Seamons, Colleen

ACKNOWLEDGED

From: Reception
Sent: Wednesday, 27 April 2011 8:35 AM
To: submissions
Subject: FW: Submisson on hemp [Sec: UNCLASSIFIED]
Attachments: Submission to Hemp inquiry (HC).doc

Classification: UNCLASSIFIED

SCANNED

From: Stuart & Heather Carter [mailto:tantanoola@bigpond.com]
Sent: Wednesday, 27 April 2011 8:38 AM
To: Reception
Subject: FW: Submisson on hemp

Dear Melanie
We tried sending again today, but without success.
We are taking up your offer, to forward it to the Submissions people.

Please find attached my submission to the FSANZ inquiry on **Low THC Industrial Hemp as a Food.**

Yours sincerely
Heather Carter

ENTERED IN SMS / CDS
...../...../.....

Submission

Food Standards Australia New Zealand

Application A1039,
Low THC Industrial Hemp as a Food.

5.2 Other risks
5.2.1 High THC Cannabis foods entering the food supply
5.2.2 Potential to mislead consumers

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

The people who want to consume hemp products do so for health reasons related to gluten intolerance, cardiovascular disease, cancer and for vegetarians or vegans, to boost their intake of protein. For other health conscious consumers, hemp seed provides a good source of essential fatty acids, amino acids, dietary fibre, calcium, iron, antioxidants and are low in saturated fat. The seeds also contain phosphorus, magnesium, zinc, copper and manganese. An education campaign would need to be undertaken, especially for young people, to point out the differences between hemp for health and marijuana. The media has a huge role to play in this process. Their alarmist and misinformed commentary is not helpful. The use of poppy seeds is widespread and not muddled with the use of opium or heroin, so surely we can easily learn to distinguish between the uses of hemp and marijuana.

"The energy of life is in the whole seed. Hempseed foods taste great and will insure (sic) we get enough essential amino acids and essential fatty acids, to build strong bodies and immune systems, and to maintain health and vitality."
Excerpted from **Hempseed Nutrition** by Lynn Osburn. Produced by Access Unlimited, P.O. Box 1900, Frazier Park, CA 93225. www.global**hemp**.com

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

No. Hemp food is advertised for its health giving properties: suitable for vegetarians, vegans, people with a gluten intolerance, people trying to reduce the fat they consume, people trying to maximise their recovery from cancer. In Sweden, when I was there in 2010, hemp products were available in Health Food shops and there was absolutely no labelling or advertising that suggested any psychoactive effects. The sales assistant expressed surprise that in Australia these products are not available.

About us

Reidarsson.com is a family owned company run by Torbjörn and Alice Reidarsson. Our goal is to let more people know about the amazing qualities of health food from hemp!

6.1 High THC Cannabis foods entering the food supply

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?

Hemp for food would be grown under current licensing controls and therefore the seed and oil from those plants would be the only hemp allowed to be used in food. Since the hemp grown for food is a low THC variety it follows that the food will also be low THC. It is grown and harvested quite differently to the high THC cannabis and since it is the flowers and leaves that are used as the drug and hemp for food is about the use of the seeds and oil it seems unlikely that licensed growers or processors/manufacturers would get confused. Setting maximum limits on the THC content would be sensible and perhaps appease the uninformed in the community but would probably prove to be unnecessary in the long run. I don't believe there are warnings on poppy seeds that they come from the poppies used to harvest opium and manufacture heroin.

6.2 Potential to mislead consumers

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 believe that the same regulations that govern whether a food can be called 'natural' or 'healthy' should apply to hemp as well.

8.2.2 Option 2 – Approval of low THC hemp foods

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

There is a market for highly nutritious food and people interested in good health would provide the base of that market. Other people, because of a disease or a chronic and/or hereditary condition, would also be an important part of that market. Manufacturers would widen the market for their product and provide a nutritionally superior product to boot. They would differentiate themselves in the market with the benefit showing in their bottom line. It wouldn't hurt their environmental credibility either. We have become too dependent on soy, wheat and corn to provide nutritional value in our foods and hemp provides a highly nutritious and sustainably grown crop as an alternative.

There are no public health and safety concerns associated with the use of food products containing derivatives of industrial hemp, provided there is compliance with the proposed maximum levels for THC in hempseed, oil derived from hempseed and other products derived from industrial hemp. (FSANZ FINAL ASSESSMENT REPORT 2002 Application A360 - Use of Industrial Hemp as a novel food)

Source: http://www.foodstandards.gov.au/foodstandards/

FSANZ has already approved hemp as a nutritious food product and I believe there are controls already in place that make it safe to use. Our normal packaging and advertising laws should be sufficient to stop people thinking that hemp in food will provide any psychoactive effects. It will be a win-win for manufacturers and the environment and as for the need for drug testing etc this will be completely unnecessary as the hemp for food and health will be the low THC variety only.

Thank-you for the opportunity to make a submission to your inquiry.

