



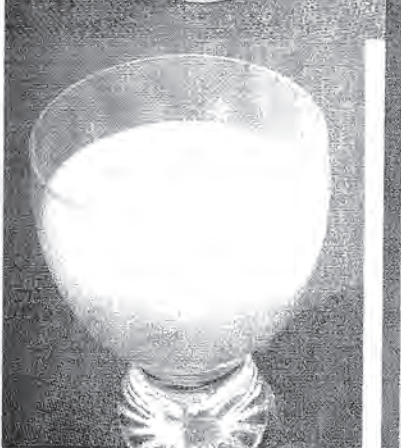
**Industrial**  
Hemp Association  
of Queensland Inc.  
[www.ihAQ.com.au](http://www.ihAQ.com.au)

FSANZ Application A1039

Hemp Foods Approval

IHAQ Submission

April 2011



The Industrial Hemp association of Queensland is an incorporated industry body representing retailers, wholesalers, processors, growers and researchers involved in industrial hemp in Queensland. We see the introduction of hemp foods as a vital step in the development of a broadly based sustainable hemp industry in this state.

The climate in Queensland allows for the production of hemp seed for food to be done over a long period and provide fresh seed for processing in regional areas providing much needed employment and economic recovery for these areas.

We also believe that having hemp foods available for consumers in healthy nutritious forms will improve the health of old and young Australians alike.

### Questions

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

No. Where hemp foods are consumed in the western world, they seem to be more popular with health conscious people and sports people who are seeking the nutritional benefits of hemp food and there is no evidence that anybody believes that they are psychoactive.

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. All the labelling that our members have seen in market research or visits to other countries to study hemp production indicates that no such misleading statements are made. We are of the strong opinion that this type of statement linked to a product that is aimed at the health food market would be very detrimental to business.

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?

No. Modern Hemp foods have been consumed in a number of countries for 10 years where drug testing is routinely carried out on sports people and in the workplace and on the roads. No instances of tests exceeding the limit have been attributed to hemp foods.

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?

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?

No. If increased testing is advocated it would be purely political and have no other basis as no issues have been seen anywhere in the world with hemp foods and testing THC in humans.



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?

Yes, the current licensing and regulations on growing Industrial Hemp precludes the production of high THC strains, and regulations are being formulated in Queensland for an approved variety scheme to more clearly ensure that only proven low THC varieties can be grown. Having primary processors licensed and regulating product quality under the HACCP scheme would ensure that the resulting food ingredients have a paper trail from the field to the supermarket. The seed itself contains no THC and provided QA procedures are followed on cleaning and preparation of grain, excellent control of THC contamination can be achieved.

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. The biggest risk of the public being misled on the properties of hemp food would be from misinformed journalists trying to trivialize or sensationalize hemp food, or uninformed Politicians trying to score political points.

The hemp food market potential is with people allergic to lactose, soy or gluten after another source of protein, health conscious people, vegans, vegetarians, and sports people like footballers and weight lifters bulking up on the hemp protein. These people would respond negatively to any suggestion of THC contamination or psychoactive properties.

Serious manufacturers would be advertising that there was **NO** THC content or psychoactive effects.

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.

Vertical integration in any industry, but particularly in a new and highly regulated industry is a major benefit as the financial risks can be spread over different markets.

The longer season with grain (food hemp crops) allows for more efficient use of resources, greater employment, more regular cash flow, and more scope for a higher level of R&D for the industry as a whole where levies are paid on production.

IHAQ estimates the Australian hemp food industry could be worth AUD\$50M on the domestic market within 7 to 10 years and that Australian hemp food producers could build an additional AUD\$50 - 80M export market in the same period in Asia where there is demand for non GMO, non gluten, and non lactose protein sources.

The farm gate value of hemp grain could be in the order of AUD\$30M, and provide very significant value adding opportunities for regional centres around the country.



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

Food manufacturers would gain a significant marketing advantage with the nutritional benefits of hemp seed available to be blended in to a range of food products to raise the EFA profile and increase protein levels with low levels of saturated fats and no allergens. It would also open up significant export opportunities for manufacturers.

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

Please provide quantitative data if available.

Additional costs may be incurred in THC monitoring of product and in licensing, however with significant volumes, and the use of certified private laboratories and rapid colorimetric tests, this should not be significant for commercial manufacturers.

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, as part of the HACCP program the THC content in food would become part of the QA system administered by the same body that enforces contaminants such as E. coli, salmonella, pesticide residues and heavy metals, all of which are more serious risks to human health and of much greater importance than traces of THC which are relatively harmless.

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

Queensland State legislation covering manufacture of hemp products under the drugs misuse act 1986 need to be changed to allow for manufacture of products to be consumed. See attached submission to Qld Government.

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?

Not in the growing stage as the current regulations restrict the THC content of growing plants and this is not the issue.

The issue is THC in the food from the seed. There is no THC contained in the actual hemp seed only on the bracts that enclose the seed on the plant. These bracts are mostly removed during the harvesting and cleaning of the grain.

Agri Fibre Industries have carried out a number of research trials to determine methods to detect traces of THC contamination on seed, and procedures to eliminate contamination from the few bracts left behind after cleaning and found brief washing of the grain with water removes the THC contamination.

The onus should be on the primary processor of the seed to remove all the bracts and ensure that the seed is not contaminated by THC from bracts still attached.

This should be monitored as part of the normal HACCP and QA system.

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

We would suggest that as part of the QA tracking system the primary processors (handling viable grain) has a permit or license and sells product that has been proven or

declared to have acceptable THC levels, as for other potential contaminants such as pesticides, bacteria, or heavy metals in other food crops.  
Once the Hemp seed is denatured (steamed or crushed or de-hulled) then there should be no need to license or regulate except for food safety and QA systems.

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?

