

Moringa Goes Mainstream

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STORY AT-A-GLANCE

- › A bona fide superfood, moringa leaves are packed with essential amino acids and impressive amounts of vitamins, minerals, antioxidants and natural plant compounds, which naturally translate to protection against toxins and disease
- › Aside from food use and the nutritional and medicinal advantages, moringa leaves can also be used as a biofertilizer, and the seeds can act as a water purifier
- › One company used moringa to start a nutritionally based company called Kuli Kuli, making bars, powder and other products from the leaves after discovering in the Peace Corps that the leaves helped increase flagging energy
- › Examples of moringa's nutritional benefits include chlorogenic acid, which research indicates may help balance blood sugar after meals, and quercetin, which may help lower your blood pressure

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The moringa tree may not be one that's familiar to the average American, but in tropical and subtropical areas surrounding the Himalayas, as well as India, Asia, Africa, Central America and the Caribbean, it's earned favorable ratings for multiple reasons.

There are many reasons why [moringa](#) has been dubbed a "miracle plant," although in some regions the large tree is called "[horseradish tree](#)" or "drumstick tree." In the areas of the world like those listed above and many others, it's the most important nutrition

source available, and has been for centuries. It's also earned a reputation as a traditional herbal medicine.

Multiple uses for every part of the tree, including the seeds, leaves, flowers, fruit (pods), bark and roots, make the *Moringa oleifera* tree remarkably notable and valuable, as it's effective as a medicine and food (described as having a "spicy green flavor similar to Matcha"¹) and has many other uses one might not think of immediately in terms of a viable agricultural endeavor.

Two examples are the leaves, which can even be used as a biofertilizer, and the seeds can act as a water purifier. Further, the tree's unique phytochemicals form a natural defense mechanism against pests that might attack it, as well as environmental stress, and it not only grows rapidly, but also tolerates drought – undoubtedly an asset in the areas it grows – plus the leaves can be harvested year-round.

As a food, it's reached and even surpassed superfood status, as *Moringa* leaves are packed with essential amino acids (meaning your body can't produce them on its own and they must be ingested from an outside source) and impressive amounts of vitamins, minerals, antioxidants and natural plant compounds, which naturally translate to protection against toxins and disease.

In fact, Lisa Curtis, a Peace Corp volunteer-turned-entrepreneur, discovered that moringa leaves relieved the lackluster nutritional options she experienced working in a rural village in Niger. Locals picked moringa leaves off the trees, mixed it with a regionally popular peanut snack called kuli kuli, and she found her energy returning. Asked to describe moringa, she explained:

*"It's a thin tree with leaves around one-third the size of spinach. These delicate green leaves provide a complete protein with all nine amino acids, and are high in iron and vitamins. People talk about broccoli helping fight cancer and being anti-inflammatory. Moringa has those same benefits, but your body can digest it more easily."*²

Commercial Moringa Takes the Superfood Worldwide

Curtis partnered with Kellogg's VC (venture capital) arm called Eighteen94 Capital to produce her own "Kuli Kuli, a Moringa Superfood Company," based in Oakland, California. The startup produces moringa bars, powders and energy shots through some of the nation's largest natural foods-oriented grocery stores, including Whole Foods, Costco, CVS, Target, Safeway-Albertsons and thousands of smaller ones.

She had initially planned to go through the Niger localities as a moringa source until an al-Qaida terrorist attack by a West African offshoot led to an evacuation within 48 hours, and her Peace Corps-based moringa project was literally forced to pull up roots.

Curtis admits she was heartbroken. At loose ends and back home in the San Francisco Bay area, she noticed several then-little-known superfoods such as chia and quinoa being marketed in her local grocery stores. It got her wheels turning, and the concept grew from there. Her next challenge was how to bring moringa to her, rather than building the business in the Niger region as she'd first envisioned.

After putting a business plan together and recruiting a few corporate-minded friends, crowdfunding through the site Indiegogo in June 2013 to help raise the first \$53,000, and test marketing at some of her regional farmers markets, Curtis' new enterprise took off.

The test-market product started with moringa bars — soy-free, gluten-free, dairy-free, non-GMO (genetically modified organisms) and vegan to reach the largest portion of the population. Before long, they developed a moringa powder with pineapple, coconut-lime or lemon, and richer flavors such as **cocoa** and almond butter to make smoothies, soups and savory dishes.

Another perk is that the company invested in an organization in Ghana that worked with women's groups to market their moringa powder in the U.S. Rather than the allegedly savvy natural foods markets being based more on the east and west coasts as expected, Curtis found the biggest success for the company's moringa powder was in

Florida among the Latino community, which was already familiar with moringa's anti-inflammatory benefits.