Submitted by:

Heather Carter
52 Lawson Rd
Macquarie Hills NSW 2285 tantanoola@bigpond.com

Seamons, Colleen

From: Reception
Sent: Wednesday, 27 April 2011 9:07 AM
To: submissions
Subject: FW: FSANZ submissiion - Application 1039: Low THC Hemp as a Food [Sec: UNCLASSIFIED]
Attachments: FSANZ, Submission to Applic A1039, Ind Hemp for food.doc

Classification: UNCLASSIFIED

From: Stuart & Heather Carter [mailto:tantanoola@bigpond.com]
Sent: Wednesday, 27 April 2011 9:10 AM
To: Reception
Subject: FSANZ submissiion - Application 1039: Low THC Hemp as a Food

Dear Melanie
Please find attached a submission to the Application 1039.
I appreciate you forwarding it on to the relevant people within FSANZ
A quick 'got it' reply would be reassuring.
Regards, Stuart Carter

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Mr Steve McCutcheon
CEO
Food Standards Australia New Zealand
PO Box 7186
CANBERRA BC ACT 2610
Tel (02) 6271 2222
submissions@foodstandards.gov.au.

25th April 2011

Dear Mr McCutcheon

Subject: Application A1039, Low THC Hemp as a Food.

Included in this posting, please find:

- submission to the FSANZ enquiry into the ethicacy of Low THC Hemp as a Food
- attachments

My responses to the Questions raised by FSANZ have been informed by people within various associations, businesses, government departments as well as published reports. I am indebted to these sources for the work they have done, enabling my job of writing this submission to be of a standard that I trust you will consider, adds credibility to the conclusions that will be contained in your recommendations to the COAG Ministers.

Sources:

- Ecofibre Industries: http://www.ecofibre.com.au/
- FSANZ: http://www.foodstandards.gov.au/foodstandards/
- Industrial Hemp Association of Victoria: http://www.hempvictoria.org/
- North American Industrial Hemp Council: : http://www.naihc.org/hemp_information/content/hemp.mj.html
- Institute of Natural Fibres and Medicinal Plants, *ul. Wojska Polskiego 71B, 60-630 Poznan, Poland*
  K.Heller, M. Strybe, ***Flax & Industrial hemp valuable plants for agriculture and industry,***
  http://www.crops2industry.eu/images/pdf/poznan/8a%20Heller%20Strybe%20flax.pdf
- Parliament of New South Wales, **Full Day Hansard Transcript (Legislative Assembly, 14 May 2008, Corrected Copy) HEMP INDUSTRY BILL 2008**
  http://www.parliament.nsw.gov.au/prod/parlment/hanstrans.nsf/V3ByKey/LA20080514
- Western Australia Department of Agriculture and Food, An information paper on industrial hemp (industrial cannabis), by Mark Holland
  http://www.agric.wa.gov.au/objtwr/imported_assets/aboutus/as/information_paper_2008.pdf

Thank you for this opportunity to contribute to the **FSANZ Application A1039, Low THC Hemp as a Food.**

Yours sincerely
Stuart Carter

Submission

Food Standards Australia New Zealand

Application A1039, Low THC Industrial Hemp as a Food.

Submission made by Stuart Carter

Low THC Hemp food products that are so widely available in other parts of the world, are prohibited items in Australia.

Background:

Industrial Hemp – the low THC variety that is the subject of this enquiry – is a misunderstood plant by a misinformed generation who have been kept in the dark as to the potential value and contribution it can make:

- to human wellbeing,
- to Australian soils,
- to Australia's economy and
- to future generations.

Some points for starters can help correct misconceptions about Hemp.

1. It can be grown and consumed legally in the United Kingdom and France plus other countries in Europe and Asia, and North America i.e Canada, in the United States, consumed but not grown;
2. There are many food products that are made from the seeds of the plant e.g. oils, flours, protein foods and more;
3. There are many construction products that are made from the fibres of this plant e.g. composite board sheets, insulation, concrete substitutes, plastics and more;
4. There are many clothing and Manchester products that are made from the fibres of this plant e.g. women's and men's clothing items, rolls of fabric, cordage and more;
5. Although it can't be grown in the USA all these products can be freely sold in the US;
6. Large manufacturers are using hemp plastics, for example, vehicle companies in car body panels;
7. Farmers in Australia are discouraged from growing industrial hemp because of the licensing requirements and associated rules and regulations and the limited processing opportunities dotted around the country;
8. The Australian economy, society and ecology is poorer because:
    - farmers who might be persuaded to grow industrial hemp would find it difficult to market the crop to a very limited processing sector,
    - manufacturers across a number of industries are not able to trade in the many products that would be of benefit to their bottom line,
    - the retail sector is not able to offer these products to their Australian customers, and the
    - local catchments are missing out on an annual 120 - 140 day crop that:
        - could for example be a substitute for trees, producing more fibre per hectare, and
        - lead to a reduction in chemical inputs due to the plant's internal resilience and rapid growth.

The case for Hemp as a (legal) Food

There is no need for any further evidence (than that already available), as to whether or not Hemp should be made available as a food. The case has already been made. FSANZ has already reached the conclusion that there is no reason to keep hemp as a food on the banned list.

