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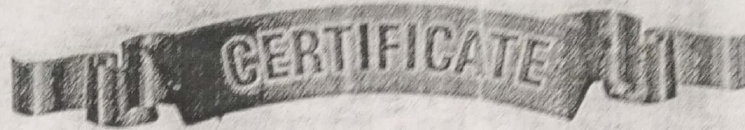
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Azhagamandapam, Thiruvithancode, Kanyakumari District, Tamil Nadu, S. India - 629 174.

PG & RESEARCH DEPARTMENT OF NUTRITION AND DIETETICS

National Seminar on

RECENT TRENDS IN NUTRITIONAL SECTOR

NUTRISECTOR-2K23



This is to certify that Dr. / Mr. / Mrs. / Ms.

Dr. M. VELVIZHI, ASSISTANT PROFESSOR of
PG & Research Department of Nutrition & Dietetics, Muslim Arts College

*has participated in the "National Level Seminar on Recent Trends in
Nutritional Sector NUTRISECTOR- 2K23" on 22 February, 2023 as a*

Delegate/ Resource Person / Presented a Paper entitled

on A Review Of Noni Fruit (Morinda Citrifolia)

won _____, organized by PG and Research Department

of Nutrition and Dietetics, Muslim Arts college, Thiruvithancode,

Tamil Nadu, India.



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RECENT TRENDS IN NUTRITIONAL SECTOR

Mrs. T. Sherin Mary M.Sc., M.Phil., B.Ed., NET,
Dr. T. Renisheya Joy Jeba Malar M.Sc., M.Phil., Ph.D



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HEAD OF THE DEPARTMENT OF NUTRITION & DIETETICS
MUSLIM ARTS COLLEGE
THIRUVITHANCODE - 629 174

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A REVIEW OF NONI FRUIT (*MORINDA CITRIFOLIA*)

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Abstract

The noni plant is native to Australia, Asia, and the islands of Polynesia. Noni is a small, shrubby tree. The noni fruit is yellow-greenish-white in colour and large, with a pebbled surface. Noni fruit is scientifically named as *Morinda citrifolia*. Traditionally, the noni has been used for treating colic, flu, diabetes, anxiety, and high blood pressure, and for depression and anxiety. All the parts of the plant are used for curing a number of illnesses. These fruits are rich in all nutrients. The Polynesian healers have been using the noni fruits for hundreds and hundreds of years to help treat a number of health problems such as burns, diabetes, aches, pains, arthritis, inflammation, high blood pressure, tumours, the effects of aging, and parasitic, viral, and bacterial infections. The ancient curing manuscripts mention the fruit as a chief ingredient in natural curative preparations.

Key Words: *Morinda citrifolia*, Polynesian, Bacterial infections, medicinal properties.

Introduction

Morinda citrifolia is commonly known as noni fruit. *M. citrifolia* is a fruit growing tree in the coffee family, Rubiaceae. This fruit is known with hundreds of names across the globe. More commonly known names are great *Morinda*, Indian mulberry, noni, beach mulberry, vomit fruit and cheese fruit. ("Some worldwide names for *Morinda citrifolia* L.", 2016). *Morinda citrifolia* grows in shady forest as well as open rocky or sandy shores. It can grow upto 9m (30ft) tall and has the large simple dark green deeply veined leaves. The plant bears flowers and fruits all year around. Noni is sometimes called a "starvation fruit", implying that it was used by tribal people as emergency food during the famine period. The odour of the fresh fruit's strong, vomit-like smell has made it a scarcity food in most regions, but also it is a staple food among some cultures, and has been used in traditional medicine. (Nelson and Scot C 2003) The fruit has been introduced as a supplement in various formats, such as capsules, skin products, and juices. The seeds of noni fruits are edible when roasted.

Scientific Classification of Noni Fruit

Table 1: Scientific Classification of Noni Fruit.

Scientific classification	
Kingdom:	Plantae
Clade:	Tracheophytes
Clade:	Angiosperms
Clade:	Eudicots
Clade:	Asterids
Order:	Gentianales
Family:	Rubiaceae
Genus:	<i>Morinda</i>
Species:	<i>M. citrifolia</i>
Binomial name	
<i>Morinda citrifolia</i> L.	

Phytochemicals

Morinda citrifolia fruit contains a number of phytochemicals, including lignans, oligo- and polysaccharides, flavonoids, iridoids, fatty acids, scopoletin, catechin, beta-sitosterol, damnacanthal, and alkaloids. (Levand, et al., 2009)

Nutritional Contents in Noni Fruit

Nowadays, noni fruit juice is considered as a safe, functional food that may enhance the body's immunity. In addition, Noni fruit juice may be a health benefits. (West B, et al., 2018; Brown A. 2012)

A 15 ml pure noni fruit juice serving may provide 3.5 kcal energy. (Chemical Constituents of Pure Noni Juice, 2022) The nutrients of noni fruit juice include:



Table 2: Nutritional value of Noni Fruit Juice per 15 ml

Nutrients	Value
Sugar	0.9 g
Carbohydrate	0.9 g
Potassium	10 mg
Calcium	2 mg
Sodium	1 mg
Magnesium	800 µg
Iron	35 µg
Zinc	300 µg
Vitamin B3	170 µg
Vitamin C	1.5 mg
Vitamin B9	12 µg

Health Benefits of Noni Fruit (West B, *et al.*, 2018; Brown A. 2012)

- It may maintain bone health
- It may perform as an antioxidant
- It may act as an immunity booster
- It may aid in weight management
- It may have anti-inflammatory properties
- It may reduce high blood pressure
- It may have anti-cancer activity
- It may help maintain oral hygiene

Medicinal properties of Noni Fruit

The extract of noni fruit should be used as an alternative to mouthwash because it gives the same effect as much as chlorhexidine and it also economical efficacious and minimal side effects (Yufri Aldi *et al.*, 2019). Noni fruit can reduce total blood cholesterol, LDL, triglycerides and increase HDL and can improve the histology structure of the aortic vessels (thinking of the *Tunica media*) in mice given a high fat diet. Hana safitri *et al.*, 2022. Ethanol extract of ripened noni juice have a higher content of total phenolic, total flavonoids, scopoletin contents and antioxidant activity. Lia meliawati, 2021. and also Ethanol extract of the noni roots reduces the blood pressure in an anesthetized dog. Mooethy and coorkers 1970. Noni ethanol extract FGF (fibroblast growth factor) to decrease blood glucose level by significance and depends that percentage calculation of blood glucose levels as much as 44.9% at a dose of 1000mg/kg BW on the observation 21st. Dharmas *et al.*, 2019. Noni also possesses antiangiogenic property approach via COX-2 inhibition and promised approach in the treatment of cancer and pharmacological action and traditional uses of noni along with researchers and novel pathways to treat cancers and various neurological disorders (Hariom sing *et al.*, 2015)

Conclusion

The great *Morinda citrifolia* has a broad range of activity. Many phytochemicals were founded from various parts and elicit activity like anti-cancer, anti-inflammatory, anti-diabetic, anti-microbial and neurological disorders. *M. citrifolia* has many medicinal values and health benefits.

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