Scientific Innovation Magazine
ISSN : 2584-1157

Nutritional Benefits of Super Food

Ms. Unnati Kumawat, Ms. Mamta Choudhary, Ms. Khushbu Goswami, Ms. Sunidhi Barala
M.sc Research Scholar, FSN Department, CCAS, MPUAT, Udaipur
M.sc Research Scholar, FSN Department, CCAS, MPUAT, Udaipur
M.sc Research Scholar, FSN Department, CCAS, MPUAT, Udaipur
M.sc Research Scholar, FSN Department, CCAS, MPUAT, Udaipur
E-mail = kumawatunnati2910@gmail.com

Abstract:

Super foods, recognized for their exceptional nutritional profiles and health benefits, have gained significant attention in recent years for their role in promoting overall health and preventing chronic illnesses. These nutrient-dense foods, rich in vitamins, minerals, antioxidants, and bioactive compounds, are linked to improvements in both physical and mental well-being. Examples such as avocado, kefir, goji berries, moringa, and hempseed offer diverse benefits, from weight management and cardiovascular health to immune support and anti-inflammatory properties. Avocado, for instance, is rich in healthy fats, fibre, and essential vitamins, supporting weight management and cardiovascular health. Kefir, a fermented milk product, strengthens the immune system and aids in digestive health, while goji berries provide potent antioxidants and anticancer properties. Moringa is a versatile plant with significant nutritional and medicinal benefits, and hempseed is a nutrient-dense source of highly digestible protein. By integrating superfoods into dietary practices, individuals can address diet-related health concerns, such as obesity, diabetes, and heart disease, while supporting overall well-being. This article synthesizes current research to highlight the importance of incorporating superfoods into daily diets to enhance health and prevent chronic illnesses.

Introduction:

Originally, the word "superfood" referred to unprocessed or non-processed foods having a nutritional makeup that supports healthy bodily functions and gives power (Proestos, 2018). Superfoods come in a variety of forms, and each one serves a distinct purpose in promoting both weight loss and overall health. The majority of superfoods are plant-based and high in vitamins,

minerals, and antioxidants. In this sense, one of the greatest food choices for lowering body fat is fruit. Consuming superfoods could give the body a wealth of antioxidant and antibacterial compounds, fiber, and vitamins A, B, C, K, and others, claims Proestos (2018). Additionally, it was suggested that eating superfoods could lower the risk of metabolic syndrome, diabetes, cancer, obesity, and cardiovascular disease. According to Arumugam (2017), despite having access to a variety of native fruit varieties, the majority of Malaysians do not eat enough fruits each day. The Malaysian Dietary Guidelines (2010) state that eating fruits on a daily basis may lower the long-term risk of weight gain and obesity.

An overview of super foods :

1.Avocado :- (Persea americana)

Because of its high protein and vitamin A and B content, avocados are regarded as a fruit with excellent nutritional value and energy. Additionally, according to Duarte *et al*. (2016), it possesses medium levels of vitamins D and E. Gupta *et al*. (2018) concurred that because avocados are high in vitamins and minerals, eating them may aid with weight control. Avocados are also rich in fibre and good fats, which can slow down digestion and increase feelings of fullness, according to Weschenfelde *et al.* (2015). According to Gupta *et al.* (2018), avocado adds wholesomeness and satisfaction to the diet. Ford & Liu (2020) proposed that because avocados are abundant in dietary fibre, vitamins E and K, magnesium, and potassium, eating them may help improve diet quality and reduce sugar intake.

Nutritional benefits:-

Avocados, the third fruit, may aid in the absorption of fat-soluble vitamins. According to Duarte *et al.* (2016) and Weschenfelder *et al.* (2015), avocados are a food that can help people lose weight and are appropriate for the Mediterranean diet (Ford & Liu, 2020). Of all the fruits, avocados contain the least amount of sugar (Weschenfelder *et al*., 2015 & Ford & Liu, 2020). They also work well in substitution of foods like butter and margarine that are rich in fat and sodium. Accordingly, consuming too much trans and saturated fat may increase blood levels of harmful LDL cholesterol (Weschenfelder *et al*., 2015). However, Ford & Liu (2020) found no

proof of any negative effects from eating avocados. However, Dreher & Davenport (2013) claimed that eating avocados with a moderate-fat diet efficiently helps people regulate their weight and lowers their chance of developing chronic

