

Pushing the limits of tropical gardening

TROPICAL TREASURES

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Spring 2007



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in nontropical climate and indoors

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Share your treasures:

Authors welcomed! If you have an experience growing tropical plants in nontropical climate, or just wish to share a few plant pics and a note with other readers, drop us a line.

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NONI - LIFE SUSTAINING PLANT

BY TATIANA ANDERSON

PHOTOS BY TOPTROPICALS.COM

Nature's Food and Pharmacy:

You can either eat it, or smell it, or treat with it. It's good for you, and, yet you can grow it.

Many people have heard about the mysterious and miraculous Noni, yet few know exactly what it is. Originally, this tropical fruit was only found in the South Pacific, but is now more popular due to its unique medicinal properties and easy cultivation.

Scientific name: *Morinda citrifolia*

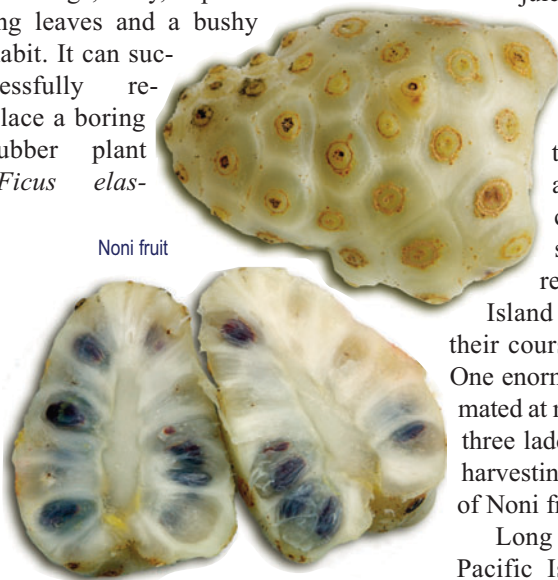
Family: *Rubiaceae* (Coffee Family)

Common name: Noni, Indian Mulberry, Cheese Fruit

Origin: Southeast Asia

It is possible to grow this small tree not only in your yard, but indoors as well, and have a constant crop of fresh fruit. The plant is highly ornamental, with large, waxy, tropical looking leaves and a bushy habit. It can successfully replace a boring rubber plant (*Ficus elastica*).

Noni fruit



Nature's Food and Pharmacy

tica) sitting in your porch corner, and yet will bring you valuable, odd - looking fruit. It's not only a conversation piece, but an everyday folk remedy as well.

Supposedly, noni juice can cure just about anything that ails you, so, let us look into the history of this plant and see how it has been used over the centuries as a traditional health-giving plant.

History

This plant has been known among the people of the tropics for thousands of years. Different people in tropics have more than 70 names for this plant, but "noni" is the most widespread name now.

The plant flourishes in the lush and unspoiled islands of French Polynesia, the best known of which is Tahiti. Noni juice has been used by Polynesians for over 2000 years.

It has become an integral part of the Polynesian culture and is widely featured in Hawaiian, Tahitian and Tongan mythology. Volcano goddess Pele is also associated with noni, in that recent lava flows on the Big

Island appear to have changed their course to spare old Noni trees. One enormous tree in Kalapana, estimated at more than 300 years old, has three ladders stationed around it for harvesting a year round bumper crop of Noni fruit.

Long before settlers came to the Pacific Islands, noni was used in



Nature's Real Doctor

Noni has distinct chemical constituents that are responsible for its reputed healing characteristics and make it unique.

In 1950, Dr. Ralph Heinicke, a scientist and biochemist in Hawaii discovered an alkaloid he named xeronine, an essential element for human health that is required for proper cellular communication and protein structure. The increased pollution in our environment negatively affect our intake of xeronine. Without this alkaloid, our body's cells become weak, resulting in weak tissues. Weak tis-

sue causes weak organs. In turn, weak organs can lead to numerous health problems. As we age, our bodies do not produce enough xeronine for our bodies to function optimally.

India as part of a medical system of using plants and natural treatments called Ayurveda – a Sanskrit term meaning "the science of life." A highly advanced system of natural medicine, Ayurveda is still being practiced today.

When Europeans began exploring the islands of the South Pacific in the late 1700s, they noticed it was widely used by the native people. Captain Cook is his journals mentioned of his observation of the island natives using Noni for food and medicinally.

During World War II, U.S. soldiers based on Polynesian islands were instructed in their field manuals that noni was a safe food staple.

Dr. Heinicke has found noni to be one of the richest sources of xeronine available. When xeronine is present in the body, it accelerates the body's ability to make sick cells better and to keep cells from getting sick in the first place.

Since noni fruit seems to operate on such critical immunity level, it may be useful for a wide variety of medical applications. Noni supports the immune system's natural ability to fight disease and infection. It's a superior antioxidant



Author with the plant growing in 7 gal pot

that helps rid the body of harmful free radicals. Noni fruit contains components that are specifically important to the skin and hair. It also helps carry beneficial substances to the skin.

Botany of Dr. Noni

Noni is a member of the Rubiaceae plant family. In natural habitat this small tree reaches heights of 10-20 feet, and yields fruit year-round. It has four-angled stems, a straight trunk, large bright green and elliptical leaves that are thick, deep-veined, short-stemmed and 8 inches or longer.

The remarkable part is the small, white tubular flower whose nectar is a favorite food of honey eaters. The flower seems to appear on top of already formed ovoid, "grenade-like" fruit that grows and ripens very quickly.