The Moringa Nutritional Profile

Some may find the term "superfood" a little dubious because it's now used so often, but when you take a look at what moringa offers in the way of nutrition, you may be surprised. The unique collection of nutrients contained in the leaves is a good start, even when compared with some of the healthiest foods you can eat. According to Nutritionfacts.org, in 100 grams or 1 cup of moringa leaves you get:

*"More iron than spinach (5.3 to 28.2 mg versus 2.7 mg in spinach), more vitamin C than oranges (120 to 220 mg versus 69.7 mg per orange), and more potassium than bananas (1324 mg versus 422 mg per banana)."*³

In case you didn't feel like doing the math, that's 25 times more iron than spinach, 12 times more vitamin C than oranges (a whopping 157% of your daily requirement) and 15 times more potassium when compared to bananas. If that's not enough, there's also nine times more protein than yogurt, 17 times more protein compared to milk and 10 times the vitamin A of carrots.

In addition, Healthline notes that 1 cup of moringa leaves contains 19% of the recommended dietary allowance (RDA) in vitamin B6. The site also explained:

"The diets of people in developing nations sometimes lack vitamins, minerals and protein. In these countries, Moringa oleifera can be an important source of many essential nutrients.

*Another thing to keep in mind is that if you're taking Moringa oleifera as a supplement, taking it in capsules won't supply large amounts of nutrients. The amounts are negligible compared to what you are already getting if you eat a balanced, real food-based diet."*⁴

Beta-carotenes in moringa also include the powerhouse quercetin, which may help [lower your blood pressure](#),⁵ and chlorogenic acid, which research indicates may help balance blood sugar after meals.⁶

America Is Seriously Veggie Deprived, but Moringa Can Help

According to the Kuli Kuli website,⁷ only 4% of the veggie-deprived American population is getting the recommended daily requirement. In fact, the National Fruit and Vegetable Alliance 2015 Report Card⁸ divulged that, excluding fried potatoes, vegetable consumption in the U.S. had declined by 6% over the previous five years.

To remedy the problem, just 1 tablespoon of moringa powder, which you can add to soups, sauces, smoothies, dips, desserts or even popsicles, equals one daily serving of vegetables.⁹

You may also opt to sip on a soothing cup of [moringa tea](#) made from the fresh or dried leaves of this plant to enjoy its benefits. The aforementioned antioxidants are a powerful aspect of moringa, because they fight the free radicals that bring on sickness and disease, generated by exposure to things like chemically laced cleaners, flea and tick powders and sprays used for pets and lawn fertilizers touted to keep your lawn weed-free.

High levels of exposure to those and myriads of other toxins, in addition to stress and many other causes, create the oxidative stress that leads to many chronic diseases. To combat the statistics, one study shows that just 1.5 teaspoons of powdered moringa leaves daily for three months "significantly" increased antioxidant levels in study subjects' blood.

The same study showed that the fasting blood sugar levels of 30 women dropped by 13.5%, leading researchers to conclude that the antioxidants in moringa have "therapeutic potential for the prevention of complications during postmenopause."¹⁰ In fact, studies are showing that moringa also has the potential to protect against arsenic

contamination. Many foods, including rice, have been rendered toxic due to chemical contamination during previous agricultural practices.

Over time, ingesting even small amounts of arsenic can cause serious health problems, but the leaves and seeds of the moringa plant may prove protective.¹¹ However, some studies caution that the effects were found in animal studies and that the same benefits aren't guaranteed in humans.

Studies Based on the Benefits of Moringa

Three of the science-based health benefits of moringa continue the theme of the way the compounds in the leaves positively impact people with high blood sugar, which in time can exacerbate other problems such as [heart disease](#). That's why scientists are taking a serious look at how this plant can keep levels at manageable limits.

One of the compounds in moringa leaves is isothiocyanates, also found in vegetables like [arugula](#), [Brussels sprouts](#), cauliflower, [watercress](#), [broccoli](#) and horseradish, all known to dramatically lower breast and colorectal cancer risks,¹² as well as help prevent weight gain and [insulin resistance](#), according to animal studies.¹³

Inflammation is a problem because it can reveal the basis for a number of serious conditions, but studies also show that moringa is effective in relieving it. Several fruits, vegetables, spices and herbs have had the same effect, and it may be the widespread benefits again of [isothiocyanates](#).¹⁴ Moringa also has a positive effect on optimizing [cholesterol levels](#), reducing several disease risks.¹⁵

Caveats to Moringa Consumption

According to Curtis, some of the moringa products, including powder, coming out that may claim to be organic have been shown through testing to contain pesticides and heavy metals, and further, have a bitter taste. Healthline notes the leaves may contain what are called antinutrients, which studies say can reduce the absorption of minerals and protein.¹⁶

Another thing to look at might be that, according to Nutritionfacts.org, moringa is not recommended for pregnant women as studies show it may have antifertility and abortifacient effects.¹⁷ When taken during the early stages of pregnancy, it may cause miscarriage due to its ability to cause uterine contractions.¹⁸

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