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The Medicinal, Herbal and Ayurvedic Plant: *Moringa oleifera* (Drumstick Plant)



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ABSTRACT

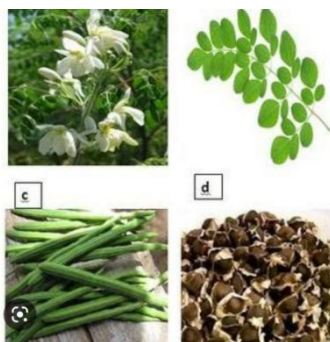
Moringa oleifera plant commonly available in India, its wild source rarely but cultivated in everywhere in India. Its total part like leaf, fruit, seed, stem very useful in many ailments. the potentials of moringa tree to combat the duo of poverty and hunger remain unassailable. However, the low levels of awareness of the inherent benefits of the plants have challenged the level of its cultivation in some parts of Nepal. Other challenges to the cultivation of the plant include uncertainty of markets, inadequate knowledge about its cultivation and uses. The proper use of moringa tree solve a lot of problems arising from nutrition, health and general well being of the masses and conserve the foreign exchange which is presently used in the importation of synthetic vitamins and mineral, putrefying chemicals, convectional drugs, body and hair care products, and make more funds available for rural development programme. All rural farmers need to be encouraged to embark in planting of moringa tree for their empowerment. The government should launch various programmes by providing trainings and other resources for the resource poor rural farmers, assist them in harvesting and processing, and pay them according to their yield. This form of empowerment will reduce poverty in the line and make moringa tree available for every household. Lastly, agricultural extension and advisory services can play a big role in meeting the challenges and assisting rural farmers harness the enormous opportunities in the production and usage of moringa tree. Hence, moringa tree will turn to be one of the most potential cash crop in the context of developing country like Nepal.



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INTRODUCTION:-



(26)

- In Marathi, it is called Shevga.
- In Malayalam, it is known as Muringa,
- In Tamil, the tree is called Murungai Maram.
- In Kannada, it is known as Nuggekayee.
- In Telugu, it is known as Munagachettu.
- In Konkani, it is called Mushinga Saang.
- In Sinhalese, it is called Murunga.
- In Gujarati, it is called Saragvo.
- In Hausa language, it is called Zogale.
- In Oriya, it is called Sajana or Sujuna.
- In Nicaragua, the plant is referred to as Marango.
- In Bengali, it is called Sojne danta.
- In Assamese, it is called Sojina.
- In Punjabi, it is called Surajana.
- In Hindi, it is called sahjan.
- In Nepali, it is known as Sajiwan or Swejan.

- In Guyana, it is called Sijan.
- In Thai, it is called "ma rum".
- In Haiti, the Moringa is called the benzolive (or benzolivier).
- In Indonesian, the Moringa is called kelor (kalor in Malay).
- In Tulu, it is known as Noorggae.
- In Javanese, it is called limaran.
- In Mooré (Burkina Faso), it is called "Arzan Tiiga," which means "tree of paradise".
- In Dioula (Côte D'Ivoire), it is called "Arjanayiiri".(26,27,28).

Scientific classification:-

- Kingdom- *Plantae*
- Order – *Brassicales*
- Family – *Moringaceae*
- Genus – *Moringa*
- Species – *M. oleifera*^(23,24,25)



Pests and diseases:-

Moringa tree is not affected by any serious diseases. In India, the caterpillars mostly affect the moringa species which include the caterpillars such as bark eating caterpillar, hairy caterpillar, green leaf caterpillar etc. The Moringa plant shows the symptom of defoliation (losing its leaves) due to the budworm (noctuid). Moringa serves as a host for *Leveillula taurica* causing a fungal disease called powdery mildew. Damaging agents also include aphids, fruitflies, stem borers and termites (in some regions). Hence cultivation management should therefore be checked.

Nutrients:-

NUTRITIONAL VALUE PER 100gm

Energy (270kj)	64kcal
Carbohydrates	8.28g
Dietary fiber	2.0g
Fat	1.40g
Protein	9.40g

(23,24,25)

Vitamin:-

Vitamin A	378µg (47%)
Thiamine (B1)	0.257mg (22%)
Riboflavin (B2)	0.660mg (55%)
Niacin (B3)	2.220mg (15%)
Pantothenic acid (B5)	0.125mg (3%)
Vitamin (B6)	1.200mg (92%)
Folate (B9)	40µg (10%)
Vitamin C	51.7mg (62%)

Moringa has many edible parts, with regional uses varying widely: —

Immature seed pods, drum sticks.

