

## The nutritional and therapeutical value of Cannabis Sattiva

G.Kuppuram<sup>1</sup>

Received June 26, 2022 & Revised June 26, 2022 & Accepted June 30, 2022

### Abstract

This Keynote address highlights important research and experiential outcomes from scholars, civil society organizations, affected populations, and market stakeholders on how Cannabis Sattiva can play a balanced role between science and social sustainability. It seeks to show the potential of the Cannabis plant inappropriately regulated settings as transformative for our societies – so long as ethical practices and sustainable approaches are kept central. Hemp (*Cannabis sativa* L.) is a herbaceous anemophilous plant that belongs to the Cannabinaceae family. The cannabis seed (hemp) has long been utilized as a food source and is commercially important as an edible oil source. In this review, the positive and negative health effects of cannabis, the relationship between cannabis and various diseases, and the use of cannabis in various food products have been discussed. In addition, the scientific literature on the potential use of cannabis and its derivatives as a dietary supplement for the prevention and treatment of inflammatory and chronic degenerative diseases in animals and humans has been reviewed. Cannabis is being developed as a key ingredient in a variety of food items, including bakery, confectionery, beverages, dairy, fruits, vegetables, and meat. The nutritional profile of Hemp seeds contains plenty of protein, healthful fatty acids, and fiber. Hemp seeds are also a healthful source of vitamin E and minerals, such as calcium, iron, magnesium, potassium, and zinc. How to add hemp seeds to the diet. Try incorporating hemp seeds into the diet by sprinkling whole or ground seeds on cereal or yogurt adding the seeds to smoothies baking with hemp seeds and others rich in omega-3s making hemp milk at home using whole seeds sprinkling hemp seeds, along with other seeds or nuts, and on a salad.

**Keywords:** *cannabis hemp, tetrahydrocannabinol, cannabidiol, cannabis-infused foods, cannabis products*

### Introduction

The Science of Cannabis Sativa is Amazing and prognostic yet its social Sustainability is Shocking in this Modern World but we can all Balance it

---

<sup>1</sup> Formerly Emeritus and Adjunct Professor of Human Evolutionary Biology, History and Archaeology, Turkana University, Kenya  
Email: [gananadar@gmail.com](mailto:gananadar@gmail.com)



Hemp seeds are high in readily digestible proteins, lipids, polyunsaturated fatty acids (PUFA), insoluble fibre, carbs, and favorable omega-6 PUFA acid to omega-3 PUFA ratio and have high nutritional value. The antioxidants of cannabis, such as polyphenols, help with anxiety, oxidative stress, and the risk of chronic illnesses, including cancer, neurological disorders, digestive problems, and skin diseases. Cannabis has been shown to have negative health impacts on the respiratory system, driving and psychomotor functions and the reproductive system.

Industrial hemp (*Cannabis sativa* L., Cannabaceae) is an ancient cultivated plant originating from Central Asia and historically has been a multi-use crop valued for its fibre, food, and medicinal uses. Various oriental and Asian cultures kept records of its production and numerous uses. Due to the similarities between industrial hemp (fibre and grain) and the narcotic/medical type of Cannabis, the production of industrial hemp was prohibited in most countries, wiping out centuries of learning and genetic resources. In the past two decades, most countries have legalized industrial hemp production, prompting a significant amount of research on the health benefits of hemp and hemp products. Cannabis sativa, also known as Cannabis indica or Indian hemp, is an annual herb of the family

Cannabinaceae. It is a native to Central Asia, and long cultivated in Asia, Europe and China. Plants yielding the drug seem to have been discovered in India, cultivated for medicinal purposes as early as 900 BC. Hindu devotees offered Cannabis to Lord Shiva during religious ceremonies and the herb continues to have a religious association in India. Together with coffee and tobacco, Cannabis is the most commonly used psychoactive drug worldwide and it is the single most popular illegal drug.

Cannabis sativa L., commonly called hemp (cannabis seed) or cannabis, is the herbaceous anemophilous plant in the Cannabaceae family. Cannabis is a general word that refers to all plants that belong to the *Cannabis* genus. Most researchers are of the opinion that this plant originated in Asia and was transported to Europe as a domesticated and cultivated crop during the Bronze Age (22nd to the 16th century BC), as observed from molecular analysis, polygenetic studies, and DNA extraction from modern and archaeobotanical samples.

