

Pan-India Project to Re-integrate Moringa Into College Diet on a Weekly Basis

By Krishna Mckenzie



The moringa tree (*Moringa oleifera*), also known as the drumstick tree, is a fast-growing and drought resistant tree that is native to South Asia. It has long been recognized for its nutritional and medicinal properties, and is now considered to be a "superfood" by the United Nations Educational, Scientific and Cultural Organization (UNESCO). UNESCO's recognition of moringa as a superfood is a welcome step towards ensuring that this incredible plant is accessible to the millions of people who need it most.

Moringa is an incredibly nutrient-dense food, containing over 90 nutrients, including vitamins, antioxidants and amino acids. It is a particularly good source of vitamin A, vitamin C, calcium, potassium and iron.

Moringa is a versatile food that can be eaten in many different ways. The leaves can be eaten raw, cooked, or dried and powdered. They can be used in salads, smoothies, soups, and stews. The pods can be eaten fresh or dried and used as a vegetable. The seeds can be roasted and eaten as a snack or ground into a powder that can be used in smoothies, teas, or baked goods.

The moringa tree is important for a number of reasons, including:

- **Nutrition:** Moringa is one of the most nutritious plants on the planet. It is a good source of protein, vitamins, minerals, and antioxidants. Moringa leaves, in particular, are a good source of vitamins A, C, and E, as well as calcium, iron, and potassium.
- **Medicine:** Moringa has been used in traditional medicine for centuries to treat a variety of conditions, including asthma, diabetes, high blood pressure, and skin problems. Some scientific research has supported some of these traditional uses. For example, moringa has been shown to have anti-inflammatory and antioxidant properties, and it may help to lower cholesterol and blood sugar levels.
- **Food security:** Moringa is a drought-tolerant plant that can be grown in a variety of climates. It is also a fast-growing tree, which means that it can produce food quickly. Moringa is therefore an important food source for people in developing countries, especially during times of drought or famine.
- **Environmental benefits:** Moringa trees can help to improve soil quality and prevent erosion. They also provide food and shelter for wildlife.

Overall, the moringa tree is a highly significant plant in Indian culture. It is a part of Indian cuisine from Tamil Nadu to Uttar Pradesh. However largely it has been forgotten. By highlighting the multiple values of moringa and reintegrating them into the diet of every college in India for just once a week would create a revolution not only nutritionally and ecologically but would also create aware and respect of our cultural nutritional heritage in India. By inspiring every college to eat moringa spinach once a week we are fostering a collective value from north to south a common cultural reference, a common collective identity.



These are the ways in which the moringa tree can be integrated in colleges in India:

- **Moringa tree can be planted throughout campuses.**

Students can be engaged in planting moringa trees throughout the campus, this would include starting and trees are relatively low-maintenance and can be grown in a variety of climates, making them a good choice for college campuses. They can be planted in common areas, such as courtyards and walkways, or in designated food forests.

- **Engage students in harvesting the leaves for canteens and college kitchens.**

This is can be primarily be made by leaves that are in abundance and are easily accessible. However, flowers, pods, and even seeds can all be used to make a variety of dishes.

- **By integrating the moringa tree into colleges in India, colleges can help to improve the health and well-being maintained nurseries for the seedlings.**

Moringa of their students simply by re-valuing the plant that is well-known in traditional cultures.



~ Outreach ~

- Students should document the various dishes that are made with moringa and share them on national databases. Students can make use of social media, videos and photography even music and theatre to share this common work throughout India.
- Students should also engage in outreach work with local schools and other relevant audiences such as hospitals, corporates, government offices etc
- A college could promote the moringa tree to the college community through educational campaigns, workshops, and cooking demonstrations. For example, the college could host a "Moringa Day" or Moringa Club where students and faculty can learn about the tree, its benefits and recipes, sample moringa-based foods, share seeds and saplings.
- Partner with local farmers and businesses. Colleges can partner with local farmers and businesses to grow and process moringa products. This will help to support the local economy and make moringa products more accessible to students and the public.



Serving moringa dishes in the college dining hall can have a number of positive impacts, including:

- Improved student health and nutrition on a national level. Eating moringa can enhance Immune function, cognitive function and memory; boost energy levels and promote digestive health.
- Reduced environmental impact: Serving moringa dishes in the dining hall can help to reduce the environmental impact of the college's food system.
- Support for local farmers and businesses: Serving moringa dishes in the dining hall can help to support local farmers and businesses that grow and sell moringa. This can have a positive impact on the local economy and help to create jobs.
- Recognizing and fostering a collective cultural identity/value. Moringa is a powerful tool for fighting malnutrition and improving public health while connecting urban population to mother nature.



Here are some specific examples of the positive impacts that serving moringa dishes can have in the college dining hall:

- A study by the Akshaya Patra Foundation found that children who ate moringa-supplemented school lunches showed significant improvements in growth and cognitive function.
- A study by the University of Hohenheim found that moringa leaves can help to reduce cholesterol levels and improve blood sugar control.
- A study by the University of Agriculture Faisalabad found that moringa leaves can help to improve milk production and meat quality in livestock.
- A study by the Indian Institute of Technology Kharagpur found that moringa seeds can be used to produce biodiesel that is comparable to conventional biodiesel in terms of performance and emissions.

As well as obvious educational, social nutritional medicinal ecological economical and even cultural benefits revaluing drum spinach in young people's diet would create a revolution in India. Most importantly this is not new it is something we already know, knowledge that already belongs to use. This is a question of reclaiming a cultural value - Drumstick spinach could create a revolution.

Tiny leaves.

Enormous benefits.



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7 times
the Vitamin C of Oranges



4 times
the Vitamin A of Carrots



4 times
the Calcium of Milk



3 times
the Potassium of Bananas



2 times
the Protein of Yogurt



How many plants do you need to make an impact?

One moringa tree produces about 20 kg spinach a year (not in the first year; and in various seasons tree will have more or less leaves)

We estimate that 1 grown tree throughout the year would serve about 500 people. Even the larger colleges with 10,000 students would only need 20 to 30 trees to feed everyone on the campus.

This is a very ambitious project but one that, without a doubt is of utmost relevance today. This project will require very diverse skill sets, dedicated funding and at least 10 years commitment. We imagine there will be participation from the government and the corporate sectors as well as NGOs and various other organizations. A pilot project is an obvious place to start. We hope you feel as enthusiastic as we do and we would love to hear from you!

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Reclaiming Cultural Nutritional Heritage,
Krishna Mckenzie