— Leaves.

— Mature seeds.

— Oil pressed from seeds

. → Flowers. (23,24,25)

Nutritional values of leaves:-

In *Moringa oleifera* leaves are the most nutritious part. It acts as major source for b- vitamins, vitamin-c, provitamina as beta carotene, vitamin-k, manganese and proteins. When compared to the other leaves, the leaves of *Moringa oleifera* has high contents of nutrients. The leaves are cooked and used like spinach, dried and crushed into a powder used in soups and sauces. Nutritional content of 100 gm. Of fresh *Moringa oleifera* is as tabled. (24, 25, 26)

MINERALS:-

Calcium	185mg (19%)
Iron	4.00mg (31%)
Magnesium	147mg (41%)
Manganese	0.36mg (17%)
Phosphorus	112mg (16%)
Potassium	337mg (7%)
Sodium	9mg (1%)
Zinc	0.6mg (6%)

OTHER CONSTITUENTS:-

Water	78.66g
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UNITS:-

µg = micrograms,	mg = milligrams
g = grams	

Culinary uses:-

Moringa has numerous applications in cooking throughout its regional distribution. Leaves of moringa are fried and mixed with tuna chips, onions and dried chilies. This is equivalent to sambal and eaten along with rice and curry. Leaves of moringa can also use in the preparation

of soup and eaten especially for breakfast during ramzan. Moringa is common ingredient in an omelet. Moringa leaves are commonly added to broth as a simple soup. This leaves can also be used as a typical ingredient in tinola, a traditional chicken dish consisting of chicken in a broth, moringa leaves, and either green papaya or another vegetable or in the all vegetable dish known as Utan. These moringa leaves are processed with olive oil and salt for a pasta sauce. Moringa juice may be mixed with lemonsito juice to make ice candies or cold drinks. In Indonesia the leaves are commonly used in a clear vegetable soup, with corn, spinach and coconut milk.

Traditional uses:-

Extracts from leaves contain low contents of polyphenols which are under basic research for their potential properties. Biological properties of moringa components, there are high quality studies on humans to justify its uses to treat human diseases.

Other uses:-

Moringa oleifera leaf powder used as effective soap for hand wash. It is used as an antiseptic. Oil from moringa seeds are used in foods and in hair care products and as a machine lubricant. Moringa is used in India and Africa in feeding programs to fight malnutrition. It is used as an aphrodisiac, boosts immune system. It is used to treat rheumatism, asthma, cancer, constipation. Used in the treatment of epilepsy, intestinal ulcers, bacterial, fungal, viral and parasitic infection (20,21,22,23).

Conclusion:-

Moringa oleifera plant commonly available in India, its wild source rarely but cultivated in everywhere in India. Its total part like leaf, fruit, seed, stem very useful in many ailments. the potentials of moringa tree to combat the duo of poverty and hunger remain unassailable. However, the low levels of awareness of the inherent benefits of the plants have challenged the level of its cultivation in some parts of Nepal. Other challenges to the cultivation of the plant include uncertainty of markets, inadequate knowledge about its cultivation and uses. The proper use of moringa tree solve a lot of problems arising from nutrition, health and general well being of the masses and conserve the foreign exchange which is presently used in the importation of synthetic vitamins and mineral, putrefying chemicals, convectional drugs, body and hair care products, and make more funds available for rural development programme. All rural farmers need to be encouraged to embark in planting of moringa tree

for their empowerment. The government should launch various programmes by providing trainings and other resources for the resource poor rural farmers, assist them in harvesting and processing, and pay them according to their yield. This form of empowerment will reduce poverty in the line and make moringa tree available for every household. Lastly, agricultural extension and advisory services can play a big role in meeting the challenges and assisting rural farmers harness the enormous opportunities in the production and usage of moringa tree. Hence, moringa tree will turn to be one of the most potential cash crop in the context of developing country like Nepal.(7,8,9,10)

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