Government agencies already charge significant licensing fees and greater numbers of farmers applying for licenses should improve their efficiency and reduce net cost to the licensing departments.

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.

The establishment of an industrial hemp industry in Canada had a significant impact on the cannabis drug production. In the areas where hemp is grown, serious drug production cannot continue as billions of low THC plants are spreading pollen throughout the district, forcing the marijuana growers to move out.

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

The hemp industry carries other benefits to the nation, the economy and environment in short and long term carbon sequestration - details are shown in IHAQ submission to the federal government on carbon farming appendix 1 of this submission.

The establishment of a hemp food industry would complement a fibre and seed industry in Australia and contribute to this carbon farming concept.

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

The association propose licensing and regulation of growing to harvest through existing system which has evolved to handle the local conditions.

The monitoring and administration of the production regulations should gradually be transferred to an industry body for self regulation after the media and political excitement wears off and hemp becomes just a regular crop with a low key licensing system. This body would be funded by production levies and fee for service such as the HACCP system.

The regulation of hemp seed processing after harvest should rely on formal QA systems such as HACCP for monitoring and auditing.

**IHAQ would strongly recommend uniform national regulations and conditions for food production, and that these conditions also apply to all imported product.**



**Contacts**

Industrial Hemp Association of Queensland Inc  
1873 Beechmont Rd  
Beechmont Qld 4211

**President**

John Hall  
Agronomy – Research & Development  
Seed & Fibre Production  
Food Industries  
Ph 0741556919    Mob: 0412218181  
Email: [jhall@cropman.com.au](mailto:jhall@cropman.com.au)

**Vice President**

Ian Murray  
Research & Development: Fibre Applications & Construction Industry  
Mob: 0437760348  
Email: [ianjohnmurray@gmail.com](mailto:ianjohnmurray@gmail.com)

**Secretary**

Matt Stapleton  
Industry Development & Communication  
Ph: 07 55333620    Mob: 0427633620  
Email: [ihag@winshop.com.au](mailto:ihag@winshop.com.au)

Attachments - Submission on Carbon Farming

Submission to amend drugs misuse act 1986.



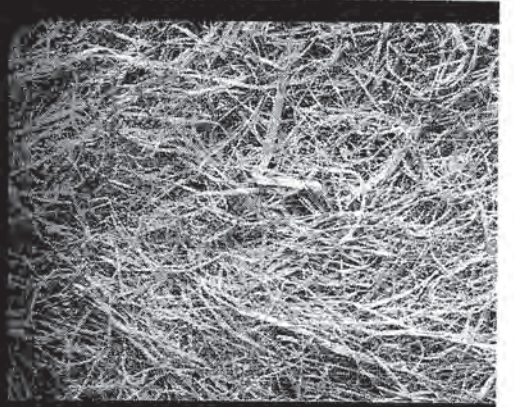
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**Business Case  
for**

**Carbon Soil  
Sequestration  
&  
Industrial Hemp  
Production**

April 2011





# **Business Case for:**

## **Carbon Soil Sequestration & Industrial Hemp Production**

### **1 Executive Summary**

#### **1.1 Recommendations**

Because of its unique properties for carbon bio-sequestration, as an export food crop in times of uncertainty to world food security, and as a contributor to eco-friendly building materials science and bio energy, it is clear that fast growing industrial hemp is a major asset in the fight against climate change.

In view of the Australian Government's, proposed Carbon Farming Initiative, the **Industrial Hemp Association of Queensland Inc (I.H.A.Q)**, recommends that Australia's industrial hemp primary producers are given every support and assistance to work through the process of being able to claim carbon credits from the scheme, to be operational in mid-2011.

As carbon credits under the AGCFI is based on following a methodology yet to be published, reciprocal support and assistance is required from industrial hemp producers to ensure that its production has a simple ,easy to use mechanism for farmers to claim carbon credits under the proposed scheme . .

#### **1.2 Rationale**

The UN Intergovernmental Panel on Climate Change 2007 Fourth Assessment Report makes the following recommendation for the short-medium term mitigation strategy for the agriculture industry:-

"Improved crop and grazing land management to increase soil carbon storage; restoration of cultivated peaty soils and degraded lands".

To reduce our carbon footprint, we have to rapidly increase the ability of the air, oceans, and land to absorb carbon.

Soils represent a short to long term carbon storage medium, and contain more carbon than all terrestrial vegetation and the atmosphere combined. Methods that significantly enhance carbon sequestration in soil include no till farming, residue mulching, cover cropping and crop rotation ,all of which are used in organic farming practice more than in conventional farming .



High carbon soil enhancements in the form of Biochar and Fulvic Acid are useful anthropogenic solutions to carbon sequestering mechanisms and are being investigated.

### **1.3 Agribusiness and Emissions Reduction**

The essential points for effective land use for agriculture in Australia are -

Australia has a very large land mass, and consequently has enormous potential for bio-sequestration, providing positive absorption of greenhouse gases, not just industrial CO<sub>2</sub> emissions reduction, therefore able to generate substantial carbon credits from this sector.

Australian agribusiness is therefore a key player, with a substantial part of the solution for global greenhouse gas reduction, by effective use of the continent's arable land - Australia may have a comparatively low carbon footprint due to low population, but it has the potential to contribute to reduction of the world's CO<sub>2</sub> with appropriate farming practices.

Australian agribusiness has the potential to provide a clean, green engine of economic growth, given the international situation of threatened world food security, rising food prices, land shortages for agriculture, due to over-population during the next few decades of transformation of the industrial landscape toward carbon neutrality.