2. Kefir: (Lactobacillus kefiranofaciens)

Kefir is a fermented milk beverage that is delicious, refreshing, easy to digest, and nutritious. It is a single, thick beverage that tastes harsh, acidic, and foamy. A wide range of bacteria ferment to generate kefir, which is lactic and alcoholic. As a result, it is regarded as better than yogurt made just through lactic fermentation. Russian researchers have investigated the nutritional worth of kefir and demonstrated its advantageous qualities. Because kefir contains bacteria and yeasts that produce acetic acid, it has a stronger effect on germs that enter the digestive tract with food and water than other acidic milk products. Additionally, it exhibits strong protein hydrolysis, which results in a high concentration of peptides and amino acids in the results.

Nutritional benefits:

It affects the management of the organism's pathological states, such as anemia. It affects digestive tract disorders such chronic enteritis. Its diuretic qualities have been enhanced. Due to its low calorie and lipid content, it does not put a lot of strain on the human body. It aids in the prevention of high blood pressure and atherosclerosis. It may have antitumor properties. It lowers elevated blood cholesterol. It possesses potent antibacterial and antioxidant qualities. It makes the immune system stronger.

3.Goji Berries :(Lycium barbarum)

The fruit berry known as (Lycium barbarum) is found on a particular kind of boxthorn plant in the Solanaceae family. This plant family also includes fruits and vegetables such chili peppers, tomatoes, potatoes, and eggplants. Goji berries' high zeaxanthin content is also very advantageous for preserving good vision.. Scientists are looking for items with improved health-promoting qualities based on clinical and epidemiological studies as well as the current analysis of food. Additionally, research is being done on raw materials that can be utilised to produce appropriately designed food [Ahmad *et al.,* 2015; Hęś *et al*., 2011; Kmiecik *et al.*, 2015]. A new

area of study in the context of nutrition and health is bioactive foods.

Nutritional benefits:

Goji fruit components have been used in traditional Chinese medicine to stop cancer from starting and spreading. Goji has immunostimulatory properties as well. Numerous experiments have confirmed that the chemicals found in goji berries have antiproliferative and pro-apoptotic effects on cancer cells [Tang *et al.*, 2012]. In addition to increasing macrophage phagocytosis and antibody release by spleen cells, Gan *et al*. [2004] confirmed that Goji polysaccharide fractions may significantly suppress the formation of transplantable sarcoma in mice. Additionally, compared to the affected control group, there was an increase in the proliferation of spleen lymphocytes. Additionally, it was discovered that Goji polysaccharide fractions may significantly lower lipid peroxidation in mice and stop liver cancer cells from proliferating [Zhang *et al*., 2005]. Mao and associates.

4.Maringa :(Moringa oleifera)

Moringa's capacity to grow in almost every country makes it useful for both food and medicine. Africa, Central and South America, and Asia are now the regions with the highest rates of growth. However, its repercussions are being seen globally. The plant is cultivated for food and is a very nutrient-dense vegetable tree with a number of potentially useful variants (Ozumba, 2011). Because Moringa oleifera is a source of naturally occurring phytochemicals, it has long been known in the Ayurvedic medical system to have a variety of medicinal and environmental uses. These include antihypertensive, diuretic, cholesterol-lowering, antispasmodic, antiulcer, hepatoprotective, antibacterial, antifungal, antitumor, anticancer, and water purifying properties (Anwar 2007). The ability of leaf extracts to cause apoptosis, or programmed cell death, in the human body when taken orally is noteworthy and raises the possibility that Moringa oleifera could be useful in the treatment of cancer (Sreelatha *et al.,* 2011). Research on Moringa oleifera as a medicinal species is further encouraged by the fact that its aqueous leaf extract has been shown to be safe when taken orally (Awodele *et al.,* 2012).

