

Seamons, Colleen

From: Brian Gage [braingage@s2h.com.au]
Sent: Monday, 18 April 2011 1:03 PM
To: submissions
Subject: Submission of Application A1039- low THC hemp as a food
Attachments: Submission for Low THC industrial hemp foods as a legal hemp food.docx; 20100802_S2h_Hemp Seed Analysis 1.JPG; 20100802_S2h_Hemp Seed Analysis 2.JPG; Canadian hemp attachment; For low THC hemp food for Canada.docx; China Attachment.docx; France Hemp Attachemnt.docx

To FSANZ,

I have attached my submission and more documentation to go with my submission.

Best regards,

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Food Standards Australia New Zealand (FSANZ)

Submission for Application A1039- Consultation on low THC industrial hemp seeds as a food.

Questions for submitters from FSANZ to answer.

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

All WTO countries except Australia and New Zealand have the legal right to now be selling low THC hemp foods. The selling of hemp foods in WTO countries has been going on for many years now and selling low THC for the nutritional benefits that hemp seed food supplies have not shown that consumers believe there would be any psychoactive effects. WTO countries have helped in informing the public that low THC hemp foods have such a healthy nutritional benefit that there are now no big issues of psychoactive effects for many years now. Labeling and education have been the main factors in this industry taking this notion of THC out of the low THC hemp food industry. Australian and New Zealand governments could help reinforce the nutritional value of low THC hemp foods by educating the public and backing this important new industry to the betterment of all.

Application 360-hemp as a novel food (2002);

THC is associated with effects on the central nervous system, the immune system, reproduction, and post-natal development, as well as with psychotropic effects. In relation to the latter, the studies available indicate the more sensitive individuals require a minimum oral dose of 10 mg THC per person and most individuals require an oral dose of 15-20 mg per person in order to experience an effect. Thus, the lowest psychotropic effect level is in the order of 140 microgram /kg bw (body weight).

A previous Application to FSANZ, Application A360, requested the approval of industrial hemp as a food. During the assessment of Application A360, FSANZ did not identify any safety concerns arising from the potential consumption of hemp foods.

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

Low THC hemp food companies around the world have worked for years now to separate the difference between their low THC industrial hemp foods and what people would use for a high psychoactive effect from what most people call marihuana. Some of the low THC industrial hemp food companies are now million dollar companies that do everything they can to follow the stringent laws in place and make it very clear that it is their nutritional advantages is what their customers are interested in. Australia is now years behind all the countries that dealt with this issue over ten years ago and Australia had the chance in 2002 to give hemp growers in Australia an opportunity to be a big competitor in this growing low THC hemp food industry. I would like to see the "evidence" where the Australian government got the idea that we would give the wrong idea to the Australian public if low THC hemp foods were allowed back in 2002 when the initial submission was addressed.

3. Can you provide any evidence in addition to that presented in this Consultation Paper whether or not the consumption of low THC hemp foods can return a positive result for a THC drug test?

This has been brought up before with a lot of jobs in the US where a lot of companies' do testing for THC in workers and finding the low THC levels in low THC hemp foods have not exceeded THC limits on workers being tested for THC. "Evaluating Interference of THC in Hemp Food Products with Employee Drug Testing", Study Summary, prepared by Gero Leson, D. Env. and Petra Pless. Leson Environmental Consulting, Berkeley, California, July 2000. (Attachment). This is one test of many that shows low THC hemp foods do not cause psychoactive effects or take workers over the limit of THC tests for jobs being tested. If you want more studies that have been done on this subject I will supply them.

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

My suggestion is that drug testing is being done in many workplaces around Australia already, such as mining, military services and many other industries that have these regulatory limits of THC set already. It might be advised to look at what some of the other countries have set up to try and keep a uniform regulatory limit so international companies could follow similar regulations when they come to Australia or New Zealand. The more international standards that can be set at this early stage would help the low THC hemp foods export market once enough hectares are planted.

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?

Testing for THC levels in people is already in place where companies require it in Australia. Having a Western Australian Industrial Hemp License, I have to test my plants at every harvest to make sure I am within the .35 THC levels that Western Australia Industrial Hemp Act requires. Part of importing low THC industrial hemp seeds into Western Australia is getting certification from the company or individual selling the seed that their seeds are certified by a proper authority to meet the standards required in Western Australia. To my knowledge this has not been an issue to Canada's hemp food industry who has been selling most of their hemp food products to the US whose laws are very strict concerning the THC levels in foods. These tests are already in place to cover THC limits on people where businesses deem it necessary so they would be no extra impact on the cost of testing for THC levels.