### **1.4 Hemp Carbon Removal**

Industrial hemp is not only a low CO<sub>2</sub> crop that can be grown for food and non-food purposes, it also has the capacity to accelerate carbon sequestration in the soil, thus forming a natural carbon sink in land that could otherwise be responsible for increased emissions through soil imbalance. Once sown, it has unique properties for eradicating weeds and stabilising soil erosion - "Hemp offers some real environmental advantages, particularly with regard to the limited needs for herbicides and pesticides. Hemp is therefore pre-adapted to organic agriculture, and accordingly to the growing market for products associated with environmentally-friendly sustainable production." - Trends in New Crops and New Uses, Purdue University ISBN09-970756-5-5 Edited by Jules Janick and Anna Whipkey.

Hemp is a crop that has been used since ancient times for sails, ropes, nets, clothing, canvas, paper, food and building. In contemporary times hemp agricultural production can be readily geared to respond to any fast track establishment of low-carbon environmental technologies and industries. The low density and highly crystalline cellulose content of the hemp natural fibre leads to the excellent specific properties ideally suited to bio-fibre composite and bio-polymer technologies.

Although there is little in the way of comparative study of biomass growth rates amongst trees, plants and crops, hemp is one of the faster growing bio-masses, producing up to 25 tonnes of dry matter per hectare per year. It can be produced organically, and its products are biodegradable. Hemp leaf is 50% nitrogen, enabling it to enrich soil rather than deplete it. In ages past, hemp has been grown with crop rotation required only after a number of years.

Hemp is capable of enhanced carbon removal because of its properties such as the ability to

- Provide temporary cover between planting seasons
- Cover bare paddocks with vegetation .This protects soil from the sun and allows the soil to hold more water and be more attractive to carbon-capturing microbes.
- Restore degraded land, which slows carbon release while returning the land to agriculture or other use

It is perfectly suited to large scale agribusiness, providing not only income to farmers, but also photosynthesis of CO<sub>2</sub> from the earth's atmosphere. This produces organic compounds in the hemp crop, as well as in the soil in which the crop is grown.

### **1.5 International Market for Hemp**

The growth in world demand for food, fibre and value added products, services and technologies is of such a scale that primary industry production in Australia could double in the next 25 years. There is a growing international market for hemp building materials and insulation, hemp food products, fibre for hemp textiles and hemp plastic and automotive composites.

A conservative estimate of the total retail value of hemp products sold in the United States in 2007 is \$350 Million. - Industrial Hemp Profile – Ray Hansen, Iowa State University

### **1.6 Australian Agribusiness Opportunity**

There is a unique opportunity to be at the forefront of a growing agribusiness sector that can provide an abundance of CO<sub>2</sub> bio-sequestration in a short timeframe, earning farmers income, while addressing global CO<sub>2</sub> imbalances. It is essential that carbon credits under the Australian Carbon Farming Initiative is made readily accessible to hemp producers. <http://www.daff.gov.au/climatechange/cfi>

## **2 CO<sub>2</sub> Emissions Business Problem**

Global warming is mainly the result of CO<sub>2</sub> levels rising in the Earth's atmosphere. Both atmospheric CO<sub>2</sub> and climate change are accelerating. Climate scientists say we have years, not decades, to stabilise CO<sub>2</sub> and other greenhouse gases.



The current level, and rising rapidly, (measured March 2011) is 391.76 ppm. A sustainable level is 350 ppm according to a paper published by James Hansen of NASA Goddard Institute for Space Studies - (Hansen, J., Mki. Sato, P. Kharecha, D. Beerling, R. Berner, V. Masson-Delmotte, M. Pagani, M. Raymo, D.L. Royer, and J.C. Zachos, 2008: Target atmospheric CO<sub>2</sub>: Where should humanity aim? )

The business problem facing the local, national and global economic community is threefold. As the level of greenhouse gases climb increasingly rapidly towards the climate tipping point, every society has to face these problems.

- Mitigation of risks posed by rising greenhouse gas levels
- Adaptation to the changing circumstances of depleted soils, species loss, rising sea levels, acidification of oceans, degradation of arable lands.
- Transformation of business-as-usual to sustainability beginning in the short-term, and accelerating in the medium-term.

Of the total of humanity's carbon emissions, 47% goes into the atmosphere, 27% goes into the land, and 26% goes into the oceans.

Carbon emissions reduction is the answer for the air and ocean's; however agribusiness has the capacity to make a positive effect on the carbon absorption properties of the land by agricultural and horticultural practices.

The Garnaut Climate Change Review points out that the costs of mitigation in rural Australia are moderate if implemented efficiently, but high if implemented crudely. The agriculture, forestry and other land use sectors contributed around 20% of total annual emissions in Australia's most recent Kyoto accounts (Kyoto accounts DCCEE 2010a).

Once established, the Australian Government Carbon Farming Initiative is to provide ready access to carbon credits for carbon bio-sequestration (storing carbon in the soil) as well as carbon emissions reductions. The carbon accounting from this scheme will no doubt be improved, simplified and integrated with the Australian carbon pricing mechanism over the next few years.

## **2.1 Environmental Analysis**

The current business environment can no longer afford to be change resistant, with long lead times for new enterprises and changing practices. Innovation can no longer be stifled, bought out and shelved, disregarded and denied.

A price on carbon is changing the industrial and energy landscapes, and renewable energy is on the roadmap of all major economies in both the developed and developing worlds.

Past practices of the natural environment not considered, not understood, and destroyed as collateral damage with no value by a business culture can no longer be supported.

Planet earth has a large number of natural mechanisms for keeping the carbon/oxygen/nitrogen levels in the atmosphere, oceans and soils in balance. These mechanisms have to be understood, and supported by investment in new economic activities, for a chance to limit the effects of climate change to manageable levels.

Agribusiness standards and metrics are required for land use that will not only be sustainable, but also must provide a level of CO<sub>2</sub> absorption that can be measured, and used as the basis for earning carbon credits in the carbon marketplace. It is expected that a standard is to emerge from the Australian Government Carbon Farming initiative.