In fact, the flowers form in inch-long globose heads bearing many small white flowers. The flower head grows to become mature fruit that is at first green, turning light yellow or off-white when ripe, with many seeds. It can grow in size up to 4-5 inches or more, about the size of a potato, and has a lumpy surface covered by polygonal-shaped sections.

The whole fruit is edible, but has somewhat unpleasant pungent smell when fully ripe, although the taste itself is not bad and resembles over-ripened sweet-and-sour pineapple flesh. However, the disagreeable odor is something one has to get used to. Some people compare it with

a smelly blue cheese (hence another name, cheese fruit). Nevertheless, in some Pacific islands (Raratonga, Samoa, Fiji) the fruits were eaten raw or cooked as a staple food of choice. Elsewhere, the fruit is eaten raw with salt (Indochina, Australian Aborigines) or cooked as a curry. The young leaves can also be eaten as a vegetable and contain protein (4-6%). Seeds may be roasted and eaten.

Noni flowers have both male and female organs within the same flower, so only one plant is necessary for fruit production. The plant is flowering and fruiting year around. Fruits used to gather seeds are traditionally harvested when they start turning white, or when they have turned fully soft, translucent, and become characteristically odorous.

Fruits have a large number of hard, brown, triangular-shaped seeds the size



Noni fruit development



of apple seeds. A single large noni fruit can contain well over 100 seeds. The seed coat is very tough, relatively thick and covered with cellophane-like parchment layers forming a durable, water-repellant, fibrous seed coat or protective air sack that makes the seeds buoyant and gives them the ability to float in water for a long time. This could explain the wide distribution of the plant throughout the Polynesian islands. Seeds remain viable, even after floating in water for months.

And yet so easy to grow!

Noni is an unusual plant because it can easily tolerate and thrive in a wide range of soils and conditions. The plant can take a wide range of light level from full sun all day long to deep shade.

In shade, its large tropical leaves become even bigger and darker. Of course, low light significantly reduces the amount of flowers and fruit.



Noni can be grown indoors

In natural habitat, noni thrives with moderate watering and can survive extended periods of drought once established and mature. It grows well on sandy or rocky shores. Apart from saline conditions, it can withstand drought and grows in poor soils. The plant can be seen in clearings, volcanic terrain, lava-strewn coasts and on limestone outcrops.

You can grow noni in your garden, as a patio or indoor plant. It is perfect for container and indoor culture, tolerates low light conditions (low light actually makes leaves darker, bigger and shinier) and will start fruiting the first year.

In container cultivation, it prefers moist soil at all times or the large meaty leaves start wilting and may drop.

It is almost impossible to overwater this plant; it may easily stand in water for a while. Of course, try to be reasonable, it is not an aquatic! Being relatively flood tolerant, Noni is a good choice for beginners, who tend to overwater their plants.

Once Noni starts blooming and fruiting, it pops out one fruit with flowers on it after another. You will be greatly rewarded with a little simple care and pleasantly surprised with its thriving and beautiful tropical look.

Noni plants respond well to sprays of foliar fertilizers and should be fertilized frequently with small applications. Noni flower and fruit production is very responsive to sprays of foliar fertilizers and other products containing nitrogen and minor elements.

No serious pest problems are associated with noni, although snails like the delicious leaves, which probably are good for their health, too!

The only requirement you must follow is keeping the plant in warm conditions. Noni is a very cold sensitive and needs a minimum temperature of 55-60F. to keep it happy. Below this temperature, leaves begin to show damage; below 35-40F., the plant may wilt, turn brown and drop leaves. It may never recover and die if exposed to temperatures below 35F. even for a few hours.

Noni is easy to propagate with seeds or cuttings. Only soft, ripened fruits should be chosen for seed collection. Ripened fruits break up easily by hand, but the pulp clings to the seeds. The best way to separate seeds from the fibrous fruit flesh is by cleaning them under a waterstream in a colander. First, split the fruit by hand into smaller pieces. Separate the seeds from the flesh using a strong spray of water and a firm screen or colander, washing the pulp through the screen while retaining the cleaned seeds. Rubbing the fruit fragments on the screen can help force the fruit flesh through the screen. It may take a few minutes of vigorous washing and rubbing to detach most of the flesh from the seeds.

Some growers just plant fruit fragments containing seeds directly into the soil. However, we do not recommend this technique since the flesh may create a rotting environment.

Fresh noni seeds should be planted immediately after extraction from the fruit and normally do not require any special pre-treatment, although it will be beneficial to soak them overnight in Cirkon solution, which will improve germination rate and fight possible fungus.

Sometimes, even fresh seeds take up to five or six weeks to germinate; if conditions are favorable and temperature high (80-95F.), they normally start sprouting within five or 10 days. Scari-fying the hard seed coat by nicking or puncturing it significantly reduces germination time. Unscarified seeds may require several weeks or even months before natural germination takes place, but time can be reduced by using bottom heat. Make sure to keep soil constantly moist.

Cuttings root easily, too. However, for a stronger root system and healthier plant, noni should be grown from seed. Seedlings and rooted cuttings take approximately the same time to start fruiting.



Noni seedlings

The prolific and beautiful noni bears fruit year round as if to say, "Here I am, please use me!" Even if you are a novice gardener or just do not think that your thumb is green enough, you

should try growing a noni tree if you can provide a warm environment for it. Replace that boring Ficus in the corner with an exotic-looking Doctor Noni! It will brighten your home, and who knows - maybe some day it will help you to get all better.