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?

As I have mentioned previously, I do believe that the regulatory laws in place seem to mitigate the risk of high THC Cannabis varieties entering the food supply. These same issues have been dealt with in Europe and Canada with the same controls Australia has in place as part of the procedure of growing low THC industrial hemp crops. I would also like to make it very clear that the seeds themselves contain minuscule amounts of THC. This has not been an issue in any of the countries you have mentioned, Canada, Europe, US and China, which have been selling hemp foods for many years now. If someone is caught trying to sell high THC Cannabis in the low THC hemp food industry there are criminal laws in place to deal with these issues.

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 other conditions regarding labelling and representations of hemp foods should be considered?

Yes, I do. Nutritional value is what will make low THC industrial hemp seeds such a valuable food product. To my knowledge this is what has helped the industrial hemp industry around the world. This has put industrial hemp growers in Australia and New Zealand at such a disadvantage as compared to all the WTO countries that can sell hemp seed as food which is one the most valuable parts of the low THC hemp crop and one of the easiest parts of the hemp plant to manufacture into a finished valuable product. How can Australia and New Zealand be the only two WTO countries that do not allow this excellent nutritional food as a food product? Have all WTO countries got it wrong on this THC risk or is Australia and New Zealand breaching WTO laws not allowing this nutritional hemp food as a legal food product here in Australia and New Zealand.

8. What is the potential opportunity cost for current producers of hemp crops if hemp foods continue to be prohibited? Please provide quantitative data if available.

Looking at Canada Hemp Production in 2009 you would see that most of the hemp production was for seed to be turned into hemp foods. In 2009, Canada sold \$8,000,000 worth of hemp food products with most of it being sold to their neighbors in the US. (Government of Alberta, Agriculture and Rural Development/website). Australia needs a level playing field to get this industry up and going to the potential it can be. My company, Synergy2hemp Pty. Ltd, has been doing salinity trials to get seed strains that could be put to use on, more than a million hectares in WA alone, of salt affected land. How does that compare to less than 27,000 acres planted in Canada in 2009. It is not only seed that the industrial hemp industry is looking at either. After the seed is harvested you could use the stems for a paper making process that can use the effluents out of the paper process to irrigate hemp crops. There is also building materials, insulation, load bearing beams and many more products to look at as the hemp industry expands. This will be a multi-billion dollar industry but food is the highest value crop product and easiest to process which make it critical to help start off all these other products in the hemp industry. Using these Canadian numbers shows that once Australia was able to add low THC hemp foods for sale without other value adding products the seed planted on one million acres of hemp could have a value with just food of \$2,000,000,000. Start adding in the production of other hemp products made from the same harvest of hemp crops shows a potential opportunity that this industry can add to both Australian and New Zealand economies.

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

I have attached the testing results by ChemCentre who did the nutritional value of the seeds I harvested last year here in WA with my company Synergy2hemp Pty Ltd. I would have you look at the total unsaturated fat of 90.2 which leaves saturated fat at 9.8. This is a very good example of what health authorities want people to have in their diets. Next, a level of 15.8 for Omega 3 to go along with a level of 57.5 Omega 6, which is one of the best ratios of omegas for our bodies to assimilate both omegas. We can grow this Omega 3 in organic conditions with no pesticides or insecticides to put in capsules or in a variety of foods. This could help Health Departments around Australia and New Zealand with obesity, diabetes and other medical issues that are facing the Australian and New Zealand public. Low THC hemp foods can be turned into many different food products such as hemp protein powder, hemp beverages, hemp seed butter, hemp ice cream, hemp seed oil, hemp seed flour, dehulled hemp seed and whole seeds that can be added to cereals and muesli's. I have attached information from Canada, China and France to show all the benefits these countries see from a legal low THC hemp food. How can this nutritional organic food not be a legal food in Australia when it is in all other WTO countries? WHY???

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

This is where the Federal and State Health Ministers need to step up and help educate the public about this excellent food source. After turning down the hemp food application in 2002 with regards to giving the public the wrong impression it is time government helped Australian farmers and the public understand how many advantages this hemp food has as a good nutritional local food source and as a rotational crop to farmers. Like any new industry it is important the government helps support this industry in financial ways that promote it locally and as an export industry.