## **2.2 Agribusiness Opportunity**

There is a prime opportunity to directly address the removal of CO<sub>2</sub> from earth's atmosphere with facilitation of large-scale industrial hemp farming in land that has become eroded due to increased flooding, or that is depleted due to poor crop rotation and neglect of soil restoration.

The requirement for reduction in soil erosion, degradation, and plantings to absorb CO<sub>2</sub> from the atmosphere is urgent. Incentive has to be found for farmers nationwide to plant appropriate restorative crops.

### **Research, Production and Development**

Worldwide research and development has sparked an increase in new, innovative uses for hemp. Over 30 countries have continued to grow and process industrial hemp. World leaders of hemp production include China, Canada, Germany, England, France and Romania. From the United Nations Food and Agriculture Organization statistics, world hemp fibre production increased from 78,000 Mt in 1995 to 107,000 Mt in 2001. The UK price /tonne was AUD\$450 in the early years of the new millennium.

### **China**

China currently cultivates industrial hemp over an area of around 20 000 hectares. China's Hemp Research Centre in Beijing has an open ended target for 1.3 million hectares of the country's farmland to be dedicated industrial hemp cultivation, or around two million tonnes of hemp fibre.

Hemp has been grown in China for the past four thousand years, and up till last century when it was overtaken by cotton, it was the major fibre crop produced. Chinese science has focused on improving the production of textiles from hemp, in its huge textile and clothing export businesses.

China's first commercial-scale hemp processing mill, in Xishuangbana, Yunnan Province, has the capacity to process 50,000 tonnes of hemp fibres a year, mainly for use in cotton-hemp blends.



Zhang Jianchun, Director General of China's Hemp Research Centre, has been quoted as saying " hemp agriculture can play an important role in guaranteeing China's food security, protecting the environment and contributing to farmers' incomes" (because of its qualities of being able to grow in semi-arid regions, and in regions of poor soil quality). See "Fibre Stories - Hemp's future in Chinese fabrics" - <http://www.naturalfibres2009.org/en/stories/hemp.html>

### **Building Material**

Hemp has been subject to construction industry development and testing since the 1970s. Unlike tree fibre, where lignin is extracted from forestry products with chlorine, hemp building products do not create dioxins in removal of lignin.

Medium density fibreboard can be produced in the same machines that currently produce timber based products. As hemp fibres are much longer than fir or other timbers used in particle boards, with new production processes, hemp has the capacity to be used for structural building beams, (as the science of composites finds that the strength of a product is directly proportional to fibre length).

The hemp value stream of end use products for the construction industry includes bio-composite fibre technology for multi-purpose building boards, compressed panels, eco-concretes, living cements, natural renders, eco-blocks, insulation and low voc paints.

### **Food**

To introduce hemp food products and processing (cold pressing, etc), the infrastructure already exists, so there is a ready-made viable industry to allow further investment in the more costly processing methods for different products.

Hemp seed and oil products provide the following uses:

- Foodstuffs (protein, flour, bread, milk, butter, cheese, ice cream, vitamin supplements, health and natural foods etc), pet foods, livestock feed, cooking and edible oils.

In the 1990's, an agricultural research project for the development of hemp food products and processes was undertaken by the Canadian government. In March 1998 Health Canada re-legalized the cultivation of Industrial Hemp in Canada. Close to 180 farmers are currently taking advantage of the market for hemp foods with 19,500 H/A (2006) under cultivation with an estimated retail value of \$US40 Million for hemp seed products alone.

Whole hemp seed is composed of approximately 45% oil, 35% protein and 10% carbohydrates and fibre. According to Agriculture and Agri-Food Canada, hemp seed (and its byproducts) can be used to supplement diets poor in essential fatty acids (EFAs) to maintain good health. Hemp is one of only two plants that contain both EFAs (Omega 3 & Omega 6) as well as Omega 6 gamma linolenic acid (GLA). GLA has been found to have many properties ranging from anti-inflammatory to anti-depression.

### 3 Appendix - Supporting Documentation

1. Carbon Farming Initiative - <http://www.daff.gov.au/climatechange/cfi>
2. Climate Change: Science and Solutions for Australia – CSIRO  
<http://www.csiro.au/resources/Climate-Change-Book.html>
3. Industrial Hemp Information Paper – Qld Department Primary Industries  
[http://www.agric.wa.gov.au/objtwr/imported\\_assets/aboutus/as/information\\_paper\\_2008.pdf](http://www.agric.wa.gov.au/objtwr/imported_assets/aboutus/as/information_paper_2008.pdf)
4. Ross Garnaut Climate Change Review update Paper 4. - Transforming Rural Land Use <http://www.garnautreview.org.au/>
5. The US Hemp Market: An economic examination of the hemp industry.  
Richard A. Adams.
6. Baker College Center for Graduate Studies  
<http://www.druglibrary.org/schaffer/hemp/indust/ECNPAPER.html>
7. Industrial Hemp: Global Markets and Prices Valerie L. Vantreesse Revised June 1997
8. Hemp Oil Canada([www.hempoilcan.com](http://www.hempoilcan.com)) Andrea Hermann
9. Conde & Seber July 1994: Building Toward the Future with Hemp
10. Hempseed Foods – Richard Rose, The Hemp Food Association.