Nutritional benefits:

As the "Natural Nutrition of the Tropics," Moringa oleifera is a significant food product that has drawn a lot of attention. Many nations, especially those in India, Pakistan, the Philippines, Hawaii, and many areas of Africa, use this tree's leaves, fruit, flowers, and immature pods as a highly nutritious vegetable (D'souza and Kulkarni, 1993; Anwar and Bhanger, 2003; Anwar *et al*., 2005, Anwar *et al.,* 2007). Because it is used to boost a woman's milk production and is occasionally prescribed for anemia, it is referred to as "Mother's Best Friend" (Estrella *et al*., 2000; Dawn *et al.,* 2015). Different sections of this highly respected tree have been given a variety of medicinal qualities.

5.Hempseed -(Cannabis sativa L.)

Hempseed Hemp is a member of the Cannabinaceae family and is scientifically known as Cannabis sativa L. An annual-growing herbaceous plant, it has long been regarded as an essential source of food, fiber, medicine, and a hallucinogenic or holy substance.

The use of raw materials for fuel, textile garments, and oil drying in the painting industry led to the height of hemp production. Interest in hempseed as a food source increased because, when consumed regularly in its raw form or as a byproduct (such as oil and baked goods), this small plant entity was an abundant but underutilized source of nutrients that could help improve human nutritional and functional support.

Nutritional benefits:

Enzyme accessibility is crucial when evaluating the degree of protein digestion in food, which is impacted by the molecule's structure and other protein-related parts. The protein digestibility of dehulled hempseed ranged from 90.8% to 97.5%, depending on the source, and is nearly equivalent to casein.

Conclusion:

In conclusion, superfoods offer a wealth of nutritional benefits that contribute to overall health and well-being. These nutrient-dense foods, such as avocados, kefir, goji berries, moringa, and hempseed, provide essential vitamins, minerals, antioxidants, and bioactive compounds that

support healthy bodily functions. Avocados, rich in good fats and fiber, enhance satiety and diet quality while aiding in weight management. Kefir, with its probiotics and peptides, improves digestion, strengthens immunity, and offers potential antitumor and cholesterol-lowering benefits. Goji berries, celebrated for their high zeaxanthin content, promote eye health and demonstrate anticancer and immunostimulatory properties. Moringa oleifera, a versatile plant, provides numerous health benefits, including antioxidant, antibacterial, and anticancer effects, while serving as a vital nutritional source, especially in tropical regions. Hempseed, a highly digestible protein source, is rich in nutrients that support functional and nutritional health. Collectively, these superfoods have the potential to reduce the risk of chronic diseases such as obesity, cardiovascular diseases, diabetes, and cancer. By incorporating superfoods into daily diets, individuals can enhance their nutritional intake and promote long-term health. The diverse range of superfoods offers unique benefits, making them essential for a balanced and health-conscious lifestyle.

References:

1.Anwar, F., & Bhanger, M. I. (2003). Analytical characterization of Moringa Oleifera seed oil grown in temperate regions of Pakistan. Journal of Agricultural and Food Chemistry, 51, 6558–6563.

2. Anwar, F., Ashraf, M., & Bhanger, M. I. (2005). Inter provenance variation in the composition of Moringa oleifera oilseeds from Pakistan. Journal American Oil Chemist's Society, 82, 45–51.

3. Anwar, F., Latif, S., Ashraf, M., & Gilani, A. H. (2007). Moringa oleifera: A food plant with multiple medicinal uses. Phytotherapy Research, 21, 17–25.

4. Anwar, F., Latif, S., Ashraf, M., & Gilani, A. H. (2007). Moringa oleifera: a food plant with multiple

medicinal uses. Phytotherapy research, 21(1), 17-25..

5.Ahmad S.R., Gokulakrishnan P., Giriprasad R., Yatoo M.A., Fruit based natural antioxidants in meat and meat products: a review. Crit. Rev. Food Sci. Nutr., 2015, 55, 1503–1513.

6. Arumugam, T. (2017, November 26). Malaysians need to up intake of fruits and vegetables to battle obesity, diabetes: Subramaniam. New Straits Times. https://www.nst.com.my/news/nation/2017/11/307710/malaysians-need-intakefruits-and-vegetables-battle-obesity-diabetes.

7.Awodele, O., Oreagba, I. A., Odoma, S., da Silva, J. A. T., & Osunkalu, V. O. (2012). Toxicological
evaluation of the aqueous leaf extract of Moringa oleifera Lam.(Moringaceae). Journal of ethnopharmacology, 139(2), 330-336.