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?

The licensed Australia and New Zealand low THC Industrial Hemp Growers will be enforcing all the testing to make sure that this industry is only dealing with low THC hemp food. As low THC hemp food starts up it would be good to have a Australian standard that is the same throughout Australia and that the Federal Health Minister with the State Health Ministers be part of this national standard which could be similar to other hemp growing countries have in place to work towards a international standard that would suite all countries. The standards for hemp food enforcement are already in place and places like Canada have a similar enforcement which has worked for them since 1998.

12. What other legislation in Australia and New Zealand would affect or be affected by approval of hemp foods?

Most of the issues of dealing with hemp foods could be covered in federal legislation changes to have a national standard which could be similar to other WTO countries legislation. International standards would a good place to aim for with new legislation. Labelling could be a possible way to make sure there are no questions about where it is grown or to testing nutritional value each year to make sure nothing changes through the next generation of seed crop.

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

The existing Industrial Hemp Act in Western Australia has a regulation that works to allow the exporting of hemp foods to other countries. I do not see why it would have to be any different in Australia and New Zealand when regulations exist for testing low THC crops in Australia and New Zealand and the same for importing tested certified low THC hemp seeds from other countries. Anyone not following regulations would be liable for criminal charges for breaching hemp regulations. All low THC hemp crops

are tested before harvest which would cover the food requirement controls needed to certify hemp seeds THC levels before they could be used in hemp foods.

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

Any person or company that deals with low THC industrial hemp has to be licensed or attached to a license that supplies them there hemp food. An industrial hemp license holder could have a manufacturer under their license for supplying the low hemp seed for food in products they would add to products already produced or making of new hemp seed food products. Manufacturers could apply for their own license but would probably find it easier to let the company or person supplying the hemp food product to supply them by adding their name to their license. Then food manufacturers would not have to deal with all the regulations that apply to an industrial hemp license. These are the two choices in WA of food manufacturers that would want to add low THC hemp food to the products they sell.

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?

In Western Australia all state government agencies charge fees for any work needed to be done by them for the industrial hemp license holder. All costs with the approval of hemp foods are carried by the industrial hemp license holder in the Western Australian Industrial Hemp Act. I am sure this is how it could be set up in Australia and New Zealand so no additional costs would be incurred by government agencies.

16. Can you identify other risk management options that have not been considered in the impact analysis? Comments on the possible costs and benefits are welcome.

My research of the WTO countries already dealing with hemp foods have not shown any stories that would identify any other risk management options about the impact of hemp foods. Your focus on the psychoactive effects has long been dealt with in the WTO countries growing this nutritional low THC hemp crop. Australian and New Zealand have been put back over eight years since the first Hemp food

Application 360 was disallowed and we need to realize this hemp food industry has been continuing on with positive results around the world. Australia has an opportunity to grow this rotational crop on a scale that is not happening anywhere in the world at this time. In order to be able to accomplish this we need to be able to sell this nutritional food locally and then to work on our Asian exports. The cost of not having seed stains that would be eight seasons on to adapting to our climate changing conditions is not replaceable. Countries like China who are spending millions of dollars on R&D in the hemp industry are looking for partners like Australia to bring the IP of processing products from this plant to get this industry going for the benefit of this planet of ours. Hemp food is the critical part of this hemp industry in Australia and New Zealand to bring it level with WTO countries it is grown now. With low THC hemp foods legal we will be able to show how much more financial value the crops will improve with the hemp stem paper process with no chlorine which could be the start of new industries in country areas where it is being grown. Insulation, load bearing beams, railway sleepers, building materials and many more value adding products could be started up in up to 100 kilometre radius areas. This will bring work to the farming areas growing the low THC hemp crops to take the raw material and process it locally to send off a value adding finished export product.

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

Yes. Hemp is the only food that can be grown with a negative carbon footprint. I believe that the other products produced after the seed is harvested could help reduce carbon even more by locking it into building materials that will hold the carbon for at least 50 to 100 years. Hemp seed grown on a large scale like Australia could do it would be a positive way to impact on the problems of world hunger. This would be a big new industry for country Australia that would also have the potential to improve public health throughout all Australia and New Zealand.