Cannabis contains over 100 active chemical compounds known as 'cannabinoids'. The plant contains a huge number of cannabinoids, the most psychoactive of which is delta-9-tetrahydrocannabinol (THC). THC also has appetite stimulant, anti-inflammatory, analgesic, and anti-emetic qualities, making it a very promising medication for medicinal applications. Cannabis is used for textile and food uses since it is high in cannabidiol (CBD) or similar chemicals and is practically devoid of delta-9-THC.

Cannabis has a high nutritional content, which is why all parts of the plant, including the stem, seeds, roots, and flowers, have been used for food, feed, and therapeutic purposes for a long time. Hemp seed has been utilized as a food source since ancient times, particularly in Asian civilizations, and is commercially significant as a source of edible oil. Seeds can be used in cosmetics, different food products, and animal feed. Seeds are subjected to cold press to extract good-quality oil.



Hemp seed contains powerful antioxidants, such as polyphenols, that can help to treat many diseases, such as anxiety, oxidant stress, and the risk of chronic illnesses, including cancer, neurological disorders, digestive problems, and skin diseases.

### **Food Products of Cannabis**

Cannabis products are increasingly being acknowledged as beneficial foods. Seeds are a useful dietary source that is high in readily digested proteins, lipids, PUFAs, insoluble fibre, and carbohydrates. They have a favourable omega-6 PUFA to omega-3 PUFA ratio, are quite well suited to human nutrition, and aid in cardiovascular health, eczema, constipation, atopy, and cancers, among other disorders.. A cannabis product is a foodstuff that contains cannabis components and can be consumed as oils, oil-filled capsules, or tinctures in medicinal practice. Several cannabis-infused food items are available for recreational use.

### **Beverages**

Plant-based meals and drinks have gained popularity over the previous decade, and the industry is rapidly expanding. For example, milk substitute beverages derived from a plant-based material that includes soy, coconut, almonds, and cannabis, have gained prominence. Cannabis milk is a common vegetarian substitute for cow's milk, and it is perfect for individuals who have a milk allergy (lactose intolerance) or for individuals who avoid dairy, soy, or gluten

### **Hemp seeds and human health**

These small, brown seeds are rich in protein, fiber, and healthful fatty acids, including omega-3s and omega-6s. They have antioxidant effects and may reduce symptoms of numerous ailments, improving the health of the heart, skin, and joints.

### **Nutritional value of hemp seeds**

These seeds are full of nutritious compounds like:

Protein Hemp seeds contain almost as much protein as soybeans. These seeds are a complete source of protein, meaning that they provide essential amino acids. That hemp seeds are a valuable addition to a vegetarian or vegan diet. Hemp seeds are especially rich in an amino acid called arginine which contains nitric oxide ,useful for the strength of the heart .

### **Unsaturated fats**



Hemp seeds are a great source of essential fatty acids, such as alpha-linolenic acid (ALA), which is an omega-3. The body cannot produce essential fatty acids, and the body must absorb them from the diet. They are crucial for long-term health.

#### **Fiber**

Much of the fibre in a hemp seed lies in its outer hull, or shell. If possible, purchase hemp seeds with the hulls intact. However, even without the shells, hemp seeds are a good source of fiber, with three tablespoons containing approximately of fiber. Consuming enough fiber every day can: reduce the appetite help with weight management work to stabilize blood sugar levels promote the health of the gut

#### **Minerals and vitamins**

Hemp seeds contain an impressive array of vitamins and minerals and a good source of iron, zinc, and B vitamins.

#### **On the health side they are found to be:**

A shield for the Brain The CBD compound found in hemp seeds may help with neurological conditions. A study published in the journal Food Chemistry found that hemp seed extract has antioxidant effects in lab tests. These effects may result from the seeds' with cannabidiol content.

#### **CBD may help with neurological conditions, including:**

Parkinson's disease, Alzheimer's disease, multiple sclerosis, neuropathic pain, childhood seizure disorders

#### **Gives immunity to the heart**

The medical community believes that omega-3 fatty acids improve the health of the heart and reduce the risk of issues such as arrhythmias and heart disease. Hemp seeds contain high levels of omega-3s and a healthful ratio of omega-6 fatty acids.

