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Nutritional profile, medicinal properties and growing businesses of *Moringa oleifera:* A review

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Abstract
Moringa Oleifera also known as the 'Miracle Tree' is a storehouse of nutrients and beneficial bioactive compounds. The importance of this plant has been mentioned in ancient Indian and African literature. In last few decades, public interest in Moringa oleifera has skyrocketed. Every part of this plant can be used for different purposes, but especially leaves and pods are used in India in the form of curry. The powder of dried leaves is reckoned to have higher vitamin C than oranges, higher retinol than carrots, much higher calcium than milk, and higher protein than yogurt. The plant consists of an array of phytochemicals that not only prevent, but also help in curing certain diseases, like sexually transmitted diseases and many skin infections. However, some toxic effects have been noticed after regular consumption of Moringa but the doses far exceeded the amount that people generally use. Many bioactive compounds found in moringa have been found to be helpful in treatment of various maladies. People are now noticing these qualities of moringa and many businesses are thriving. Not only health but Moringa is also improving the financial condition of many people. This work briefs the morphology, nutritional composition, phytochemicals, toxicological parameters, health benefits, and contribution of moringa in Indian economy.

Keywords: *Moringa oleifera*, nutritional composition, medicinal properties, phytochemicals, and emerging business

Introduction
Moringa Oleifera, also called as 'Miracle Tree', is a native of the Sub-Himalayan region and cultivated worldwide. The tree is commonly known by names such as 'Drumstick' and 'Horseradish tree'. In African languages, it is dubbed as '*Nebedaye*', which means something that never dies. The fabulous drought resistance property of the tree has earned it this name of "never-dying tree". It is a deciduous plant of the *Moringaceae* family belonging to the genus Moringa. Moringa is a treasure of nutrients, comprising a rich composition of macronutrients, including proteins, carbohydrates, and lipids, alongside a diverse array of secondary metabolites, making it an attractive agricultural commodity for various applications.

Table 1: Common names of *Moringa oleifera* in different languages

Language	Name of *Moringa oleifera*
English	Drumstick, Horseradish
Hindi	*Sahjan, Munga*
Sanskrit	*Shigru, Shobhanjana*
Gujarati	*Saragwani sing*
Telugu	*Munagakaya*
Bengali	*Shojne*
Tamil	*Murungai*
Malayalam	*Murinna, sigru*
Urdu	*Sahajana*
Kannada	*Nugge*
Chinese	*La ken*
Thai	*Marum*
Indonesian	*Daun Kelor*

Moringa is known for its extraordinary nutritional composition, packed with vitamins and minerals that surpass those found in many staple foods. Many studies have found that its nutrient profile includes seven times more vitamin C than oranges, 10 times more vitamin A than carrots, 17 times more calcium than milk, nine times more protein than yogurt, 15 times more potassium than bananas, and 25 times more iron than spinach. Also, moringa is a good source of calcium, essential for human development, with its leaves providing 1000 mg per serving – far exceeding the 300-400 mg found in 240 ml of milk. Moringa powder takes it a step further, delivering over 4000mg, making it a potential natural remedy for supporting bone health. Moringa powder can be used as an alternative to iron supplements for treating anemia, providing 28mg of iron compared to just 2 mg in beef. The plant is also a rich source of zinc, an essential mineral crucial for sperm cell synthesis, growth, and nucleic acid synthesis, with its leaves containing 25.5-31.03 mg/kg which meets the recommended daily intake for a healthy diet (Brar *et al*., 2022) [11].

Lowell Fuglie (2001) [42] is an International Development Consultant and amongst the world's leading experts in the multiple attributes of the moringa tree, has said, "A major advantage to Moringa is the fact that it is a local resource. This contrasts with many of the ongoing programs designed to fight malnutrition, which depend on imported products and outside support. Moringa is a very simple and readily available solution to the problem of malnutrition." According to a report by Fuglie, Moringa powder helped a mother to produce milk for her newborn. Many adults reported getting less tired and many said they could sleep better after consumption of *Moringa oleifera* in different forms.