8. Barsby, J., Cowley, J., Leemaqz, S., Grieger, J., Mckeating, D., Perkins, A., Putnam Bastian, S., Burton, R., Bianco-Miotto, T., & Bastian, S. (2021). DOI: 10.7287/peerj.12525v0.2/reviews/3

9. By CHARALAMPOS PROESTOS Year: 2018 Container: Current Research in Nutrition and Food Science Journal Volume: 6 Issue: 3 Page: 576-593 DOI: 10.12944/crnfsj.6.3.02

10. Dawn, C. P., Ambrose, & Daunty, A. L. (2015). Moringa oleifera Mothers Best friend: An ideal health food. Beverage and Food World, 40(2), 33–34.

11. Dreher, M. L., & Davenport, A. J. (2013). Hass avocado composition and potential health effects. Critical Reviews in Food Science and Nutrition, 53(7), 738–750.

12. D'souza, J., & Kulkarni, A. R. (1993). Comparative studies on nutritive values of tender foliage of seedlings and mature plants of Maringa oleifera Lam. Journal of Economic and Taxonomic Botany, 17, 479–485.

13. Duarte, P. F., Chaves, M. A., Borges, C. D., & Mendonça, C. R. B. (2016). Avocado: Characteristics, health benefits, and uses. Ciência Rural, 46(4), 747–754.

14 .Estrella, C. P., Mantaring, J. B. V., Davis, G. Z., & Taup, M. A. (2000). A double-blind randomized controlled trial on the use of malunggay (Moringa oleifera) for augmentation on the volume of breast milk among non-nursing mothers of preterm infants. The Philippine Journal of Pediatrics, 49(1), 3–6.

15. Ford, N. A., & Liu, A. G. (2020). The forgotten fruit: A case for consuming avocado within the traditional Mediterranean diet. Frontiers Nutrition, 7.

16. Gan, L., Zhang, S. H., Liang Yang, X., & Bi Xu, H. (2004). Immunomodulation and antitumor activity by a polysaccharide-protein complex from Lycium barbarum. International Immunopharmacology, 4, 563–569.

17. Gupta, Singhal, Singh, Chauhan, & Kumar. (2018). Nutritional and pharmaceutical benefits of avocado plant. Journal of Advanced Scientific Research, 9(2), 4–11.

18.Hęś M., Jeżewska M., Szymandera–Buszka K., Gramza--Michałowska A., Effect of antioxidant additives on nutritive value of dried meat. Zyw. Nauka Technol. Jakosc., 2011, 5, 94–106.

19. Kmiecik D., Korczak J., Rudzińska M., Gramza-Michałowska A., Hęś M., Kobus-Cisowska J., Stabilization of phytosterols by natural and synthetic antioxidants in high temperature conditions. Food Chem., 2015, 173, 966–971.

20 .Malaysian Dietary Guidelines. (2010). Key Message 5, Eat plenty of fruits and vegetables everyday. Ministry of Health, Malaysia. https://www.moh.gov.my/moh/images/gallery/Garispanduan/diet/km5.pdf

21. . Ozumba, N. A. (2011). Moringa Oleifera: Nigeria's evergreen gold. PaxHerbal Magazine, 6, 7–9.

22. . Prestos', C. (2018). Superfoods: Recent data on their role in the prevention of diseases. Current Research in Nutrition and Food Science, 6(3), 576–593. DOI: 10.12944/crnfsj.6.3.02.

23. Sreelatha, S., Jeyachitra, A., & Padma, P. R. (2011). Antiproliferation and induction of apoptosis by Moringa oleifera leaf extract on human cancer cells. Food and Chemical Toxicology, 49(6), 1270-
1275.

24. .Weschenfelder, C., Santos, D., Souza, P., Campos, V., & Marcadenti, A. (2015). Avocado and cardiovascular health. Open Journal of Endocrine and Metabolic Diseases, 5, 77–83.

25.. Zhang, M., Chen, H., Huang, J., Li, Z., Zhu, C., & Zhang, S. (2005). Effect of Lycium barbarum polysaccharide on human hepatoma QGY7703 cells: Inhibition of proliferation and induction of apoptosis. Life Sciences, 76, 2115–2124.