

# Low THC Hemp Seed Food

## Purpose

This document provides information about hemp seed foods to consumers and the food industry.

## Introduction

The sale of hemp seed foods was prohibited in Australia until 12 November 2017, when amendments to the *Australia New Zealand Food Standards Code* (Food Standards Code) legally permitted their retail sale subject to a number of requirements.

Hemp seed foods include hulled hemp seed, and foods derived from hemp seed such as oil, beverages, flour and protein powder. Like nuts and other seeds, hemp seed foods are good sources of a number of nutrients including protein, dietary fibre and polyunsaturated (particularly omega-3) fats. Table 1 below provides information about the different types of hemp seed food that are permitted.

Hemp seed foods, marijuana and medicinal cannabis are all produced from the *Cannabis sativa* plant. The leaves and flowering heads of some varieties of *Cannabis sativa* produce high levels of the psychoactive chemical, delta 9-tetrahydrocannabinol (THC), and these plants are used to produce marijuana – an illegal drug. Other *Cannabis sativa* varieties contain very low levels of THC and are used to produce hemp fibre and hemp seed which do not have any psychoactive properties.

## Hemp seed foods and the Food Standards Code

### The plant

Hemp seed foods may only be legally sourced from low THC *Cannabis sativa* plants. *Cannabis sativa* is considered to be low THC if the leaves and flowering heads do not contain more than 1% THC<sup>1</sup>. All other species of *Cannabis* plants are prohibited in food<sup>2</sup>.

Only foods derived from low THC hemp seeds may be sold legally. This means that the sale of food made from the leaves, flowers, buds, stems, or any other part of the *Cannabis sativa* plant is prohibited. Seeds for retail sale must be hulled and unable to germinate, although viable unhulled seeds may be used in the production of hemp seed foods<sup>3</sup>, for example, crushed to produce hemp seed oil.

### THC

The amount of THC which is permitted in hemp seed foods is provided in section 1.4.4—6 in the Food Standards Code. These limits are expressed in terms of total THC (mg/kg), which is the combined amount of THC and its acid form, delta 9-tetrahydrocannabinolic acid (THC-A). Both chemical forms are considered because non-psychoactive THC-A is converted to psychoactive THC at high temperatures, for example, during cooking.

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<sup>1</sup> Food Standards Code, section 1.4.4—6

<sup>2</sup> Food Standards Code, subsections 1.1.1—10(5)(a) and 1.1.1—10(6)(e); Schedule 23—2

<sup>3</sup> Food Standards Code, section 1.4.4—6

The hulled seeds of low THC *Cannabis sativa* must not contain more than 5 mg/kg of total THC. Maximum levels of total THC for other hemp seed foods are 10 mg/kg in oil, 0.2 mg/kg in a beverage, and 5 mg/kg for any other product derived from seeds of low THC *Cannabis sativa*. These other products include hemp flour and hemp protein powder (Table 1). Hemp seed foods may be used as ingredients in foods containing non-hemp ingredients. Provided total THC levels in all hemp seed food ingredients comply with the maximum permitted levels of total THC, the total THC level in the final food will also be compliant. It is the responsibility of the manufacturer to ensure that low THC hemp seeds or hemp seed products that comply with the Food Standards Code are used in the manufacture of hemp seed foods, for example, by only sourcing certified or quality assured products.

## Cannabidiol (CBD)

THC and CBD belong to a class of compounds called cannabinoids. *Cannabis sativa* plants contain over one hundred cannabinoids, although most are found in trace amounts. Unlike THC, CBD does not appear to have any psychoactive effects and in recent times has been of interest for its potential therapeutic properties.

Only the very low levels of cannabinoids naturally present in or on seeds are allowed in hemp seed foods<sup>4</sup>. This restriction prohibits the fortification of hemp seed foods with cannabinoids, and ensures that rigorous cleaning methods are used to reduce any cannabinoid contamination of seeds.

The level of CBD in food for sale must not exceed 75 mg/kg<sup>5</sup>. This limit was put in place to distinguish hemp seed food from some medicinal cannabis products.

Oils with a high CBD content (CBD oil, CBD hemp oil, and cannabis oil) which are extracted from the flowers, leaves and stalks of *Cannabis sativa*, cannot be sold as food because of the requirement that hemp seed foods be derived only from seeds<sup>6</sup>.

