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REVIEW ON TRADITIONAL AND ADVANCE USE OF MORINGA OLEIFERA AS FOOD AND MEDICINE

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ABSTRACT

The review aimed to highlight the Moringa oleifera plants uses traditional to advance uses of Moringa and how to improve nutritional value in daily edible product. Moringa dried leaves use different recipe and value added food using Moringa leaf. M. oleifera is used to treat a variety of conditions, including diabetes, hypertension, stress, skin, cancer, and many others. They can be consumed fresh or dried. Moringa all part is edible like leaves, fruits, root and bark. From leaves of M. oleifera the product are prepare like chocolate, paneer, biscuit, cake, yogurt, khakhara, chin-chin, muffins. The study shown some interesting information provides a breakdown of the findings regarding the usage of the Moringa species in Nigeria by ethnicity as well as the applications of Moringa oleifera in different food recipe improves their nutritional and functional value.

Key words- Moringa oleifera, Nutritional value, edible products, traditional use,

INTRODUCTION

The most popular cultivated of the Monogeneric family Moringaceae, which originates in Afghanistan, too the ancient Romans, Greeks, Africa, Bangladesh. The cultivation of Moringa generally occurs in the southern states such as Tamilnadu, Karnataka, Kerala and Andhra Pradesh. (Fahey 2005) In general Moringa naturally grows elevation of up to 1000 m above sea level. Although it can also been growing hillsides pastureland and river basins are where it is most usually found in places with >400 mm of mean annual rainfall, it has been observed to grow to a height 6 to 7 m in just one year (Odee, 1988)

The Moringa tree is a perennial that produces low – quality lubricant but has been used for millennia in traditional medicine and industry. It is already a significant crop in India, Ethiopia, Sudan and Philippines. Humans have traditional consumed all the edible part of the Moringa tree for a very long time. (Fahey 2005) Moringa has many adaptive Valuable properties. They include the high levels of protein in the leaves, bark, stems and twig the high level of protein and oil the seeds; and the presence of growth factory in the leaves. Equally crucial is the trees low toxin content, which could increase its suitability as a source of food for both people and animal. (Foidl et al., 2001)

The tree has recently received supported as a superb native supply of highly digestible protein calcium, iron carotinoid and carbon that is suited for use in many of the world developing nations where malnutrition is a serious concern. There are a lot of potential uses for Moringa, so it's important to determine and record how it's actually being used in Nigeria. The knowledge gathered would serve as crucial empirical data for advocacy and policy development to promote and enhance consumption of Moringa oleifera products in Nigeria. (Berger el al., 1984, Gassenschmidtet et al 1995, Olsen 1987).

Among the 13 species of the Moringaceae family M. oleifera is the most commonly grown because it contains a broad range of nutrient is used. Almost this entire world tree component has been to be extremely helpful. Forage items include leaves and tree trunks. Flower nectar in honey, powdered seeds and for creating gums for water fiction (Fuglie 1999). M. oleifera leaf has been used as a substitute food supply to fight malnutrition, particularly in children and infant (Anwar et al., 2007). Addition, M.oleifera leaves are an excellent source of phytonutrients, like carotinoid, tocopherol and ascorbic acid (Saint et al,. 2014b 2014d). Moringa has been found to have number of health benefits like blood sugar level,

inflammation and improving heart health. It also has antibacterial and antifungal properties, making it a promising natural remedy for various infections. (Leone, A et al,. 2016)
This review summaries knowledge and examples of the bioactive compounds from Moringa oleifera plants and their potential use in the formulation of food product.

REVIEW OF LITERATURE

Traditional use of Moring oleifera:

The Moringa is extremely beneficial for both treatment and prevention in medicine. In numerous nations, traditional medicine uses its bark, sap, roots, leaves, seeds, oil and flowers. A traditional medicine for stomachaches, catarrh, cancer34, gastric ulcers, skin conditions, lowering blood sugar, increasing bone density, nervous condition, fatigue, increase lactation, hay, fever, impotence, edema, cramps, haemorrhoids, headaches, and sore gums. It is also used to strengthen the eye and brain, liver, gall, digestive, respiratory, and immune systems, as well as a blood cleanser and blood builder. Use of the leaves as a poultice on the belly to remove intestinal worms was a popular folk treatment. To cure conjunctivitis, leaves are infused and used as an eye wash**.**
Drumstick leaf soup is highly useful for the natural prevention of tuberculosis, bronchitis and asthma. The decoction of drumstick leaves is consumed as soup; for a better flavors, lime juice , pepper and salt can be added at the patients choice. A decoction made from fresh drumstick blossoms and female sexual weakness and functional infertility. As a medication, the powdered form of the bark increases the quality of sperm and heals problems such as premature ejaculation in men. The herbal treatment should be administered to cure the problem of premature ejaculation, which is a decoction of bark powder and water treated with honey.
Drumstick is an herbal remedy for digestive problems. A good herbal remedy for cholera diarrhea, dysentery, Jaundice and colitis is a combination of fresh leaf extract, one teaspoon honey and one glass of gentle coconut water. A fresh drumstick leaf extract blended with cucumber or carrot juice is a natural remedy for Dysuria and a high acid percentage in urine. Drumstick leaf extract combined, with lime juice can imparts natural brilliance to the skin tone when used regularly.
Among the 13 species of the Moringaceae family, M. oleifera is the most commonly grown because it contains a broad range of nutrients is used. Almost all of this wonder tree's components have been to be extremely helpful. Forage items include leaves and tree trunks. Flower nectar in honey, powdered seeds, and for creating gums For water filtration (Fuglie 1999) M. oleifera leaf has been used as a substitute food supply to fight malnutrition, particularly in children and infant (Anwar et al., 2007). Additionally M. oleifera leaves are an excellent source of phytonutrients like carotinoid, tocopherol, and ascorbic acid (Saini et al., 2014b, 2014d).
The leaf is utilized either alone or in conjunction with other vegetation by all ethnic groups. All the ethnic groups in Nigeria used Moringa parts to manage high blood pressure, hypertension and illnesses linked to HIV/AIDS, demonstrating the plant's widespread u (Dieye et al., 2008). However, the Yoruba and lgbo ethnic groups shared the practice of combining Moringa leaves with lemon grass and "Efinrin" (Occimumgratissimum) to cure high temperature, persistent hypertension, diabetes, piles and infertility. Only the lgbo ethnic group was unusual in using green leaves combined with immature pods and Occimumgratissimum as an infusion or prepared medicine for anemia patients. Furthermore the lgbo were the only ones to describe the use of the fresh leaves in conjunction with lemongrass and bitter leaves for the therapy of cancer. However, none of the lgbo respondent's men mentioned using bark and root tea. The lgbo and Edo/Deltan ethnic groups made note of fresh or desiccates leaves in conjunction with cream or shear butter, which was absent from other ethnic groups.
Interestingly, the Hausa and Fulani ethnic groups believe that the leaves release strength to them and therefore use it against general body weakness and malaria. The use of dry leaf, stem bark and stamen as food supplement powder was only common to the lbariba ethnic group for libido enhancement in men (Jacob o.et al 2013).