Moringa oleifera has been employed for centuries in traditional medicine and has demonstrated pharmacological efficacy in managing diverse health conditions. Moringa oleifera called as *Shigru* in Sanskrit has a description in Charak Samhita for being used in Lepa (paste), Taila (oil), and *Churna* (powder) forms for treatment of *Kushtha*, *Krimi* and *Pliha* (spleen enlargement). *Shigru* is believed to relieve pain and inflammation in piles. The roots of the plant possess phytochemicals useful for the treatment of kidney stones. It was also mentioned in the remedy for edema. Moringa oil has been reported to exhibit anti-aging properties due to its excellent antioxidant properties. The seed extract has been reported to have antibacterial and antifungal activities; therefore, the plant found application in the healing of wounds. Local people in Indonesia believe that soup made by boiling Moringa pods can reduce cholesterol, soreness, and be helpful in skin care (Afrianto *et al.,* 2023) [4].

Fig 1: *Moringa oleifera* leaves

The nutritional composition of moringa leaves and seeds as reported by various researchers have been provided in Tables 2, 3, 4, and 5.

Table 2: Nutritional composition of dried moringa leaves (Values in g/100 g)

Sources	Moisture	Protein	Fat	Crude fibre	Ash	Carbohydrate
Charles *et al*. (2011)	4.9	20.6	16.9	12.3	9.1	36.6
Anthonia (2012)	11.76	16.15	6.35	9.68	10.64	45.43
Gopalkrishnan *et al*. (2016)	-	29.4	5.2	12.5	8.5	41.2
Meireles *et al*. (2020) [51]	7	24	6	20.6	-	36
Sultana (2020) [65]	8.13	24.04	5.75	7.34	9.34	45.52
Zahidul *et al*. (2021)	-	27.1	2.3	19.2	12.2	38.2
Penalver *et al*. (2022) [59]	7.23	25.3	5.75	24.97	9.95	29.8

Table 3: Nutritional composition of dried moringa seeds (values in g/100g)

Source	Moisture	Protein	Fat	Crude fibre	Ash	Carbohydrate
Gopalkrishnan *et al*. (2016)	-	35.97	38.67	2.87	-	8.67
Mbah *et al*. (2012) [50]	6.78	26.71	30.59	1.41	2.55	31.96
Abiodun *et al*. (2012) [13]	4.7	28.04	45.8	7.73	4.10	10.59
Bridgemohan *et al*. (2014) [12]	5	37	38	3	4	-
Gautier *et al*. (2022) [23]	4.74	36.82	37.24	-	-	-
Abdalla *et al*. (2022) [1]	-	24	36	-	6.3	33.6

Table 4: Micronutrient composition in dried moringa leaves (values in mg/100g)

Micro-nutrient	Charles *et al.* (2011)	Gopalakrishnan *et al.* (2016) [25]	Sultana *et al.* (2020) [65]	Meireles *et al.* (2020) [51]	Zahidul *et al.* (2021)	Penalver *et al.* (2022) [59]
Calcium	1460	2003	1850	1897	2003	1480
Magnesium	267	368	-	473	368	301.11
Potassium	308	1324	1630	1467	1324	1750
Phosphorous	56.0	204	213	297	204	352.39
Sodium	20	-	-	-	-	-
Iron	31.1	28.2	-	32	28.2	25.14
Sulphur	-	870 µg	-	-	-	982.49µg

Copper	-	0.57	-	-	-	0.45
Vitamin A	-	-	-	3.64	-	-
Vitamin C	-	173	216	172	173	-
Vitamin E	-	113	-	56-113	113	-
Vitamin B1	-	2.64	-	2.6	2.64	-
Vitamin B2	-	20.5	-	1.29	20.5	-
Vitamin B3	-	8.2	-	8.2	8.2	-
Vitamin B6	-	2.4	-	2.4	2.4	-

Table 5: Micronutrients composition in dried moringa seeds (values in mg/100 g)

Micro-nutrient	Abiodun *et al.* (2012) [3]	Gopalakrishnan *et al.* (2016) [25]	Zahidul *et al.* (2021)	Gautier *et al.* (2022) [23]	Abdalla *et al.* (2022) [1]
Calcium	203.85	45	45	139.64	3.6%
Phosphorous	-	75	75	771.19	0.52%
Potassium	479	-	-	763.49	0.87%
Magnesium	220	635	635	302.51	-
Iron	31.03	-	-	9.97	-
Zinc	8.08	-	-	5.2	-
Sodium	-	0.05	-	6.82	-

Morphology

Horseradish tree is a monogenous plant with an average height of 10-12 meters and a 20-24 cm diameter. The wood is considered weak in terms of strength. The tree has silvery white coloured bark, green tripinnate leaves, white flowers grouped in axillary panicles and fruits in the form of long 15-40 cm trifoliate pods. Seeds are trivalent with longitudinal wings either green, white or black, depending on variety. The average lifespan of this perennial plant is about 20 years if taken care of properly. Loamy and well-drained sandy soils facilitate the growth of the plant. The trunk commonly grows straight but the twigs can be randomly grown with an umbrella-shaped canopy. A single tree can produce 15-25 thousand seeds per year.

