be kept for months without special storage needs. Over many years of food use overseas no significant problem with allergies have arisen, so existing food processing machinery can be used with no expensive decontamination procedures. Therefore, no additional costs would be anticipated.

11 . Would the approval of low THC hemp foods increase the cost of food enforcement beyond what would be expected of the approval of any other substance added to food, or other food regulatory change?

No additional costs could be reasonably anticipated. Hemp seed, especially hulled hemp seed contains negligible quantities of THC. Therefore, any food manufactured from these will also be virtually free of THC, making product testing unnecessary. If testing is considered necessary it would only be necessary to batch test at the first stage of production i.e. the seed producer, with all downstream producers covered by the certainty that their products would be compliant.

12 . What other legislation would affect or be affected by approval of hemp foods?

There need be minimal changes to existing legislation. Australia is currently the only country on Earth to restrict the food uses of hemp and no legislative or enforcement issues, to my knowledge, have arisen in other countries. Although locally produced hemp foods are preferred minor modifications to the Customs regulations would need to be made to facilitate any import of

food grade hemp seeds. The changes would be of a similar nature to the industrial hemp laws, where exemptions to existing restrictions were introduced without difficulty or problems.

13 . Would the approval of hemp food have an impact on hemp regulations in Australia and New Zealand? Would industrial hemp destined for use in food require additional controls to those already specified in industrial hemp regulations?

Hemp seed is currently a legal item of commerce in Australia, currently being used in the manufacture of cosmetics and other topical products, as well as a pet food supplement. No additional controls could conceivably be required, especially when dealing with processed items incapable of germination, such as hulled seeds.

14 . Would food manufacturers be required to be licensed under existing hemp regulations?

As stated above the current situation in Australia is that any person can receive and process seed and fibre without restriction, providing it has been produced by a licensed grower. This has been confirmed in NSW by the Department of Primary Industry. There is no conceivable need to add additional regulation to a system that is currently working adequately.

15 . Would additional costs be incurred by government agencies responsible for granting licenses for the cultivation of hemp as a result of approval of hemp foods?

With the expansion of the current hemp industry by the addition of food production there would be an increase in the number of farmers receiving licenses. However, no additional costs would be incurred because the system as it is currently operates is based on cost recovery, by fees paid.

16 . Can you identify risk management options that have not been considered in the impact analysis?

There is minimal actual risk associated with changing the regulation so no risk management options need be considered. In my opinion, joining the world community and legalising hemp foods for consumption in Australia and New Zealand poses no risk, but a win-win scenario for farmers, producers and consumers.

17 . Can you identify any other costs and benefits for any of the risk management options considered in this paper?

Any costs associated with adding hemp food to the approved schedule would be nil or minimal. Risks are non-existent whilst the benefits to farmers, processors and consumers would be great.

18 . Do you have a view about the appropriate preferred regulatory options regarding the approval of hemp foods, based on benefits and costs?

My preferred regulatory option is that of minimal intervention, leading to a rapid normalisation of the hemp food industry. The stated aim of the food regulations is to protect the health and well-being of the Australian population. This is best done by expediting the introduction of hemp foods, whose ample nutritional profile will greatly benefit the population. Currently mandatory testing already exist on the THC concentrations allowed in hemp seeds. This should be sufficient to prevent any detrimental effects. What we are seeking is not radical or ground breaking change, but simply to join the world community in adopting a safe and beneficial food.

Dr Sandeep Gupta MBBS FRACGP FACNEM
Medicine on Second, 50 Second Avenue, Maroochydore QLD 4556