There are no public health and safety concerns associated with the use of food products containing derivatives of industrial hemp, provided there is compliance with the proposed maximum levels for THC in hempseed, oil derived from hempseed and other products derived from industrial hemp.
(FSANZ FINAL ASSESSMENT REPORT 2002 Application A360 - Use of Industrial Hemp as a novel food)

Source: http://www.foodstandards.gov.au/foodstandards/

The case for Hemp to be treated fairly; for Hemp to be treated on its merits

Poppy seeds can be eaten whole or milled. It is the green poppy flower pod that is used to make the drug opium. The seeds for eating and the latex for drug making, come from the same plant – *Papaver somni ferum.* There is no confusion or misapprehension or perception that Australians will be confused or misguided in their use of the poppy plant and the seed displayed on the supermarket shelf, purchased for baking or decoration purposes.

Hemp seeds can be eaten whole or milled – just not in Australia.

Treating all *Cannabis sativa* plants as one would be like treating all termites as one. Only 3 or 4 of the scores of termite species do any economic damage to Australian buildings. The remainder are an essential part of recycling organic material for reuse. The CSIRO has recently acknowledged that without termites in their billions we would not be farming and grazing to anything like the extent we are today. Termites are to be treasured. In spite of their bad press, termites have an economic benefit beyond the perceived cost that could be greatly reduced by improving our understanding and adjusting our design parameters.

So it is with Cannabis. Only a few of the varieties have any THC for drug making purposes. The majority are low or no THC varieties. *Cannabis sativa sativa* is not the same as *Cannabis sativa indica.* To place it in the same 'box' not only demonstrates our ignorance, it places our farmers at an economic disadvantage, it robs our soils of a healthy rotation crop, it withholds from our diets the best balanced edible oils available. It also reduces our diversity at all levels of our society: agriculture, commerce, household. There is strength in diversity, and we will be left clutching at straws if we don't bring Hemp seed into the mainstream.

The case for consistency in how Hemp as a Food can be 'consumed'

An Australian living in Australia **is not** permitted to consume hemp via the mouth – i.e. ingested. It is legal, however, to consume hemp via the skin – i.e. absorbed. The skin being the largest organ of the human body, it seems odd that Australians are permitted, legally, to purchase and apply hemp products to their bodies externally that is then taken up via the cells of the body to enter the blood stream and act as nourishment for the 'whole' while the law forbids the uptake of hemps nutritional qualities via oral means.

At this point there seems to be a huge disconnect between what is perceived as taking a dangerous substance and the reality of how the human biological system functions. It's as if the skin was an external barrier like the hull on a ship, shedding the water so as to allow the internal mechanisms to remain dry, intact and operational.

On the contrary, it is stating the obvious, the skin is an integral and essential part of the body. Without its capacity to act as a tempering medium between internal operations and external forces we would wither and die. The skin is not designed to act as a barrier, to remain dry and parched. In its own way the skin inhales and exhales. When Hemp as a skin food is applied, it is absorbed into the body as it would be intended.

There is no suggestion that this is against the law or that it will do harm. Quite the opposite, it is legal and its purpose is to improve and sustain, cleanse and nourish, replenish and rejuvenate.

The case for Australians to be able to eat Hemp as a Food at home

An Australian travelling or living abroad *is* permitted to consume hemp as a food. And yet that same Australian on returning 'home' is treated as a criminal if he or she were to turn a legally grown Hemp seed into a food product for human consumption. As a dog biscuit, yes: As an Anzac biscuit, no.

What is so peculiar, so precious, about the Australian situation that makes us so uniquely different from the UK, for example, that we can't differentiate between what might be a High THC substance and a Low THC food stuff?

We look to our regulatory and enforcement agencies and our elected representatives, to ensure that we can access what is for the common good. That people living in every other country can distinguish between what is and what isn't a protein rich Hemp food or healthy Hempseed oil, while we are told Australians cannot, speaks volumes about the confidence, or lack thereof, that these agencies and members of parliament, have in the Australian public.

The case **for** correcting this stark contradiction, is contained in far more documents, than the case **against**. And yet the 'no' case has prevailed until now.

In the hypothetical scenario of this issue ever ending up before the Federal court - with prosecutors and defendants arguing their respective cases - there would so many volumes of hard empirical evidence **for** the

legalisation of Low THC Hemp as a Food, and so much anecdotal and so much unsubstantiated mythical evidence **against** the legalisation, that the court, which relies heavily on precedence when determining its judgements, would from what FSANZ alone has established, find that Low THC Hemp as a Food, should be made available to Australians. They would probably note that if they could make the ruling retrospective they would. It is conceivable that they would recommend that the parties settle their difference without a hearing, noting that it would be a waste of the courts time and resources to take the matter before the full bench.