Table 6: Taxonomical classification of Moringa

Kingdom	Plantae
Class	Magnoliopsida
Order	Capparales
Family	*Moringaceae*
Genus	*Moringa*
Species	*M. oleifera.*

Phytochemicals in *Moringa Oleifera*

The phytochemicals present in different parts of this plant possess many medicinal properties. About 110 bioactive compounds have been found in studies. Along with the rich nutritive profile, moringa is loaded with phytonutrients that not only can prevent but also suppress the risk of diseases. The compounds can be categorised into 6 groups, which include flavonoids, glucosinolates, phenolic acids, terpenes, alkaloids, and sterols. Some dominant compounds are moringin, niazimicin, beta-sitosterol, quercetin, etc.

Alkaloids: There are a lot of papers that conclude that alkaloids in *moringa oleifera* have shown anti-inflammatory and antioxidant activity, thus resulting in reduced risk of oxidative stress and organ damages. Alkaloids have been reported to help cure diabetes, cardiovascular diseases and cancer. A recent study by Ofulue *et al.* (2024) [56] found that alkaloids in Moringa leaf extract inhibit sudden contractions and consist of compounds that hold the ability to interact with receptors and proteins linked with uterine contractions, which makes it a potential tocolytic agent.

Saponins: Saponin is derived from the Latin word “Sapo”, which means soap, due to its ability to produce froth by agitation in an aqueous solution. Malaka and Sadam in 2024 [45] worked on an herbal spray made with Moringa oleifera and betel leaf extract, and they found that saponins act as natural antioxidants and inhibit the free radicals from damaging skin and organs, which makes it a good option to be used in the wound healing spray for faster healing. Jiang *et al.* (2024) found that saponins are foodborne natural bioactive compounds that can prevent cardiovascular diseases. Saponins can have a beneficial effect against obesity (Marrelli *et al*., 2016) [47].

Tannins: Malaka and Sadam (2024) [45] worked on an herbal spray made with Moringa oleifera and betel leaf extract, and they found that the higher the tannin content in the treatment of wounds, the faster the wound healing process. Kumari and Jain (2012) [40] suggested that tannins can be potential drugs for the treatment of non-insulin-dependent diabetes mellitus. Tannins act as chelating agents; thus, they help to mitigate oxidative damage in biological systems, and they also possess antimicrobial, anticancer, and antioxidant properties despite being an antinutrient (Cosme *et al*., 2025) [18]. Sulaiman *et al.* (2015) [64] found that Moringa seed extract contains 0.890 mg Gallic acid equivalent tannins per gram of dry matter, which plays a significant role in the antioxidant property of seeds.

Polyphenols: According to Prabakaran *et al.* (2018), polyphenols refer to a diverse group of bioactive compounds. The major polyphenolic compounds in Moringa include quercetin, myricetin, and biochanin, which are reported to show antioxidant and antimicrobial properties along with an important role in many biological activities.

Flavonoids: Lin *et al*. (2018) [41] suggested that flavonoids in Moringa can be used in the treatment of Non-Communicable Diseases like cancer, diabetes, etc. Ballard *et al*. (2019) found that flavonoids possess many health-protective properties, such as anti-cancer, anti-diabetic, anti-obesity, and many more.

Pharmacological Properties

Anti-inflammatory effect: Studies have found that *Moringa oleifera* extract from any part of the plant has been observed to exhibit analgesic, anti-inflammatory, and antipyretic activities. Inflammation refers to the response of our body to any foreign object or exercise. Usually, it is normal but it can get severe in some conditions, to the extent of harming the body. Moringa extract has been found to control these reactions from harming the body (Kumar *et al*., 2010) [39].

Anti-cancer effect

The anticancer activity of Moringa can be attributed to the presence of alkaloids in various parts of the plant body. Studies conducted for the assessment of antitumor activity revealed positive results. The water extracts of leaves have shown activity in the treatment of lung cancer, oral, liver, and pancreatic cancer, while the methanolic extract can work against prostate and cervical cancer (Bhattacharya *et al*., 2018) [10].

