

## submissions

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**From:** Brian Hinson [REDACTED]  
**Sent:** Tuesday, 2 August 2016 5:10 PM  
**To:** submissions  
**Subject:** P1042 Low THC hemp.

To whom it may concern,

Allowing low THC hempseed to be deemed suitable for human consumption, would provide an alternative and environmentally sustainable source of omega 3 and 6 fatty acids from the seed oil. This could take some pressure off less sustainable marine sources of these essential oils. Incidentally, hempseed oil has these essential fatty acids in a similar ratio to those found in oily fish. The omega 3:6 ratio is an important factor in maximizing nutritional values.

By allowing the human consumption of hempseed oil, this will increase future plantings and allow sufficient quantities of residual protein and starch (after oil removal) to be available for other food products, for both human and farmed animals alike. Unlike most other cereal crops, hempseed protein doesn't contain any trypsin inhibitor compounds. This allows farmed birds, mammals and fish to more efficiently absorb feed protein to increase body mass from lower quantities of food. I feel sure salmon farmers will be particularly interested in using hempseed protein after oil extraction.

I'd also like to mention that I hold an Australian Innovation Patent for a method which considerably increases the shelf life of hempseed oil. [REDACTED]

[REDACTED] The resultant oil contains hempseed's highly nutritious omega 3 and 6 fatty acids, as well as the olive's Vitamin E, antioxidants, plus those anti-viral, anti-fungal and anti-bacterial properties, which are found predominantly in early harvested cool climate olives. This resultant oil has the potential to become the world's most nutritious oil.

I consider that hempseed starch for fermenting and distilling into a pure spirit or infused gin style, is worthy of trialing to determine marketability.

Of further interest is the potential to ferment and distil the young leaves and stems. Hempseed crops need main stem tip removal early in the growth development stage. This tip removal is necessary to force the plant to form more lateral branches and subsequently increase the seed yield. This also maximizes the foliage density, which in turn reduces sunlight getting to the soil, thus suppressing weed growth, for this and subsequent crops.

I have been informed that there is overseas demand for fermented stem and foliage distillate for cosmetic use. Increased plantings for human food production, could give the necessary plant headed quantities to further my investigations in this market.

In the event that there are unrealistic concerns that distilling any hemp products in a water solution may concentrate THC, please be advised that the boiling point of THC is 157 degrees Centigrade. Ethanol's boiling point is only 78.3 C and water 100 C. Therefore, from an aqueous solution the distillation equipment cannot convert THC to a vapour.

Also, please be aware that the fatty acid profile of botanically grown oil changes with climate and growing latitudes. Decreasing geographic latitudes have higher proportions of monounsaturated fatty acids, less saturated fatty acids and more tocopherols. It is highly probable that like olives, Tasmania's cool climate can produce a highly nutritious hempseed oil, when deemed suitable for human consumption.

Regards,

Brian Hinson