With specific reference to the FSANZ discussion paper '**questions for submitters'**, I wish to contribute a short statement in each instance:

5.2 Other risks
5.2.1 High THC Cannabis foods entering the food supply
5.2.2 Potential to mislead consumers

Questions for submitters

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

Hemp seeds nutritional qualities make it attractive to discerning consumers who would be informed and knowledgeable about Hemp's health benefits in a balanced diet. To use Hemp for the psychoactive effect would be anathema to them. If there is any misunderstanding it has only been exacerbated by the failure of regulatory agencies to dispel myths, and the persistence of legislators to foster confusion in the consumers mind that sinister gremlins are contained within the seeds of this amazing plant. Hemp was held in high esteem by societies around the world, and so valued by our ancestors that it was at the centre of trade for centuries. We are indeed not debating the value and quality of the plant. It has done nothing other than what plants do. It is the human response, as evidenced by the question: what do "consumers believe" about low THC hemp foods? It behoves those of us who know the facts (many of which have been documented by FSANZ) to set the record straight, dispel the myths, correct the false accusations that Hemp may do you no good, and place on the public record, that Hemp as a food, is one of the most complete foods there is. At the same time it would be most appropriate to acknowledge the work of those genuine hard working Australian hemp pioneers, who in the face of persistent opposition, have laboured to reinstate Hemp as a plant that can contribute enormously to our physical health and general well-being.

" We are one of the few countries in the world that continues to insist that we should outlaw a crop simply because one of its botanical cousins can be used inappropriately." (**Hemp and Marijuana: Myths & Realities** by David P. West, Ph.D.for the North American Industrial Hemp Council.)

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

No. Hemp as a food is sold throughout Europe including the United Kingdom and North America including the United States. From my limited knowledge of the marketing of these products there is little or no misleading advertising. If FSANZ is concerned about this issue, then it should look no further than the dubious selling techniques of companies involved in highly processed ready-made meals and 'fast food', foods deep fried in palm oil and cola drinks targetting young people, as well as alcoholic drinks aimed at young women in particular. There are no warnings that these substances might be harmful to one's health, especially women during pregnancy. The consumption of many of these products is detrimental to the health of many Australians, yet there is no limit to where or how frequently they can be advertised - including sporting and other active lifestyle venues. In a different context they would be discouraged. The association of the two is a dubious practice. An increasing number of health professionals would like to break the nexus that currently exists. The conflicting messages, to an unquestioning sector of our society, are unhelpful to their work in preventative health care.

5.2.3 Drug testing issues

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?

Cannabis sativa is well known as the source of the pharmacologically-active substance,delta9-tetrahydrocannabinol (THC). Hemp or ' industrial' hemp, while a Cannabis species, is a low THC variety and is not considered to have any psychoactive properties. THC is produced in specialised glands found only on the leaf surface of the Cannabis plant. The main food source, the seed, while containing no THC, is wrapped in

specialised leaves called the calyx that do produce THC and cause some contamination of the outside of the seed coat.(FSANZ 2002)

The conclusion of the Final Assessment Report, found that:

Foods containing derivatives of industrial hemp do not produce any psychotropic effects, and cannot be used as a source of THC.

(FSANZ FINAL ASSESSMENT REPORT 2002 Application A360 - Use of Industrial Hemp as a novel food)

Source: http://www.foodstandards.gov.au/foodstandards/

There is no possibility of returning a positive test for a THC drug test, since Hemp contains no or insufficient levels of THC to be of concern. (For a detailed report on this point, please refer to the attachment at the end of this submission, titled: **Hemp and Marijuana: Myths & Realities** by David P. West, Ph.D.for the North American Industrial Hemp Council.)

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?
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?

This is a combined response to Questions 4 & 5.

No. I believe testing is unnecessary. Carrying out checks on people who legitimately produce and purchase Hemp products should be out of the question. It has already been acknowledged that Hemp contains negligible amounts of THC; we already know the biological process of growing the plant and the mechanical process of harvesting the seed, is all to do with low to no THC content, so to consider testing is a futile exercise that serves no purpose and wastes public funds. For it is, the flower and leaf – not the seed – that is used for the high THC content drug products, from Marijuana not from Hemp. Therefore, costs of testing for THC in humans that could arise from an approval of Hemp foods would most probably be carried out on the basis of a levy on industry. This is an impact / imposition that benefits no one other than private laboratories. It adds a cost that will be passed on to consumers. It does not apply to poppy seeds, so it need not apply to hemp.

6.1 High THC Cannabis foods entering the food supply

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 stated in the above response to Questions 4 & 5, Hemp food is made from Hemp seed not from the flower and leaf.

There is no risk of high THC *Cannabis* entering the food supply chain. The variety from which the seed will be harvested is of the non-drug type, *Cannabis sativa sativa.* It is an oxymoron to imply psychoactive effects from something that has no psychoactive content.

6.2 Potential to mislead consumers

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?

From my limited knowledge of Australian advertising standards there would appear to be little room for false or misleading claims about Hemp as a food. The best interests of the industry will be served by highlighting the nutritional benefits at the point of sale. Any association with psychoactive properties relating to the consumption of hemp as a food, does not exist since it is the seed and oil from the seed, that are being consumed. There should be no special conditions regarding labelling.

8.2.1 Option 1 – Maintain the prohibition on all Cannabis species

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.