Anti-ulcer effect

Moringa contains many triterpenes, alkaloids, flavonoids, and other chemical constituents such as steroids, responsible for the antiulcer properties, which work via cytoprotective and antisecretory action in the stomach. During experiments, it was found that the ethanolic extracts of seeds of moringa contained the flavonoid quercetin, which showed an antiulcer effect by decreasing the acidity of pylorus ligation in rats with induced ulcer and decreasing the ulcer index anti-oxidant property (Dixit *et al*., 2016) [21].

Hepatoprotective activity

Moringa contains a special group of chemicals known as Niazimicin, benzyl isothiocyanate, glucosinolates, isothiocyanate, and several other compounds such as provitamin A, rhamnose, and simple sugars contributing to its hepatoprotective properties (Camilleri and Blundell, 2024) [15].

Neuroprotective property

Moringa oleifera is getting more attention these days as a neuroprotectant plant. The bioactive compounds present in it improve mitochondrial function and reduce oxidative stress. The antioxidant and anti-inflammatory properties of Moringa contribute to its neuroprotective properties.

Cardioprotective activity

Studies have revealed that Moringa extract can be used in the treatment of diseases related to the heart and cardiovascular system. As Moringa is also considered helpful in regulating blood pressure levels, it is a potential affordable treatment for problems arising with reduced or elevated blood pressure.

Anti-asthmatic property

Suresh *et al*. (2020) [66] concluded that the extract of Moringa leaves showed beneficial effects against bronchoconstriction, inflammation in the airway, and asthma. Kumar and Patel (2011) [38] found that Moringa possesses significant anti-asthmatic properties, which can be attributed to its bronchodialator activity, non-specific spasmolytic activity, and cell stabilizing activity.

Anti-diabetic property

A study conducted in Africa found that people, who treat diabetes with the help of natural sources like medicinal plants, incorporate *Moringa oleifera* with the other plants. The traditional practitioners there believe that Moringa plays a significant role in the curing of diabetes, and hence it can be a relief to people who are unable to afford the expensive treatments. A study was conducted to check on the comparative antidiabetic properties of Moringa-based diabetes tablets and raw Moringa extract, which revealed they both reduced blood glucose levels when administered 400mg/kg (Fatoumata *et al*., 2020) [22].

Anthelmintic effect

Anthelmintic refers to a drug that is used to kill or expel helminths (parasitic worms) from the body. A study by Delfin *et al*. (2017) revealed that Moringa seed showed 95.89% and 81.72% egg hatch inhibition at 15.6 mg/mL for ethanolic and aqueous extract, respectively. Therefore, Moringa seed holds potential anthelmintic property against the egg and 3rd stage of larvae of *Haemonchus contortus*.

Studies on Toxicological Parameters of Moringa

Owens *et al.* (2020) [58] found that the use of *Moringa oleifera* could decrease blood sugar to even lower levels when used in combination with other modern medications.

Stem, root, and flowers potentially contain harmful phytochemicals, which may promote uterine contraction, leading to miscarriages in pregnant women. However, all mentioned side effects were verified with doses that far exceed the amount used in food intake (Asare *et al*., 2012) [8].

So, research on the adverse effects of doses that may be taken should still go on, since there are no scientifically confirmed, clear toxic and harmful effects of Moringa extracts and products on both humans and animals.

Uses of Moringa

Seed extract as a coagulant

Camacho *et al*. (2017) [17] suggested that Moringa can be used as a natural coagulant for the removal of organic matter and cyanobacteria from water. The extract of Moringa in combination with 1M NaCl showed the best results for the removal of turbidity and aromatic organic compounds. Amagloh *et al.* (2009) [5] in their study found that powder of Moringa seed kernel showed coagulation properties like alum at a concentration of 10 g/L for the purification of water. So, the combination of Moringa powder and alum can be used for coagulation.

Food

Moringa has been used as food for ages in various forms, including curry, an ingredient in some other preparations, and toasted seeds as a snack. Gautier *et al.* (2022) [23] studied about toasted kernels, Moringa beverage 10% (w/v), and Moringa yogurt-like 40% (w/v), which gave promising results for future use. Shelke and Wagh (2024) mentioned the use of Moringa leaves as *Bhaji*, pods in curry and *Sambhar*, and flowers for culinary purposes in India and the African region. Milla *et al.* (2021) discussed about the incorporation of Moringa powder in various bakery products like biscuits, cakes, bread, and muffins, etc. and their consumer acceptance. The involvement of moringa significantly increased the protein content of baked products, but its incorporation induced a mild bitter taste in them.