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

Yes. In a lot of the countries now growing low THC hemp foods they have set up their Health Departments to run the hemp industry considering its nutritional benefits. I think this is an important part of helping the hemp industry to show all the beneficial health benefits through Federal and State Health Departments. Another advantage is there would be no conflict of interest with the growing of low THC industrial hemp with the Department of Agriculture where in WA that is the case. I would hope like any new industry starting up in Australia that the federal and state governments would help this industry which will promote more employment and be beneficial in dealing with farming problems like salinity, lack of irrigation and soil improvement.

Questions to be answered.

Are there any chemical safety concerns associated with the consumption of hemp foods?

No. Hemp crops are not in need of pesticides or insecticides which limits most of the chemical safety concerns with producing low THC hemp food products.

What is the nutritional profile of hemp foods?

I have attached the testing of my seed harvest from last year. I have contact with hemp food companies that supply all the nutritional information on their hemp food products and have attached some of the bigger Canadian company's information. It may vary a little but that would have to do with the R&D hemp food companies are doing to improve the nutritional benefits of their hemp seeds R & D programs.

Are there any other risks, in a food regulatory sense, relating to an approval of hemp foods?

Not to my knowledge.

8.1 Affected Parties

Those sectors of the food industry wishing to market the food products containing industrial hemp.

The food industries choice would be buying low THC hemp foods from a licensed grower or importer. They could apply for the appropriate license if they thought it would better suite their business to be dealing with other countries or possibly wanting to grow their own seed. This hemp food industry is just a fairly new industry starting up and I would think most businesses would like the benefits of the nutritional value of the hemp seed and not the government red tape that goes with this industry. Labelling will be important to the hemp food industry to show how hemp seed provides a uniquely nutritionally dense food combining an ideal of ratio of omega 3 and omega 6, a balanced protein and a range of vitamins and minerals in high concentrations. The wide range of products available from low THC hemp seeds will open the door for food companies to add hemp seeds to products already being produced by them.

Those sectors of the food industry wishing to market the food products containing industrial hemp

The wide range of products available from low THC hemp seeds will open the door for food companies to add hemp seeds to products already being produced. The processing of low THC industrial hemp seeds into different food products will once again supply employment and give the public many ways to enjoy the nutritional benefits that come with eating of low THC hemp seed food products. My company Synergy2hemp has done R&D on using a unique way of pounding hemp seeds with different herbs and spices to give different tastes for specific export markets. In WA, with my Industrial Hemp License I am able to export hemp food products but not sell hemp food here in WA which makes it a lot harder to trial the local market before reaching out for the export markets. How can it be that I can export this hemp food product to any WTO country I can find a market for and yet I do not have the same equal rights to sell it in Australia or New Zealand?

Consumers, who will be exposed to the availability of hemp food products, including those who choose to consume hemp food products.

Consumers who will be able to buy hemp ice cream and get all the nutritional daily requirements of omega 3 and omega 6, along with 100 percent fruit juices that add hemp seed oil to also supply nutritional daily requirements of vitamins and minerals your body doesn't produce but the hemp food can supply. Consumers will have a lot of variety to attain their minimum nutritional daily requirements that will help Australia and New Zealand to lift health standards in the young and old. Older people who do not eat much will find they can get their daily nutritional requirements in a smaller serve of

something that hemp seed oil can be added to. These are just a few benefits that consumers of all ages will find allowing hemp foods into Australia and New Zealand under this chance to be a legal food.

Australian, State, Territory and New Zealand Government enforcement agencies that enforce food regulations.

All the enforcement agencies that enforce food regulations are in place for this to happen. Industrial hemp laws are all in place to oversee that only low THC hemp seeds that are certified tested will be available to the hemp food industry. Any breaking of this law would be dealt with the local police like it is now set up. Most of these agencies require payment for their services and if it is not already in place I am sure that costs could be organized so every part of this process is covered in the cost of selling the hemp foods.

The hemp industry including farmers wishing to cultivate hemp commercially and importers who wish to import hemp products

Hemp laws are in place in most states and New Zealand that deal with these issues. If you want to be part of this area in the hemp industry you will have to go through the appropriate channels to get an industrial hemp license like everyone else. After getting an industrial hemp license, if you break any of these regulations it will get you charged with criminal charges. Once you have a criminal record you will not be eligible to have an industrial hemp license.

Law enforcement agencies, including police, that enforce illicit drug legislation.