### 4 Contacts

Industrial Hemp Association of Queensland Inc  
1873 Beechmont Rd  
Beechmont Qld 4211

#### **President**

John Hall  
Agronomy – Research & Development  
Seed & Fibre Production  
Food Industries  
Mob: 0412218181  
Email: [jhall@cropman.com.au](mailto:jhall@cropman.com.au)

#### **Vice President**

Ian Murray  
Research & Development: Fibre Applications & Construction Industry  
Mob: 0437760348  
Email: [ianjohnmurray@gmail.com](mailto:ianjohnmurray@gmail.com)

#### **Secretary**

Matt Stapleton  
Industry Development & Communication  
Ph: 07 55333620 Mob: 0427633620  
Email: [ihq@winshop.com.au](mailto:ihq@winshop.com.au)



# Submission - Amendment of the Drugs Misuse Act 1986

January 2010

**Submission by: Industrial Hemp Association of Queensland**

Contacts: **Matt Stapleton, Secretary IHAQ Inc.**

[ihag@winshop.com.au](mailto:ihag@winshop.com.au) Ph 07 55 333 620 Mobile- 0427 633 620

**John Hall Director Industrial hemp Australia Ltd**

**Managing Director Agri Fibre Industries Pty Ltd**

135 St Johns Road, Bundaberg Qld 4670.

[jhall@cropman.com.au](mailto:jhall@cropman.com.au) Ph: 07 415561 Mobile 0412218181

**Submission prepared with the assistance of Clayton Utz**

**Barry Dunphy**

Level 28 Riparian Plaza 71 Eagle Street, Brisbane QLD 4000

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## 1.0 Introduction

The purpose of this Submission is to seek the support of the Queensland Government to pass appropriate legislative amendments to the Drugs Misuse Act 1986 (**DMA**) to remove any legal doubt as to whether industrial hempseed and industrial hempseed oil can be lawfully included in Queensland in food products that are intended for human consumption.

The key matters raised in this Submission are:-

- (a) That the provisions of the DMA which regulate the production and use of industrial cannabis currently are both ambiguous and uncertain. The key issue is whether industrial cannabis seed and the oil from such seed can be included in food products;
- (b) That this legal uncertainty under the DMA can be easily rectified by a relatively minor set of amendments to the DMA. We believe that these amendments can be made in a manner that will not undermine the maintenance of the clear prohibition on the illicit use of non-industrial cannabis (with a high THC component). In Section 6.0 of this Submission we have set out a possible option in this regard. In providing this legislative suggestion we are not in any way seeking to usurp the role of the Department or Parliamentary Counsel who we know will be fully responsible for the development of any final legislative amendments;
- (c) That at a policy level there is very strong support for the use of industrial cannabis seed and oil derived from such seed in food products. A number of jurisdictions already allow the use of industrial hempseed and industrial hempseed oil in food products. Details in this regard are set out in Section 3.0 of this Submission;
- (d) We also note that the Australian New Zealand Food Authority in their Final Assessment Report [Inquiry - S.17] Application A360 "Use of Industrial Hemp as a Novel Food" (**ANZFA Report**) made a number of relevant conclusions including that there were no public health and safety concerns with the use of food products of derivatives of industrial hemp provided that there was compliance with the proposed maximum levels for THC in oil derived from industrial hempseed and other products derived from industrial hemp. We will discuss the ANZFA Report in more detail in Section 4.0 of this report;
- (e) That the submissions made to ANZFA by the Queensland Industrial Hemp Advisory Committee supported ANZFA's recommendation to remove the total prohibition on the use of industrial hemp and to establish maximum levels for THC in food. A copy of the submission is included in Schedule 1 of this Submission;

- (f) That the clarification of the scope of the DMA in terms of its application to the use of industrial hempseed and industrial hempseed oil will provide a significant stimulus to the development of the industrial hemp industry in Queensland;
- (g) We anticipate that the expansion of the industrial hemp industry in Queensland to clearly include the production of food products using industrial hemp will have the potential to create employment opportunities in the North Burnett Region and generate significant income for the State. This expansion of the industrial hemp industry would also allow the North Burnett Region to replace income that has been lost due to the reduction in dairy and timber production and processing in that region;
- (h) The production of food products from industrial hemp in Queensland will provide a significant value-adding component to the value chain with the potential to have a significant economic impact on rural communities. This is consistent with the priorities in the North Burnett Regional Council's Economic Development Plan and the Queensland Government's Processed Food Sector Action Plan;
- (i) There are also significant environmental benefits of industrial hemp production, with industrial hemp being a sustainable crop and working well with current plantations in the North Burnett Region. One of the Queensland Government's ambitions, as stated in the Queensland Government's Toward Q2: Tomorrow's Queensland Report, is protecting the Queensland lifestyle and environment. We would submit that the expansion of the industrial hemp industry is consistent with this ambition.



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## 2.0 Key Issues

### 2.1 Provisions of the DMA

The DMA regulates the use of prohibited substances and dangerous drugs in Queensland. The DMA specifies a number of offences in relation to the production, supply and trafficking of dangerous drugs.<sup>1</sup> Cannabis and THC are specified as dangerous drugs.<sup>2</sup>

The DMA then provides an exception to these offences in relation to certain manufactured cannabis products. The term "manufactured product" is defined under s.4D of the DMA to mean:

"a product that-

- (a) is made from, or partly from, processed cannabis that-
  - (i) is harvested from industrial cannabis plants; and
  - (ii) has a concentration of THC in it of not more than 0.1%; and
- (b) is in a form that stops it from being smoked or administered or consumed."

The term "industrial cannabis plant" is then defined in s.46 of the DMA to mean a cannabis plant with a THC concentration in its leaves and flowering heads of no more than 1%.<sup>3</sup> The term "industrial cannabis seed" is also defined in s.46 of the DMA to mean cannabis seed harvested from an industrial cannabis plant or certified cannabis seed. The term "processed cannabis" is then defined to mean industrial cannabis plants that have been harvested, chemically, mechanically or artificially treated and have no leaf, flowers or seeds or seed from industrial cannabis plants grown by a holder of a growers licence under Part 5B of the DMA that is denatured either on the place stated in the relevant licence or by a person authorised under a regulation to denature the seed at another place.<sup>4</sup>

Therefore, the offence provisions under the DMA will not apply to a product that is made from processed cannabis harvested from industrial cannabis plants with a THC concentration of less than 0.1% and in a form that is not able to be "smoked or administered or consumed".