Supplement

Many studies support the use of *Moringa oleifera* as a food supplement due to the presence of a diverse array of bioactive compounds in it, which help in regular metabolic functions and also suppress or cure many health issues arising due to oxidative stress and chemical imbalance in the body. The research revealed the antioxidant, anticancer, antidiabetic, and anti-inflammatory effects of Moringa, which is why the Moringa leaf powder or Whole Moringa powder is used by many people as a supplement. People reported that the use of Moringa powder increased milk secretion in lactating mothers, improved haemoglobin level in blood, and helped with sound sleep (Martinez *et al*., 2021; Brar *et al.,* 2022) [59, 11].

Medicine

Mohlala *et al*. (2023) [54] found in a study that a diet with 15% Moringa leaf extract increased sperm motility in bulls. Moringa was found to reduce the causes of infertility in men like oxidative stress and obesity, etc. Kaul and Chase (2015) [37] found in their study that Moringa leaves contain Niazirin and Niazimicin A and B, which help in regulating blood pressure and have antitumor and hypotensive activity. Stem of Moringa contains β-sitosterol, which possesses anticancer activity. Seeds and pods contain a wide range of compounds like Niazimicin, β-sitosterol, 4(α-L rhamnosyloxy) benzyl isothiocynate, and others, which offer many benefits including antitumor, antibacterial, anticancer and hypotensive activity.

Fodder

A study by Bryan Mendieta (2011) [13] suggested that Moringa can be used as a fodder crop for dairy cows. Feeding Moringa enhanced the digestibility of the animals, although it did not show any impact on the amount or composition of milk produced by them. Mallenakuppe *et al*. (2019) found that Moringa is used as feed material for many livestock, poultry, and fish. Feeding Moringa improves the meat quality and storage ability of products.

Contribution of Moringa to the Economy of India

India is the largest producer of Moringa in the world. A report by Fortune Business Insights in February 2020 states that the global market for *Moringa oleifera* products was 7.08 billion USD in 2020 and is expected to grow to 14.8 billion USD in 2028 at a CAGR of 9.63%. Key companies focusing on introducing innovative health-promoting products are Botanica Natural Products, Organic India, Himalaya Global Holdings Ltd., Earth Expo Company, Aayuritz Phytonotrients Private Ltd., etc.

In March 2020, Typhoo Tea Ltd. -A UK-based tea manufacturer company launched three new herbal teas in India, one of which is 'purifying super greens', which contains organic moringa and a blend of other ingredients to offer holistic purifying benefits.

'Genera Nutrients' is an Indian company started in 2010. One of their reports on 6th December 2023 says that they produce nutraceuticals and herbal products of *Tulsi, Ashwagandha, Neem,* and *Moringa oleifera,* etc. They farm in a land area of three acres. The article also reported that there is an increase in demand for Moringa seeds among customers.

An article 'India commences exports of Moringa powder, keeping in mind the rising global demand, because of its nutritional properties' by the Ministry of Commerce and Industry, posted on 31 December 2020 by PIB Delhi, reported that 2 Tonnes of organic certified Moringa powder was exported to the US on 29th December 2020. An APEDA registered exporter from Telangana, 'Medikonda Nutrients' cultivates Moringa in 240 ha of land and plans to export 40 Metric Tons of Moringa leaf powder to the USA.

An article by Shivani Gupta in 'The Better India' reports on a farmer who left his job for a healthy life. After working 11 years at Tata Consultancy Services, techie Jitender Mann moved back to his village, Mehmudpur, in Sonipat district of Haryana. He came to know about the healing properties of Moringa, and along with his wife he decided to become farmers. They started in 2018, and now they have developed a profitable venture by selling Moringa powder in urban areas. According to them, 1000 kg of powder can be obtained from one acre of land. On an average, they make 10 L per acre every season.

Another article in 'The Better India' by Mervin Preethi covers the story of Ponnarasi, a lady called *Murungai Arasi,* which means Moringa Queen. She is a class 10 dropouts who is generating Rs 12 lakh/year by farming Moringa and selling both raw as well as value-added products. Ponnarasi said that the Agricultural colleges and KVKs of Tamil Nadu helped her in developing the business.