#### **Decreases inflammation**

The amount of omega-3s in hemp seeds and the seeds' healthful omega-3 to omega- ratio can together help to reduce inflammation. In addition, hemp seeds are a rich source of gamma-linolenic acid (GLA), a polyunsaturated fatty acid that may also have anti-inflammatory effects and alleviating diseases, such as: metabolic syndrome type 2 diabetes arthritis heart disease non-alcohol-related fatty liver disease

#### **Panacea for skin infections**



Atopic dermatitis (AD) and acne can both result from chronic inflammation. The high omega-3 content in hemp seeds may help to manage and reduce acne symptoms. Prebiotics and plant fibres may help to manage symptoms of AD.

#### **Herbal medicine for rheumatoid arthritis**

Rheumatoid arthritis is an autoimmune condition. It causes the immune system to attack its own tissues, which leads to inflammation in the joints.

#### **Nutritional profile of hemp seeds**

Hemp seeds contain plenty of protein, healthful fatty acids, and fiber. Hemp seeds are also a healthful source of vitamin E and minerals, such as calcium, iron, magnesium, potassium, and zinc.

#### **How to add hemp seeds to the diet**

Try incorporating hemp seeds into the diet by: sprinkling whole or ground seeds on cereal or yogurt adding the seeds to smoothies baking with hemp seeds and others rich in omega-3s making hemp milk at home using whole seeds sprinkling hemp seeds, along with other seeds or nuts, and on a salad.

#### **Risks**

Although hemp seeds come from the cannabis plant, they ideally contain no tetrahydrocannabinol (THC), which is the active ingredient in cannabis. Hemp seeds will not produce a mind-altering effect. In any case sportsman and athletes who undergo drug testing can lead to failed urine tests.

#### **Therapeutic agents:**

Hemp seeds contain high levels of antioxidants, fatty acids, minerals, and vitamins. The most healthful choice is to eat a varied diet that contains a wide range of nutrients.

#### **Conclusions**

Progressive outlook; According to evidence, cannabis and cannabinoids have a wide range of biological effects, including chronic pain management in adults, antiemetics in chemotherapy-induced nausea and vomiting, and decreased patient-reported MS spasticity symptoms. The food and beverage sectors have looked at developing cannabis-based goods as a new and innovative industry, based on evidence. The majority of the study on industrial hemp's health benefits has been done in a preclinical phase. Overall, the cannabis sector is beginning to take off throughout the world. Regulatory authorities must differentiate industrial hemp from medicinal cannabis (marijuana) to fulfil the economic potential of



industrial cannabis as a long-term source of value-added functional food components and nutraceutical products. Thanks to the smiles of Thai people who had come with a White paper smile embracing Thai Boat noodle soup and Thai sticks –a Bedrock commitment to its nation’s cannabis science development and public health.

## Reference

- Andre C.M., Hausman J.F., Guerriero G.(2016) Cannabis sativa: The plant of the thousand and one molecules. Front. Plant Sci. 2016;7:19. Doi: 10.3389/fpls.2016.00019. - DOI - PMC - PubMed
- Callaway J.C.(2004) Hempseed as a nutritional resource: An overview. Euphytica. 2004;140:65–72. doi: 10.1007/s10681-004-4811-6. - DOI
- Ranalli P., Venturi G.(2004) Hemp as a raw material for industrial applications. Euphytica. 2004;140:1–6. doi: 10.1007/s10681-004-4749-8. - DOI
- Struik P.C.,(2000) Amaducci S., Bullard M.J., Stutterheim N.C., Venturi G., Cromack H.T.H. Agronomy of fibre hemp (Cannabis sativa L.) in Europe. Ind. Crops Prod. 2000;11:107–118. doi: 10.1016/S0926-6690(99)00048-5. - DOI
- Vonapartis E., Aubin M.P., Seguin P., Mustafa A.F., Charron J.B.(2015) Seed composition of ten industrial hemp cultivars approved for production in Canada. J. Food Composit. Anal. 2015;39:8–12. Doi: 10.1016/j.jfca.2014.11.004. - DOI