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<sup>1</sup> Section 5, 6, 8 and 9, Drugs Misuse Act 1986.

<sup>2</sup> Section 4, Drugs Misuse Act 1986, Schedule 2, Drugs Misuse Regulation 1987.

<sup>3</sup> Section 46, Drugs Misuse Act 1986.

<sup>4</sup> Section 46, Drugs Misuse Act 1986.

Part 5B of the DMA then provides for the commercial production of industrial hemp.

Section 44 of the DMA sets out the object of Part 5B of the DMA and states that:

"the object of this part is to facilitate-

- (a) the processing and marketing of, and trade in, industrial cannabis fibre and fibre products; and
- (b) the processing and marketing of, and trade in, industrial cannabis seed and seed products, other than for the purpose, directly or indirectly, of producing anything for administration to, or consumption or smoking by, a person."

The current Part 5B of the DMA was inserted in 2002, by the Drugs Misuse Amendment Act 2002 (**Amendment Act**) with a view to facilitating the development of an industrial hemp industry in Queensland. At the time when the amendments were made it was recognised that the industrial hemp industry potentially had a significant revenue base for Queensland and that the expansion of this industry would be beneficial for the State. The importance of the need to distinguish between the commercial use of industrial hemp and the illicit use of marijuana was clearly recognised at this point in time.

In 2002 it seems that the manufacture of food products from industrial hemp may not have been examined in detail and certainly the precise interpretation and extent of the exclusions provided under Part 5B of the DMA are unclear. This now raises a significant issue for the industrial hemp industry.

A detailed discussion of the key issues is set out below.

## **2.2 Interpretation of Part 5B**

It is quite evident from the Second Reading Speech of the Amendment Act that the intention of the Parliament was to allow the commercial use of industrial hemp. Reference was made in the Second Reading Speech to various uses of the hemp.<sup>5</sup> The primary focus was on industrial uses e.g. use in relation to the construction of motor vehicles. The then Attorney-General, the Honourable Rod Welford, stated that the amendment to the DMA would enable full commercial production of industrial cannabis fibre and seed.<sup>6</sup>

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<sup>5</sup> Legislative Assembly, 14 May 2002 pages 1558 to 1561, Legislative Assembly 8 August 2002 pages 2863 to 2888.

<sup>6</sup> Legislative Assembly 14 May 2002 page 1559.



There was also an indication in the Second Reading Speech to the Amendment Act that the primary objective of the Amendment Act was to enable further industrial uses of hemp to be explored to create financial benefit to the State and also to create a distinction between the industrial use of hemp and the illicit use of marijuana.<sup>7</sup>

Therefore, it is quite clear that the intention of Parliament in introducing the Amendment Act was to allow the industrial hemp industry to grow to its full capacity. This is also specified in the Explanatory Notes to the Amendment Act.<sup>8</sup>

There was also a clear intention by the Parliament to maintain a distinction between the permitted commercial production of industrial hemp and the prohibited illicit use of marijuana.

However, despite the above indications, there currently remains uncertainty in the relation to the interpretation of ss.4D and 44 of the DMA. Whilst it is arguable that these provisions were not intended to prohibit the manufacture of hemp food products for human consumption (where there was no illicit use of cannabis) the issue is far from clear.

Using the ejusdem generis presumption, it may be that s.44 of the DMA is open to the interpretation that the word "consumption" is be limited to meaning consumption of cannabis in an illicit manner. However, the giving of a broad interpretation to the word "consumption" in ss.4D and 44 of the DMA is also clearly open on the wording of those sections.

## **2.3 Requirement for Amendment**

Because of the uncertainty in relation to the interpretation of the DMA it is submitted that the DMA needs to be amended to clarify the position in terms of the legality of manufacture, possession and sale of food products using industrial hemp or hempseed oil, and which has a THC content of below 1%.

The industrial hemp industry is potentially a very significant industry for Queensland and it is not appropriate for the industry to face significant legal uncertainty under the DMA.

Clearly, it is possible to clarify the intent of the DMA whilst maintaining a clear prohibition on any forms of illicit use of marijuana. We have included some suggested wording for the necessary amendments in Section 6.0 below.

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<sup>7</sup> Legislative Assembly 14 May 2002 page 1558 to 1559, Legislative Assembly 8 August 2002 pages 2865, 2867, 2870.

<sup>8</sup> Explanatory Notes, Drugs Misuse Amendment Bill 2002 page 2 and page 10.

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### **3.0 The Position in other Jurisdictions**

A number of interstate and overseas jurisdictions already permit the manufacture, possession and sale of industrial hemp food products.

We have outlined below some key examples in this regard.

#### **3.1 New South Wales**

New South Wales introduced the Hemp Industry Act in 2008, regulating the cultivation of low-THC hemp in New South Wales.

Under this Act, the Director-General may grant a licence authorising a person to cultivate or supply low-THC hemp for commercial production, use in any manufacturing process or for other purposes prescribed by regulations.<sup>9</sup>

Low-THC hemp is defined to include seeds of a cannabis plant which has a THC content in its leaves and flowering heads of no more than 1%.<sup>10</sup>

In New South Wales it seems that it would be possible to obtain a licence to manufacture food products from low-THC hempseeds.

#### **3.2 Victoria**

The Drugs, Poisons and Controlled Substances Act 1981 controls the use of hemp in Victoria.

Under s.4A of this Act processed products made from cannabis seeds with a THC content of no more than 0.001%, and which do not contain whole cannabis seeds, are taken outside the scope of the Act.<sup>11</sup>

Processed products are defined to mean treated by mechanical, chemical or other artificial means.<sup>12</sup> Food products made from cannabis seeds with a THC content below 0.001% would appear to be permitted in Victoria, provided that they do not contain whole cannabis seeds.