By denying farmers the opportunity to grow Hemp for seed as well as fibre, is to place a tourniquet around the industry's profit potential. It would be like saying to cereal growers, like wheat, oats, barley, sorghum, corn, etc., it's only possible to grow these crops for the products that can be produced from the straw, leaving the head of grain for the birds. It would be unthinkable and outside the realm of common sense. The overall viability of Hemp is being curtailed while ever seed production for Hemp as a food is off limits.

8.2.2 Option 2 – Approval of low THC hemp foods

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

Hemp seed production would add to the suite of foods available to manufacturers, who in recent times have added hitherto unknown foods to the good foods list. Examples include Quinoa, Amaranth, Chia, Buckwheat and so on. Recommending Hemp for food, as FSANZ has done per its 2002 enquiry and stating in the opening brief of the discussion paper, that *"Hemp is currently used in other countries, including in Europe, Canada and the United States, in a range of foods including health bars, salad oils, non-soy tofu, non-dairy cheeses, and as an additive to baked goods, as well as being used as the whole seed, raw or roasted"*, sends a clear message of approval to food manufacturers that Hemp as a food will be a sort after product when made available to Australian consumers. This is a marvellous endorsement of the value of Hemp and a long overdue tick of approval for an age old plant that sustained humans for thousands of years. At a time when the world's food bank is being drawn down, this presents Australian growers and marketers with opportunities to value add at home before cashing in on what could be lucrative overseas markets. Our clean and green image would only be enhanced if Hemp as a food was an integral part of our overall food base.

10. Are there likely to be any additional costs for food manufacturers wishing to supply hemp foods? Please provide quantitative data if available.

When a major part of a plants productive capacity is withheld, then economies of scale cannot be realized. It is my understanding that existing food processing technology is up to the task of processing Hemp as a food. Therefore no additional costs would be incurred.

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 current licensing arrangements for growing industrial hemp plants should significantly reduce the need for enforcement of the proposed maximum levels for THC in domestically produced industrial hemp-based foods. Imported foods will be monitored under the Imported Food Program administered by the Australian Quarantine and Inspection Service (AQIS). (FSANZ FINAL ASSESSMENT REPORT 2002 Application A360 - Use of Industrial Hemp as a novel food)

Source: http://www.foodstandards.gov.au/foodstandards/

Again, Hemp seed does not contain THC in quantities harmful to human health. In many cases the seed would be hulled and often pressed to extract the oils. It would be unnecessary to test for THC levels that don't exist. For the first three years it might be deemed wise to carry out re-assurance tests. If this was the case, then a random sample test at the seed producer stage of the process would be all that is required. From this there would be certainty that all downstream steps in the production process would, by definition, be free to go about their business having satisfied the regulatory requirements.

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

It would be instructive to take into account the legislative rules applying in other countries. Australians can best be served by bringing our laws into line with all other Western countries – including the United States, which allows the importation and consumption of Hemp as a food. It would no doubt be a relief to Customs if they were relieved of the job to stop Australians bringing Hemp as a food into Australia. It is my understanding that when the laws around industrial hemp for fibre were changed, it required minimal effort on the part of our legislators. It is instructive to read Hansard transcripts from the NSW Parliament, when in 2008 the issue of legalising industrial hemp for fibre production was debated in the House. (Full Day Hansard Transcript (Legislative Assembly, 14 May 2008, Corrected Copy) **HEMP INDUSTRY BILL 2008.**
(Bill agreed to in principle. Passing of the Bill.
Bill declared passed and transmitted to the Legislative Council with a message seeking its concurrence in the bill)
All speakers to the Bill, from all political persuasions, spoke in favour of the Bill and many of them mentioned the value of Hemp as a food. I recommend this document to the committee reviewing this *Application A1039: Low THC Hemp as a Food.*

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 regulatory impact assessment indicates that, for the preferred regulatory option, namely, remove the prohibition on the use of Cannabis spp. in food and establish maximum levels for THC in foods, the benefits of

the proposed amendment outweigh the costs.. (FSANZ FINAL ASSESSMENT REPORT 2002 Application A360 - Use of Industrial Hemp as a novel food)

Source: http://www.foodstandards.gov.au/foodstandards/

No more controls should apply to Hemp destined for use in food, than apply to any other seed crop destined to be a foodstuff for human use. Hemp as a food should be afforded all the benefits enjoyed by other plant derived foods. For the most part, hulled Hemp seed will be milled into products that take it outside the realm of being germinated into anything that might resemble a next generation Hemp plant. The fewer imposts on the fledgling Hemp for food industry the better it will be able to flourish and compete on the open market.

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

It is important to limit the regulatory process for this emerging industry. Licensing growers is a sufficient deterrent to any notions that growing Industrial Hemp might have some hidden agenda other than the production of Hemp as a food or Hemp for fibre or Hemp for mulch. Therefore it is not necessary to require food manufacturers to be licensed, any more than it is not required for food manufacturers who package and sell poppy seeds - and all the bakery products with poppy seeds as an ingredient - need to be licensed.

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

Approval of Hemp foods is a natural extension of the approval for growing Hemp for fibre. Since it is one and the same plant. The *Hemp Industry Act 2008* (the Act), allows the cultivation and supply of low THC hemp fibre and seed production in NSW, under controlled conditions. (Source: http://www.dpi.nsw.gov.au/agriculture/field/field-crops/fibres/hemp/commercial-production)

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.