**Table 1 Legal hemp seed foods**

Food	Information
Hulled hemp seed	<ul style="list-style-type: none"> <li>• Also termed ‘hemp hearts’</li> <li>• May be consumed as-is, sprinkled on, or included in, salads and baked goods.</li> <li>• Must be non-viable and hulled [1.4.4—6(1)]*</li> <li>• Maximum total THC: 5 mg/kg [1.4.4—6(1)]; maximum CBD: 75 mg/kg [1.4.4—8]</li> </ul>
Hemp seed oil	<ul style="list-style-type: none"> <li>• Extracted by pressing whole seeds or hulled seeds</li> <li>• Is generally unsuitable as a cooking oil</li> <li>• May be used as an ingredient in salad dressings or as a drizzle</li> <li>• Maximum total THC: 10 mg/kg [1.4.4—6(2)(a)]; maximum CBD: 75 mg/kg [1.4.4—8]</li> </ul>
Hemp seed milk or other beverage	<ul style="list-style-type: none"> <li>• Filtered extract made from hemp seeds blended or ground in water</li> <li>• May be sold as a dairy substitute</li> <li>• Maximum total THC: 0.2 mg/kg [1.4.4—6(2)(b)]; maximum CBD: 75 mg/kg [1.4.4—8]</li> </ul>
Hemp flour and hemp protein powder	<ul style="list-style-type: none"> <li>• Also called ‘seed cake’</li> <li>• Is the solid product remaining after seeds are pressed to extract oil, and is milled to a powder</li> <li>• May be used as a (gluten free, vegan, plant-based) protein and amino acid fortifier ingredient in smoothies, baked goods and other foods</li> <li>• Maximum total THC: 5 mg/kg [1.4.4—6(2)(c)]; maximum CBD: 75 mg/kg [1.4.4—8]</li> </ul>

\* References in square brackets refer to sections in the Food Standards Code

<sup>4</sup> Food Standards Code, clauses 1.4.4—6(1 & 3),

<sup>5</sup> Food Standards Code, section 1.4.4—8

<sup>6</sup> Food Standard Code, subsection 1.4.4—6(3)

## Labelling and marketing

Section 1.1.4—7 in the Food Standards Code specifies the claims and representations that may be made about hemp seed foods. These requirements were introduced to prevent the marketing of low THC hemp seed foods in ways that could potentially indicate the acceptability of illicit cannabis, and to differentiate low THC hemp seed foods from medicinal cannabis.

Hemp seed foods must not be labelled in a form which suggests that they have a psychoactive effect, and must not include an image of any part of the *Cannabis sativa* plant (other than the seed). The label must not include the words cannabis or marijuana. The label must not include a nutrition content claim or health claim about the presence or absence of CBD, or the name or concentration of CBD<sup>7</sup>. This is because high CBD products are more appropriately regulated as medicines, and prevents the marketing of low THC hemp seed foods, which contain low levels of CBD, as a source of CBD.

Restrictions on the claims and representations which may be made about hemp seed foods are not limited to labels but also apply to advertising. Section 1.2.1—23 states that if the Food Standards Code prohibits a label on or relating to a food including a statement, information, a design or a representation, an advertisement for that food must not include that statement, information, design or representation.

## Other legislative requirements

It will not be an offence under the *Drugs Misuse Act 1986* (Qld) for a person to be in possession of a low THC hemp seed food that complies with the Food Standards Code. However, offences in the *Drugs Misuse Act 1986* enforced by the police still remain for cannabis products not regulated by the Food Standards Code, for example a food which contains high THC cannabis, such as a cannabis cookie containing cannabis resin as an ingredient.

Specific varieties of low THC *Cannabis sativa* plants are currently grown to produce fibre in Queensland under licensing arrangements in Part 5B of the *Drugs Misuse Act 1986*. However, as of 12 November 2017, the *Drugs Misuse Act 1986* did not allow the cultivation of low THC hemp seed for food in Queensland.

Businesses in Queensland that manufacture low THC hemp seed foods (for example food oil production) require a food business licence from their local government under the *Food Act 2006*.

## Drug tests

### Police roadside drug tests

Research has shown that the minute amounts of THC present in hemp seed foods will not be detected by current police oral fluid-based (saliva) roadside drug tests. Accordingly, it would be difficult for anyone who produces a positive THC test result from a police roadside drug test to successfully argue the presence of THC in their oral fluid sample was solely a result of eating low THC hemp seed foods.

### Workplace, sport and other drug testing programs

Excessive consumption of hemp seed foods, particularly hemp seed oil, could result in THC being detected in a blood test. This should be considered by anyone who is subject to testing for illicit drugs where there is a zero tolerance for the presence of THC, such as some work and competitive sport drug testing programs. However, studies have shown that THC from low THC hemp seed foods is unlikely to be detected in urine samples analysed according to Australian Standards (AS/NZS 4308-2008) or oral fluid tests.

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<sup>7</sup> Food Standards Code, subsection 1.4.4—7(3) and section 1.2.7—13

## Further information

The Food Standards Code may be accessed from the Food Standards Australia New Zealand (FSANZ) website at [www.foodstandards.gov.au/code/Pages/default.aspx](http://www.foodstandards.gov.au/code/Pages/default.aspx)

The Queensland Department of Health has a variety of fact sheets with detailed information on food safety and labelling including *Label Buster – A guide to the labelling requirements of the Food Standards Code*. These can be accessed at [www.health.qld.gov.au](http://www.health.qld.gov.au)

If you have any further questions relating to the sale of hemp seed foods, contact your local Public Health Unit. Contact details for Public Health Units can be found at [www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units](http://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units)

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