#### **3.3 New Zealand**

In New Zealand cultivation of industrial hemp under licence became legal on 1 August 2006, under the Misuse of Drugs (Industrial Hemp) Regulations 2006. The sale of hempseed oil as

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<sup>9</sup> Section 5, Hemp Industry Act 2008 (NSW).

<sup>10</sup> Section 3, Hemp Industry Act 2008 (NSW).

<sup>11</sup> Section 4A, Drugs, Poisons and Controlled Substances Act 1981 (Vic).

<sup>12</sup> Section 4A(2), Drugs, Poisons and Controlled Substances Act 1981 (Vic).



food is also legal in New Zealand. Explicit provision is made for the sale of hempseed oil in s.26 of the New Zealand Food (Safety) Regulations 2002. The relevant provision states:

**"26 Sale of hemp seed oil as food**

- 1) Despite standard 1.4.4 of the Food Standards Code, oil extracted from hemp seed may be sold as food in New Zealand if it complies with the requirements set out in subclause (2).
- 2) The requirements are,-
  - (a) in the case of hemp seed oil that is produced in New Zealand, the hemp seed oil is derived from cannabis seed from plants that are grown in New Zealand under and in accordance with any conditions attached to a licence to cultivate industrial hemp issued by the Director-General of the Ministry of Health;
  - (b) in the case of hemp seed oil that is imported into New Zealand, the hemp seed oil has been tested by an analyst working in a laboratory approved under the Misuse of Drugs Act 1975 and has been authorised for sale and use."

Under the Misuse of Drugs (Industrial Hemp) Regulations 2006, industrial hemp is defined as hemp in the form of plants with a THC content generally below 0.35% and not above 0.5%. This also includes seeds harvested from such plants.<sup>13</sup>

### **3.4 Canada**

Canada has also established a detailed regulatory framework governing the legal production and processing of industrial hemp for commercial purposes. The Industrial Hemp Regulations are the key regulatory provisions in this regard.

It appears that under the Canadian regulatory framework, if the level of THC in derivative hempseed products is less than a specified minimum that the Controlled Drugs and Substances Act and the Industrial Hemp Regulations will not apply. On this basis it seems that hempseed food products are then lawful under the relevant Canadian regulatory framework.

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<sup>13</sup> Section 4, Misuse of Drugs (Industrial Hemp) Regulation 2006.

### **3.5 Members of the European Union**

Whilst in most member States industrial hemp is only authorised as a non-food crop, in a number of European countries low strength THC industrial hemp products are it seems lawfully used in the production of food for human consumption.



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## 4.0 Australia and New Zealand Food Authority Report

The Australian and New Zealand Food Authority (ANZFA) is a bi-national Government agency responsible for developing and administering the Australia New Zealand Food Standards Code (the **Code**). The Code details the requirements for food products in Australia and New Zealand. This is enforced by the State or Territory Health Departments within Australia and New Zealand.<sup>14</sup>

In 2002, the ANZFA Report was published which examined the use of industrial hemp in food products. In the ANZFA Report it was stated that:

- there are no public health and safety concerns associated with the use of food products containing derivatives of industrial hemp;
- foods containing derivatives of industrial hemp do not produce any psychotropic effects and cannot be used as a source of THC; and
- there is considerable commercial and community interest in having available industrial hemp-based foods in Australia and New Zealand.<sup>15</sup>

ANZFA then recommended the removal of the total prohibition on the use of cannabis in food and the establishment of maximum levels for THC in specified foods.<sup>16</sup>

Unfortunately, this recommendation by ANZFA was not adopted by the Australian Federal Government because of concerns that this would indicate that the Government was condoning the use of illicit drugs. However, as outlined above, other jurisdictions have clearly distinguished between the illicit use of cannabis and the commercialised use of industrial hemp in food products.

A copy of the ANZFA Report is included under Schedule 2.

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<sup>14</sup> Food Standards Australia New Zealand, [www.foodstandards.gov.au](http://www.foodstandards.gov.au).

<sup>15</sup> Australia and New Zealand Food Authority, "Use of Industrial Hemp as a Novel Food" (2002), pages 18-19.

<sup>16</sup> Australia and New Zealand Food Authority, "Use of Industrial Hemp as a Novel Food" (2002) 19, accessed at [http://www.foodstandards.gov.au/\\_srcfiles/A360\\_Final%20AR.pdf](http://www.foodstandards.gov.au/_srcfiles/A360_Final%20AR.pdf).

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## **5.0 Importance of the Industrial Hemp Industry in Queensland**

### **5.1 Economic Impacts and Employment**

We anticipate that the amendments of relevant State and Federal legislation to allow for the production and sale of industrial hemp food products has the potential to create at least 5 new jobs in the North Burnett Region within 12 months. In addition to this, we expect that at least thirty 30 primary producers would then be engaged in growing commercial quantities of industrial hemp associated with this food production.

We expect that the industrial hemp industry could then expand within a 3 year period to create value in the vicinity of \$3m at the production level and \$10m when the value-added products for the region are taken into account. We expect that this industrial hemp industry would create at least 10 extra jobs within this 3 year period.

With projected market growth, we expect that the industrial hemp industry has the potential to grow to \$30m within 6 years, creating at least twenty 20 additional jobs. Using a basic multiplier of 3, we anticipate that the industrial hemp industry has the potential to be worth between \$9m and \$90m in flow-on benefits to the North Burnett and Greater Wide Bay Burnett Regions.

The abovementioned revenue and employment generation figures would have a significant economic and social impact on the North Burnett Region, which has been adversely affected for many years. These employment opportunities are also consistent with the Australian Government's "Keep Australia Working" initiatives. The Queensland Government also set a target to create 100,000 new jobs within 3 years from March 2009.<sup>17</sup> The expansion of the industrial hemp industry is consistent with point 3 of the four-point plan set out in Jobs First: Delivering Jobs for Queensland, as it supports new and traditional industries.