In my discussions with rural producers, industrial hemp processors and potential consumers I have encountered no risks other than those associated with any start up risk that might be encountered by new entrants to a business in its infancy. Everyone that I have spoken with is applying due diligence principles. Synergies are at the forefront of most stakeholders thinking, with win-win-win and WIN outcomes for every step in the chain of production – farmer, producer, end-user and in this particular case the natural environment. It goes without saying for anyone with eyes to see and ears to hear that the association between humans and hemp has in the case of the low THC varieties been one of mutual benefit for the society, the ecology and the economy. Hemp has truly triple-bottom-line credentials that no progressive state or federal legislature should stand in the way of.

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

The costs and therefore risks that are perceived to exist with Hemp as a food, pale into insignificance when measured against the benefits, that have already been identified by FSANZ:

"Hempseeds are rich in the essential fatty acids, omega-3 and omega-6, which are required for vital body functions, including the immune response, lipid hydrolysis, blood clotting, vascular dilation and cardiac function. These and other polyunsaturated fatty acids also play a vital role in maintaining cell membrane structure." (Source: http://www.foodstandards.gov.au/scienceandeducation/factsheets/factsheets2011/industrialhempasafoo5102.cfm)

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

It is to be expected that FSANZ should be deeply concerned about the health and well-being of the Australian food user. Protecting the Australian population from those foods that do harm and damage our ability to survive and thrive are no doubt paramount in the thinking of FSANZ. With this in mind, and with the knowledge, that Hemp as a food, is good for us, individually and collectively, then the sooner FSANZ can facilitate the acceptance of Hemp as a food, the better off we will all be. To deny the Australian people living in Australia, what Australians can readily purchase and benefit from when visiting or residing in another country, should be an anomaly that FSANZ for its part corrects – with minimal delays. The imposition of draconian 'conditions of consent' should be avoided wherever possible. Whatever approval conditions are applied, should not place Hemp, the plant, and Hemp growers, processors, and end-users at a disadvantage. To the contrary, Hemp *(Cannabis sativa sativa)* needs to be afforded the status it held:

- before it was slandered and defamed by people who had interests that could best be described as for private gain;

- before it became mischievously associated with Marijuana *(Cannabis sativa indica)*, then relegated and exiled into the same camp as its cousin.

That status is high in the order of plants that can benefit and contribute positively, to the health of our soils, our rural communities, our economy and our people.

In conclusion.

What is so peculiar, so precious, about the Australian situation that makes us so uniquely different from the UK, for example, that we can't take advantage of the attributes of this non-drug variety of a plant that was so widely grown, harvested and traded, in times past?

So much so that it was exchanged as a form of legitimate currency?

An opportunity for greater crop diversity within the agriculture sector and increased product choice within the retail sector is being denied. The reasoning behind this ban does not stack up, when measured against the social, ecological and economic benefits that would be derived from permitting the production and sale of **Hemp as a Food** in Australia.

As a plant variety, Hemp has been entrusted to us in common, for the common good. Let's not squander this opportunity to set the record straight.

Stuart Carter
April 2011

Attachment 1

What's the difference between hemp and marijuana?

Source: http://host.madison.com/ct/article_fb7c0968-3122-11df-a8de-001cc4c03286.html

Marijuana and hemp are different varieties of the same species of plant, Cannabis sativa L. There are different varieties of Cannabis, just as Chihuahuas and wolves are different breeds of Canis lupus. They are scientifically different and cultivated in different ways.

Marijuana is the flowering tops and leaves of psychoactive varieties of Cannabis that are grown for their high THC content.

It is used legally in some states, excluding Wisconsin, for medical reasons, and is used for recreational purposes as an illegal drug.

Unlike hemp, marijuana has a high THC (delta-9 tetrahydrocannabinol) content and a low CBD (cannabidiol) content. CBD blocks the psychoactive effect of THC in the nervous system. That means in all plants in the Cannabis family, there is a chemical that will induce a psychoactive effect and another that will block it. The illegal drug is cultivated to have a THC content of anywhere from 3 percent to 22 percent. The ratio of CBD to THC is less than one.

Hemp, or industrial hemp, is a cultivated, low-THC variety of Cannabis. It is grown for its seeds, oil and fiber. Industrial hemp has a low THC content compared to its CBD content. THC is typically less than 1 percent. Certified varieties in Canada and Europe are bred with the THC level purposefully decreased to less than .3 percent, the same THC level under recommendation if hemp farming is legalized in Wisconsin.

Ditch weed is hemp found growing in the wild, usually near places where it was once cultivated. It has a low THC level.

Sources: ***www.votehemp.com*** *and "Hemp and Marijuana: Myths and Realities" By David West, Ph.D, for the North American Industrial Hemp Council*

Attachment 2

North American Industrial Hemp Council

Q & A

Source: http://naihc.org/hemp_information/content/hempCharacter.html

Q#18.

Distinguishing Hemp from Its Cousin?