Yet another article in 'The Better India' is based on the success story of a soil scientist, Dr. Kandasami Saravanan cultivates *moringa oleifera* in 4 acres of land. He said, 'Selling drumsticks was not profitable, so I came up with the idea of selling leaves, as they hold a higher value in the international market'. He processes the leaves in value-added products like Moringa *podi*, leaf soup, and powder. He earns a net profit of 40000 every month with leaves only and even more with value-added products.

One more article published in 'The Better India' about Deepika Ravi from Karur, Tamil Nadu. She owns a startup, 'The Good Leaf' (founded in 2018), where 200 farmers are suppliers. Along with edible products, the company also offers haircare and skin care products of moringa, like Brightening serum, Face pack, Face scrub, and Soap, all made with moringa. The business now has crores of worth.

In the series of start-ups, another name came forward, which was 'Doctor Moringa', founded by Dr. Kamini Singh in 2019, is a health and wellness brand dedicated to offering moringa-based products. Doctor Moringa offers products like moringa capsules, tablets, powder, soaps, hair oils, pain-relieving oils, and teas. The products claim to offer benefits like tackling arthritis pain, malnutrition, acne, and weak immunity. In FY24, the brand achieved an annual revenue of Rs 1.5 crore, and it aims to close FY25 with Rs 2 crores. There are endless stories like these, as people are getting aware of the capabilities of *Moringa oleifera*. The growing popularity of Moringa shows that it is yet to achieve its peak in terms of business. This superfood is not only thriving in businesses but also helping people get healthier lives. While all these businesses were majorly based on leaves, the seeds of moringa are unexploited. The seeds also have an impressive profile of phytochemicals, which hold great potential to be used for various purposes, even in the form of snacks and other food preparations.

Value Addition from Moringa

There are lots of value added products from moringa given in Table 7.

Table 7: Value-added products of Moringa

Product	Image	Cost	Holder of the product
Moringa leaf powder		Rs 108/100g	Saptamveda https://saptamveda.com
Moringa seed powder		Rs 160/200g	Agri club https://agrriclub.in
Moringa seed oil		Rs 539/100ml	The good leaf https://thegoodleaf.in
Herbal tea		Rs 249/25 sachet	Doctor moringa https://doctormoringa.in
Mosquito repellent spray		Rs 349/100ml	Doctor moringa https://doctormoringa.in
Moringa tablets		Rs 399/60 tablet	Doctor moringa https://doctormoringa.in
Gond moringa		Rs 1600/100g	Atiya herbs https://www.atiyaherbs.com
Cashew and Moringa soup		Rs 255/100g	Simplify foods https://simplifyfoods.com

Moringa oil butter		Rs 1190/60ml	Botanical beauty https://www.botanicalbeautyproducts.com

Conclusion

The cumulative evidence from existing studies underscores the remarkable nutritional and phytochemical profile of *Moringa oleifera*, which is responsible for its notable medicinal properties. Along with the extraordinary nutritional composition, which can help combat malnutrition while maintaining sustainability, this plant has also been found to possess a unique combination of bioactive compounds that make it an attractive candidate for the treatment and management of various chronic diseases? The traditional knowledge surrounding the use of Moringa as a nutraceutical plant has been substantiated by scientific research, providing a strong foundation for its potential benefits. However, to fully harness the therapeutic potential of Moringa and ensure its safe consumption, additional research is required to comprehensively understand its biological activity and to identify any potential side effects associated with regular use. This will enable the development of evidence-based guidelines for the optimal utilization of Moringa as a nutraceutical plant. Given its remarkable nutritive and medicinal value, Moringa has the potential to serve as a natural adjunct to conventional therapies, promoting public health and offering alternative treatment options for various diseases.

Future Prospects

The acknowledgement of the properties of Moringa implies its promising future. The research done till date and the ongoing studies are all in the direction of beneficial effects of Moringa, even the studies on toxicology have led to results which ensure no toxic effects up to levels of normal human consumption. The pharmacological properties of Moringa can be utilised for the prevention and treatment of many maladies. The rich antioxidant property can be useful for the formulation of effective beauty products. The leaf and seeds can be used to prepare more varieties of food products, along with incorporation in other pre-existing products. The future of Moringa is shining bright, and it holds immense possibilities for businesses. The coagulating property of seeds has gained attention due to its effectiveness as well as they can be used for the production of biodiesel and in cosmetics. Keeping the capabilities of Moringa in mind, it should be incorporated as much as possible in meals and diets in freshly cooked form and for those who are unable to consume freshly cooked foods often, it should be formulated in different ways to ensure its availability to most of the people in any possible form in affordable prices.

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