Once the appropriate authority thinks there might be something illegal going on the police will be brought in and look at the matter. This has not been an issue in WTO countries that are now allowing hemp food to be consumed. Legislation is in place to deal with illicit drug problems.

Objectives

The protection of public health and safety.

The nutritional attachments I have sent you will show how beneficial this food is to the public health. The safety issues have regulations that are already in place to stop the use of high THC foods being any part of this industry. This seems to be the big concern of FSANZ and yet I have found no other country that has mentioned high THC as being a problem with the low THC hemp food industries to date.

The promotions of consistency between domestic and international food standards.

This is something the WTO has been working on for years. It is an ongoing concern and looked at on a regular basis. Canada has dealt with this so that their main export market in the US has no problem with them importing Canadian hemp foods which are now sold in many different states whose laws can vary.

The desirability of an efficient and internationally competitive food industry.

An efficient food industry needs to work on local customers to build the reputation that can make it an internationally competitive food industry. This is not possible at this time and makes it very difficult to start a new food industry with it not being allowed as a legal food in the country it comes from. Competitive means there is a fairly level playing field for all participants playing the same game and at the moment Australia and New Zealand are at a big disadvantage with the low THC hemp food regulations in place now.

The promotion of fair trading in food.

The WTO is looking at this issue all the time. Australia and New Zealand are not getting a fair trading in food made from low THC industrial hemp plants and it is a breach of WTO laws that were made by all countries in the WTO. I have still not seen a valid case of why Australia and New Zealand have broken WTO laws to not allow this nutritional hemp food as a legal food.

Summary

Hemp low THC foods are an important part of a sustainable new industry of low THC industrial industry products in Australia and New Zealand. Every other WTO country now growing low THC industrial hemp has hemp food as the main contributor to making this an important agricultural industry, an asset to their country. Australia and New Zealand need to join the world in making this nutritional low THC hemp food a legal food to eat so that the true value of all hemp products will be seen.

Articles (attached) from Canada, France and China show their governments support to help build on the efforts of the people involved in industrial hemp industry. We need the Australian Government joining in backing this sustainable industry. At a time when food is such a critical issue to lots of countries, it would seem criminal to not allow a nutritional food source that has potential to make a big difference in a country that has the broad acre land to really help local farmers and the needs of a growing world population. I believe that the nutritional

benefits of hemp foods would be better placed in the Department of Health (like Canada) to oversee this industry. There would be less a chance of conflict of interest in this industry with Health Departments presiding over this industry. We are asking for the same rights, legal low THC hemp foods, as all WTO countries have but we in Australia and New Zealand do not. Where is the 'evidence' to not allow low THC hemp foods?

09D0343
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2 August 2010

Attention : Brian Gage

**REPORT ON THE ANALYSIS OF TWO SAMPLES OF HEMP SEEDS
RECEIVED ON 28TH APRIL 2010.**

Sample History:

Two samples of hemp seeds were received for analysis, one sample for Fatty Acid Profile(FAP) and crude oil determination the other sample for crude oil only.

Test Methods:

Fatty Acid Profile (In house method FS 74)
Oil (British std for oilseeds - In house method FS 89)

Results of Examination:

Lab No		09D034300 1
Client ID		3L-09-43
Name	Notation	%ar relative
Palmitic	C16.0	7.0
Palmitoleic	C16.1 c-9	0.1
Stearic	C18.0	2.8
Oleic	C18.1 c-9	15.0
Vaccenic	C18.1 c-11	1.0
Linoleic	C18.2 c-9,12	57.1
alpha Linolenic	C18.3 c-6,9,12 or C18:3 c9,c12,c15	14.8
gamma-Linolenic	C18.3 c-6,9,12 or C18:3 c9,c12,c15	0.9
Stearidonic	C18.4 c-6,9,12,15	0.1
Gondoic	C20.1 c-11	0.5
Arachidonic	C20.4 c5,8,11,14	0.4
Eicosatrienoic	C20.3 c-11,14,17	0.2
	total saturated	9.8
	total unsaturated	90.2
	Omega 3	15.8
	omega 6	57.5

ChemCentre ID	Client ID	Oil
Method Code		FS 89
Limit of Reporting		0.1
		%ar
09D0343/001	3L-09-43	28.3
09D0343/002	.23-09	28.9

This report relates specifically to the samples as received.



N E ROTTNIE

CHIEF

FOOD AND BIOLOGICAL CHEMISTRY