On one of your pages, you state: "While industrial hemp and marijuana may look somewhat alike to an untrained eye, an easily trained eye can distinguish the difference." I work for the sheriff's department in San Bernardino County in California and would like to know the difference - physically, microscopically and THC and other cannabinol concentrations.

To answer or comment:

A#1. The difference in appearance and growing methods is akin to the difference between growing corn and roses. Industrial hemp and feral ditchweed are grown closely together (rows are as close as 4 inches apart), it is grown in large multi-acre plots, it grows thin and tall, as tall as 20 feet high in many cases, has few branches or leaves below the tops, and is grown 108-120 days.

Contrast that with medicinal cannabis: grown 6 feet apart, it is a shorter fatter bush with many branches, smaller plots with fewer plants, and is grown for 60-90 days. When ready to harvest, the corn vs. roses analogy is even more striking. I have pictures of medicinal cannabis grown legally in Europe, where it is next to an orchard and vineyard, and it is clearly very different from the industrial hemp pictures from Canada.

There are differences in leaf structure that are apparent even after harvest, as most medicinal cannabis plants are either broad leafed with a 5 or 7 leaf pattern (cannabis Indica) or a tight bud or nugget with orange "hairs" (from an Afghani strain, preferable to growers because it is ready to harvest quickest, and their customers prefer it). The cannabis Sativa that is typically industrial hemp matures the slowest, and Sativa is not preferred by most customers any more.

THC content in feral hemp is probably around 0-2 percent. Industrial hemp in Canada is 0.3 percent or less, and better commercial varieties of medicinal cannabis are up to 25 percent. Don't buy the argument that 1 percent THC in hemp is enough to get high, because industrial hemp also has high CBD (cannabidiol, a cannabinoid in hemp) that is essentially a THC antagonist. More CBD means the THC is less effective, and hemp is highest in CBD and medicinal is lowest. So even if there is 1 percent THC in hemp, the CBD makes it useless to smoke. As for extracting the THC from hemp: why bother? If you can buy pot (even in *your* jail) for as low as $100/oz., why try and extract it at great cost and hassle? Just go down to the local park and buy real pot and save the inconvenience. It's much like saying only people over 21 can buy potatoes, since kids might make vodka out of it!

And remember, industrial hemp pollens will make the sinsemilla (seedless, highest potency, requires an absence of cannabis pollen) downwind for many miles less potent.

Officer, please remember that you are among the finest, best trained police in the world. If every other police force in the industrialized world can tell the difference, I'm sure that when the time is appropriate POST or DEA or USDA or California AG or someone to whom it is important will provide the necessary information to show you the difference between the two.

Attachment 3

Extracts from
Hemp and Marijuana: Myths & Realities, by David P. West, Ph.D.
for the North American Industrial Hemp Council

Source: http://www.naihc.org/hemp_information/content/hemp.mj.html

About the Author: Dr. West holds a Ph.D. in Plant Breeding from the University of Minnesota and has spent 18 years as a commercial corn breeder. Since 1993 he has served as an advisor to the emerging hemp industry regarding industrial hemp germplasm. His work, "Fiber Wars: the Extinction of Kentucky Hemp" (1994), a pioneering discussion of the functional difference between hemp and marijuana, and his other writings on hemp and agriculture are available online (CLICK HERE).
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The complete text of this report is available on the NAIHC website.
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Hemp and Marijuana

Myths & Realities

Abstract

Surely no member of the vegetable kingdom has ever been more misunderstood than hemp. For too many years, emotion-not reason-has guided our policy toward this crop. And nowhere have emotions run hotter than in the debate over the distinction between industrial hemp and marijuana. This paper is intended to inform that debate by offering scientific evidence, so that farmers, policymakers, manufacturers, and the general public can distinguish between myth and reality.

Botanically, the genus *Cannabis* is composed of several variants. Although there has been a long-standing debate among taxonomists about how to classify these variants into species, applied plant breeders generally embrace a biochemical method to classify variants along utilitarian lines. *Cannabis* is the only plant genus that contains the unique class of molecular compounds called cannabinoids. Many cannabinoids have been identified, but two preponderate: THC, which is the psychoactive ingredient of *Cannabis,* and CBD, which is an antipsychoactive ingredient. One type of *Cannabis* is high in the psychoactive cannabinoid, THC, and low in the antipsychoactive cannabinoid, CBD. This type is popularly known as marijuana. Another type is high in CBD and low in THC. Variants of this type are called industrial hemp.

In the United States, the debate about the relationship between hemp and marijuana has been diminished by the dissemination of many statements that have little scientific support. This report examines in detail ten of the most pervasive and pernicious of these myths.

Myth: United States law has always treated hemp and marijuana the same.
Reality: The history of federal drug laws clearly shows that at one time the U.S. government understood and accepted the distinction between hemp and marijuana.

Myth: Smoking industrial hemp gets a person high.
Reality: The THC levels in industrial hemp are so low that no one could get high from smoking it. Moreover, hemp contains a relatively high percentage of another cannabinoid, CBD, that actually blocks the marijuana high. Hemp, it turns out, is not only not marijuana; it could be called "antimarijuana."