### **5.2 Industry Replacement**

The North Burnett Region has been negatively impacted by the very significant reduction in dairy and timber production and processing. We submit that the expansion of the industrial hemp industry has the potential to replace the lost income in the North Burnett Region and would utilize existing resources and infrastructure.

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<sup>17</sup> Department of Employment, Economic Development and Innovation, Jobs First: Delivering Jobs for Queensland, accessed at [www.deedi.qld.gov.au/jobs-first.htm](http://www.deedi.qld.gov.au/jobs-first.htm).



The expansion of the industrial hemp industry to include food production would provide the community with the opportunity to replace traditional production systems with more economically and environmentally sustainable alternatives.

It is important to note that the industrial hemp operations will significantly value-add to existing rural industry and capability and will potentially operate from abandoned food processing facilities that are already in existence.

### **5.3 Value-Adding, Domestic and Export Opportunities**

The Canadian hemp industry has been very successful. This clearly exemplifies the growth potential for industrial hemp products when these products are introduced to the marketplace. We submit that there is a very significant value-adding component to the value chain which could have a major economic impact on rural communities, providing business and employment opportunities.

We submit that value-adding for industrial hemp food production is an ideal starting point for the North Burnett Region. This innovative new product will allow the region to build on its existing competitive advantage in primary production while building value-added capability in the region. This type of activity is highlighted as a priority in North Burnett Regional Council's Economic Development Plan.<sup>18</sup>

The Queensland Government's Processed Food Sector Action Plan is also focussed on innovation, value-adding, production of higher value products, capturing further share in export high-end niche markets.<sup>19</sup> We submit that the expansion of the industrial hemp industry to include production of food products from industrial hemp is also totally consistent with this strategy.

### **5.4 Green Credentials and Opportunities**

As part of our desire to establish an innovative new industry in the North Burnett Region, we are intensely aware of the need to ensure future sustainability of such a primary-production generated output. This has been recognised by the Queensland Government, with one of the ambitions of the Queensland Government being to protect the Queensland lifestyle and environment.<sup>20</sup> We submit that the expansion of the industrial hemp industry to include the production of food products from industrial hemp is consistent with this ambition.

Industrial hemp is a sustainable, environmentally friendly crop. Some of the environmental benefits of industrial hemp production are well documented from an agronomic perspective and include:

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<sup>18</sup> North Burnett Regional Council, The North Burnett Region: A Centre for Rural Innovation, An Economic Development Plan for the North Burnett Region 2009-2014, 2009, pages 34-36.

<sup>19</sup> Queensland Government, Processed Food Sector Action Plan, page 3.

<sup>20</sup> Queensland Government, Toward Q2: Tomorrow's Queensland, 2008, page 8.

- low to moderate water requirement;
- very low pesticide requirement;
- excellent nutrient mop extracting excess nutrients after legume crops or intensively fertilized vegetable crops;
- improvements to soil friability and water holding capacity when used in rotation with other crops;
- very high carbon sink rating due to very good short to medium term carbon sequestration in the soil;and
- products produced for industrial and building use have the ability to significantly reduce the overall carbon footprint of buildings and other products through long-term sequestration of carbon.



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## 6.0 Legislative Amendments

The key provisions that need to be amended in the DMA to allow the use of industrial hemp in food products are ss.4D and 44 of the DMA. Effectively, the primary amendment is to delete from each of these sections the reference to the consumption of relevant products. It is submitted that the appropriate changes will be minimal. We have tracked up below the changes that would remove this area of legislative uncertainty. In doing so, we have taken a minimalist approach to maintain the fundamental integrity of the amendments introduced by the Amendment Act.

The relevant changes are set out below.

### 4D Non-application of ss 5, 6, 8 and 9 to particular manufactured products

(1) Sections 5, 6, 8 and 9 do not apply to a manufactured product.

(2) In this section—

*industrial cannabis plant* has the same meaning as in section 46.

*manufactured product* means a product that—

(a) is made from, or partly from, processed cannabis that—

(i) is harvested from industrial cannabis plants; and

(ii) has a concentration of THC in it of not more than 0.1%; and

(b) is in a form that stops it from being smoked or administered. ~~or consumed.~~

*processed cannabis* has the same meaning as in section 46.

### 44 Object of pt 5B

The object of this part is to facilitate—

(a) the processing and marketing of, and trade in, industrial cannabis fibre and fibre products; and

(b) the processing and marketing of, and trade in, industrial cannabis seed and seed products, other than for the purpose, directly or indirectly, of producing anything for administration to, ~~or consumption~~ or smoking by, a person.

It is also submitted that, to ensure that there can be no future dispute about the relevant intention of the DMA in relation to the use of industrial hemp products in food, that in Part B Division 1 of the DMA a specific section should be inserted to provide that industrial cannabis and industrial cannabis seed may be used in the manufacture, production, sale or distribution of food products for human consumption.

A suggested amendment to the DMA is set out below for your consideration, being:-

**45A Use of Industrial Cannabis Products in Food**

- (1) Processed cannabis and industrial cannabis seed that:
  - (a) is harvested from industrial cannabis plants; and
  - (b) has a concentration of THC in it of not more than 0.1%;may be used in the manufacture and production of food for human consumption.
- (2) Food products for human consumption which are made from, or partly from, processed cannabis and industrial cannabis seed that:
  - (a) is harvested from industrial cannabis plants; and
  - (b) has a concentration of THC in it of not more than 0.1%;may be possessed, supplied, sold or offered for sale.

Again, it is acknowledged that the final drafting of any amendment to the DMA of this nature will be the responsibility of both the Department and Parliamentary Counsel. The intention of providing the above draft amendment is simply to indicate the ease with which this particular matter can be dealt with in terms of removing all legal doubt from the relevant operation of the DMA.



**Schedule 1 - Submission to ANZFA of the Queensland Industrial Hemp Advisory Committee**