Advance use of Moringa sp.

There has been a rise lately in the use of this plant as a functional food component. Many studies have shown. The possible uses of various sections of Moringa oleifera in diet are as bellow,

1. Moringa chocolate –When the nutritional value of cocoa and Tahitian with Moringa was calculated, it was discovered that the amounts of protein, crude fiber, and ash rose noticeably as Moringa leaf powder concentration increased. (Abou-zaid AA et al,. 2017)
2. Moringa paneer-When Moringa paneer and paneer with various concentration of Moringa oleifera leaf extract were examined, it was discovered that the former had higher nutritional content than the latter. (Sachan P et al,.2010)
3.Moringa biscuit- Herbal biscuit it has been stated that adding 5% of Moringa oleifera leaf powder to biscuits increased their protein level by 14%.(Alam M,. 2014)
4. Moringa cake–Cakes were prepared using whole wheat flour and various amount of Moringa leaf (2g, 4g, 6g, 8g, and 10g). The pastries underwent nutritional and taste evaluations. It was discovered that as the concentration of Moringa increased, total fat and carbohydrates content dropped while moisture, crude protein, crude fiber, and total ash exhibited a rise. (Alam M,. 2014)
5. Moringa Yoghurt –Yoghurt with leaves from the Moringa oleifera plant. The product did not perform as well in terms of sensory metrics when compared to the control, but it had no detrimental effects on lactobacillus rhamnosus GR-1 development in yoghurt.(Hekmat et al ,. 2015)
6. Moringa khakhra –Dried drumstick leaves with high antioxidant activity were added to khakhras in the following ratios: 0, 2, 4, 6, 8, and 10%. The resulting products were then tested for physical properties and taste evaluation. The moisture, fat, ash, protein, carbohydrate, and antioxidant activity of the khakhras were enhanced by adding such processed leaves (sun dried, shade dried, and manually dried). (Maghu TK et al,. 2017)
7. Moringa muffins – Additionally, M. oleifera desiccated powder was used to make muffins, where it was added in concentration of up to 12% (per 55 gram of wheat used). The muffin can be effectively made at this concentration with improved nutrition qualities and tolerable sensory qualities. In comparison to the regulated muffin the ash contact value considerably increased. it was discovered that the Moringa cake had a notably high concentration of protein , lipid , beta- carotene and vitamin C. For Moringa muffins, the mineral level was also significant that of the control. The Moringa muffins phosphorus level also rose, but not substantially.(Srinivasamurthy S et al ,. 2017)
8. Chin- Nigerians make chin, a nibble food, from wheat flour, butter, eggs, and milk. Given that it was deep-fried, the result has a crispy structure. Examined how various drying methods (sun dried, oven dried, and shade dried) affected the Moringa-infused chin goatee. In comparison to the control, they discovered that oven dried samples contained less fat and hydration. According to the results of the elemental analysis, the sample that was baked in the oven had the greatest calcium content (190.5 mg/100 g), the highest zinc content (7.1 mg/100 g), and the highest iron content (51.3 mg/100 g). (Emilike et al., 2016)

CONCLUSION

Moringa oleifera belongs to the Moringaceae family and is the best know of the native Moringa oleifera genus. The entire Moringa oleifera plant is edible; all parts are edible like bark, flower, leaf and roots. The leaves of the Moringa plant are rich in vitamin, Minerals and antioxidants and are considered a super food and it has high nutritional value and very important for its medicinal value. M. oliefera is used to treat several condition , such as diabetes, hypertension , stress, skin, cancer and many more dieses use different part like leaves use in asthma and reduce blood sugar, Moringa pods are use leaver and spleen siestas, flower are use in urinary problem.

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