Myth: Even though THC levels are low in hemp, the THC can be extracted and concentrated to produce a powerful drug.
Reality: Extracting THC from industrial hemp and further refining it to eliminate the preponderance of CBD would require such an expensive, hazardous, and time-consuming process that it is extremely unlikely anyone would ever attempt it, rather than simply obtaining high-THC marijuana instead.

Myth: Hemp fields would be used to hide marijuana plants.
Reality: Hemp is grown quite differently from marijuana. Moreover, it is harvested at a different time than marijuana. Finally, cross-pollination between hemp plants and marijuana plants would significantly reduce the potency of the marijuana plant.

Myth: Legalizing hemp while continuing the prohibition on marijuana would burden local police forces.
Reality: In countries where hemp is grown as an agricultural crop, the police have experienced no such burdens.

Myth: Feral hemp must be eradicated because it can be sold as marijuana.
Reality: Feral hemp, or ditchweed, is a remnant of the hemp once grown on more than 400,000 acres by U.S. farmers. It contains extremely low levels of THC, as low as .05 percent. It has no drug value, but does offer important environmental benefits as a nesting habitat for birds. About 99 percent of the "marijuana" being eradicated by the federal government-at great public expense-is this harmless ditchweed. Might it be that the drug enforcement agencies want to convince us that ditchweed is hemp in order to protect their large eradication budgets?

Myth: Those who want to legalize hemp are actually seeking a backdoor way to legalize marijuana.
Reality: It is true that many of the first hemp stores were started by industrial-hemp advocates who were also in favor of legalizing marijuana. However, as the hemp industry has matured, it has come to be dominated by those who see hemp as the agricultural and industrial crop that it is, and see hemp legalization as a different issue than marijuana legalization. In any case, should we oppose a very good idea simply because some of those who support it also support other ideas with which we disagree?

Myth: Hemp oil is a source of THC.
Reality: Hemp oil is an increasingly popular product, used for an expanding variety of purposes. The washed hemp seed contains no THC at all. The tiny amounts of THC contained in industrial hemp are in the glands of the plant itself. Sometimes, in the manufacturing process, some THC- and CBD-containing resin sticks to the seed, resulting in traces of THC in the oil that is produced. The concentration of these cannabinoids in the oil is infinitesimal. No one can get high from using hemp oil.

Myth: Legalizing hemp would send the wrong message to children.
Reality: It is the current refusal of the drug enforcement agencies to distinguish between an agricultural crop and a drug crop that is sending the wrong message to children.

Myth: Hemp is not economically viable, and should therefore be outlawed.
Reality: The market for hemp products is growing rapidly. But even if it were not, when has a crop ever been outlawed simply because government agencies thought it would be unprofitable to grow?

Conclusion

Hemp is making a comeback around the world. Whether it will be a miracle crop, as some of its enthusiasts claim, or simply another important addition to world agriculture, is yet unknown. Much research and development remains to be done. Sadly, the drug enforcement agencies, by disseminating false information, have created a mythology about *Cannabis sativa* that ill serves the nation, its farmers, and its industry.

We are one of the few countries in the world that continues to insist that we should outlaw a crop simply because one of its botanical cousins can be used inappropriately. Thomas Jefferson, who experimented with different hemp varieties and invented a brake for separating out the fiber from hemp, once wrote that the greatest contribution a person could make to his country would be to introduce a new crop. If Jefferson could see the roadblocks amassed against hemp today, how would he judge us?

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David P. West, Ph.D.
Prescott, Wisconsin
February 27, 1998

China looks to hemp for poverty alleviation

Wednesday, 15th April 2009

http://www.gokunming.com/en/blog/item/839/china_looks_to_hemp_for_poverty_alleviation

After years of sometimes confused policy in which industrial hemp was lumped together with its psychoactive cousin marijuana, the Chinese government is now actively promoting hemp cultivation as a tool for lifting rural Chinese out of poverty. China will build multiple hemp cultivation bases in Yunnan, Heilongjiang, Gansu and Anhui provinces as well as the autonomous regions of Xinjiang and Inner Mongolia by 2020, a project that is expected to bring three million people out of poverty, according to a Shanghai Daily report citing an official from the People's Liberation Army's General Logistics Department. Production at one of the first facilities involved in this plan went online yesterday in Menghai County in Xishuangbanna Dai Autonomous Prefecture in southern Yunnan. The hemp fiber processing factory, owned by China Hemp Industrial Holding Co Ltd, has an annual capacity of 2,000 tonnes.

In addition to being used to produce fibers for rope and clothing, hemp can also be used to make paper which is much less damaging to the environment than paper made from trees. Aside from causing deforestation, tree paper is bleached with toxic chlorine bleach. Hemp paper can be bleached with less environmentally harmful hydrogen peroxide.

Industrial hemp can also be used to produce fuel, biodegradable plastics, construction materials and health foods.

The government in Xishuangbanna now provides farmers with free hemp seeds plus technical training. According to the prefecture's party chief Jiang Pusheng, there are nearly 10,000 farmers growing hemp in the area, farmers who through hemp cultivation stand to double their annual income from 2,000 yuan (US$293) to 4,000 yuan.