



## Noni -A future intercrop of coconut

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### Abstract

**N**oni is a tropical fruit of the tree *Morinda citrifolia* L, popularly known as the Indian Mulberry. *Morinda*, the genus name for the tree is derived from two Latin words *morus* (mulberry) and *indicus* (Indian). The species name *citrifolia* indicates resemblance of the plant foliage to that of citrus species. The botanical name itself is a powerful evidence to show that *Morinda citrifolia* L. originated in India. Noni plant known in Sanskrit as *Ach* is attributed with special properties by ancient physicians. This fruit has a rich history in India, where it is used for centuries in the Ayurveda and Siddha systems of Indian medicine in addition to tribal folk medicines. Noni contains 160+

nutraceuticals, cancer inhibiting compounds, essential vitamins, minerals, antioxidants, alkaloids, amino acids and health enhancing attributes which are antibacterial, anti-inflammatory, analgesic and anti-congestive.

One of the unique properties of Noni is its detoxifying and cell rejuvenating functions. As body undergoes ageing, the production of growth factors diminishes and our body becomes less efficient in rebuilding and rejuvenating our tissues. Noni is a powerful rejuvenator which works at the cellular level for proper cellular function and body maintenance activities. Noni is proved to be a powerful health enhancer. It is also a cellular food. It helps the cells to stay

**The agronomic experiments conducted at Central Agricultural Research Institute (CARI) Portblair revealed compatibility of Noni with Coconut and resultant better performance. The buy back arrangement between farmer and Indian Noni Cultivation Council makes marketing a feasible and friendly proposition**



Immature Noni fruit

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Coconut garden intercropped with Noni

healthy. When our cells are healthy, our tissues, organs, systems and body become healthy. It cleanses the chemical and toxin residues from the cell membranes. Noni opens the cell membrane pores for proper absorption of micronutrients from the food and medicines. It is a powerful and proven anti-oxidant too. Noni stimulates our immune system to save us from viral and bacterial attacks and diseases. It is a proactive health drink. It also strengthens the self-healing mechanism of our body. Noni improves digestion. It is a great stress buster and a proven pain reliever without any side effects. Noni is also an adaptogen which normalises all functions of the body systems.

The noni fruits were used in India by traditional healers. Noni is being used now as a food supplement all over the world by people suffering from various diseases. Forty two Universities in the world

have undertaken research on Noni. There are more than 80,60,000 website links and thousands of testimonials on the well-n-ess properties of Noni. Sea coasts of Andaman and Nicobar Islands are abodes to Noni and seen grown wild and cultivated in the interspaces of coconut plantations. The spectacular performance of coconut and Noni when interplanted throws possibility

of cultivation of noni in the interspaces.

In general, Noni is not cultivated on a large scale in India. Indian Noni Cultivation Council under the aegis of World Noni Research Foundation, Chennai is promoting cultivation on a contractual buy back basis. The databook of National Horticultural Board presents a total area of 266.7 ha under Noni spread over 9 states- Maharashtra (68ha), Karnataka (48.9ha), Orissa (17.6ha), Andhra Pradesh (12.2 ha), Gujarat (17.1ha), Rajasthan (4.1ha), Tamil Nadu (2.0ha), M.P. (18.4ha) and Andaman and Nicobar Islands (78.4ha). A total of 348 cultivators are involved in the cultivation of the tree. Being a perennial, it is possible to harvest fruits of different maturity at the same time leading to possibility of value addition in many consumable forms. The tree is capable of yielding upto 250-300kg after 9-10 years of planting. The tree yields up to 40-45 years and harvests possible 6-7 times



Noni flower and its pollinator



an year. Agronomic studies conducted at National Research Centre on Noni at Chigleput, Chennai recorded an average yield of 16.875 tones/ha and a net return of Rs 963/month was worked out at a moderate price of Rs 5/kg of fresh fruit.

In Hawaii, Noni fruits are harvested 2-3 times /month. With a juice extraction rate of 50%, one ha yields 35 tones of juice at Hawaii.

Maheswarappa, Dhanapal and Geetha (2010) at CPCRI Kasargod studied influence of different types of planting material and planting geometry on growth and yield of Noni grown as mixed crop in coconut garden under littoral sandy soil during July 2008. The treatments consisted of different types of planting materials- seedlings, tissue cultured plantlets, and cuttings. Two planting geometry- single hedge system (one row of Noni-3m plant to

plant spacing in the centre of two rows of coconut palms), double hedge system (two rows of Noni-3 x2 m spacing in the centre of two rows of coconut palms). The study revealed that growth parameters like plant height, total number of branches and girth size in double hedge row was comparatively higher than single hedge rows in two planting materials-tissue culture plants and seedlings. Rooted cuttings performed better in single hedge than in double hedge. Flowering started in the first year itself in the cuttings while seedlings and tissue culture plants took more than one year.



Noni seeds

Maheswarappa et. al (2010) observed improvement in yield of coconut when intercropped with Noni.

The agronomic experiments conducted at Central Agricultural Research Institute (CARI) Port Blair revealed compatibility of Noni with Coconut and resultant better performance. The buy back arrangement between farmer and Indian Noni Cultivation Council makes marketing a feasible and friendly proposition.

#### Reference

Maheswarappa, H.P; Dhanpal, R and Geetha. P. 2010. Influence of different types of planting material and planting geometry on growth and yield of Noni (*Morinda citrifolia* L.) grown as mixed crop in coconut garden under littoral sandy soil. First World Noni Congress, Proc. 142-149. World Noni Research Foundation, Chennai-96.



Noni fruits