



# Neera

## A Salubrious Drink that Boost Human Health

**Dr. S.R Priya**

\*Guest Faculty, Department of Home Science,  
Mother Teresa Women's University Research and Extension Centre, Coimbatore.

Coconut plays an important role in the national economy of India. Traditional areas of coconut cultivation are the states of Kerala, Karnataka, Tamil Nadu, Andhra Pradesh and also Goa, Orissa, West Bengal, Puducherry, Maharashtra and the island territories of Lakshadweep and Andaman and Nicobar. Millions of families in India depend on coconut for their livelihood either directly or indirectly. India ranks third in area and production of coconut in the world. The four southern states viz . Kerala, Tamil Nadu, Karnataka and Andhra Pradesh are the major coconut producing states in India accounting for more than 90 per cent of area and production. Coconut farming need to be nurtured by making it more profitable. This can be achieved through value addition by developing products of commercial value. Product development using coconut improves the livelihood of coconut farmers with small holding and also showcases India as a manufacturing hub for the food processing sector and promotes the Make in India concept of our Honourable Prime Minister Shri. Narendra Modi.

### Neera – A Natural Health Drink

Neera is the sweet sap obtained by tapping unopened inflorescence/spadix of a coconut palm. It

“ Production of neera, a healthy drink collected by tapping the unopened inflorescence is a highly profitable industry in many coconut growing countries which is yet to be explored at a wide level in India. ”

has high nutritive value and medicinal properties for making it as a natural health drink. It is possible to use coconut tree both for tapping and for nut production. The experience from countries like Philippines, Thailand, Indonesia etc. is that utilizing palms for neera production is much more profitable. Production of neera, a healthy drink is a highly profitable industry in many other coconut growing countries which is yet to be explored at a wide level in India.

### Nutritional Composition of Neera

Neera is a delicious health drink and a rich source of natural sugars, minerals and vitamins. It contains 16 kinds of amino acids and various vitamins such as vitamin C, vitamin B complex, especially nicotinic acid

(Vitamin B3) and minerals (potassium, magnesium, zinc and iron). Neera is highly nutritious than tender coconut water. Its Brix level is 16 [sugars] compared to 12 in sugarcane juice. Neera has a low glycemic index of 35 compared to cane sugar or sugarcane juice that has a glycemic index of 60. The nutrient content of neera is presented in the following table.

Vitamin and Mineral Content of Coconut Neera			
VITAMIN	VALUE (mg/dl)	MINERAL	VALUE (mg/l)
Thiamine	77.00	Nitrogen	2,020.0
Riboflavin	12.00	Phosphorous	790.0
Pantothenic acid	38.40	Potassium	10,300.0
Niacin	40.60	Calcium	60.0
Biotin	0.17	Magnesium	290.0
Folic acid	0.24	Sodium	450.0
Inositol	127.70	Chlorine	4,700.0
Choline	9.00	Iron	21.9
Vitamin C	23.4	Zinc	21.2

Source: Indian Coconut Journal, 2013

### Value Added Products from Neera

**Neera** can be processed into a number of value added products. The list of the products is as follows:

**Palm Syrup** is produced when fresh neera is heated and concentrated into syrup. In many countries, palm syrup is used as a health and wellness drink and is prevalently used in Ayurveda and other systems of medicine.

**Palm wine** is an alcoholic beverage created from the sap. Palm sap begins fermenting immediately after collection, due to natural yeasts in the pores of pot and air (often spurred by residual yeast left in the collecting container). Within two hours, fermentation yields an aromatic wine of up to 4% alcohol content, mildly intoxicating and sweet. The wine may be allowed to ferment longer, up to a day, to yield a stronger, more sour and acidic taste.

**Palm Jaggery** is prepared from neera, which is converted into a solid or a semisolid crystalline mass ready for direct consumption called palm jaggery. It has got wide use as sweetening agent in Indian village food products. Traditionally, palm jaggery is made by boiling raw palm sap in large, shallow, round bottom vessels. The raw juice is heated, as boiling proceeds, the froth and foam coming up to the surface is removed. The juice is stirred at intervals to facilitate mixing and rapid evaporation. When the juice thickens, the fire is controlled in order to prevent

it from caramelizing. Correct strike temperature is judged by patting a small quantity of the thickened mass in water and rolling it into ball shape. If ball forms into a hard one, the mass is moulded into moulds. In order to facilitate easy removal of the blocks from the moulds, the moulds are either moistened with water or besmeared with fresh sweet oil before filling.

**Liquid Palm Jaggery** is in liquid form or semi-solid form. It is very fine and chemical free liquid syrup.

**Palm Honey** is produced from neera, which is heated in an open vessel to 78° Brix level. It is thick liquid syrup like honey. It is used as table syrup as a sweetener in confectionary items like ice creams. It is a rich source of iron for anaemic patients and hence it is mainly used in pharmaceuticals formulation.



**Palm Sugar** or crystalline sugar is made from neera. The initial process of sugar making is same as that of jaggery. When the cooking mass thickens, it is removed from fire and mixed with steel server heavily, when the temperature decreases the mass gets converted to crystalline sugar.

**Palm Candy** has its importance among the products of neera. It has got its various uses in ayurvedic medicinal preparations.

**Molasse's** is a sweet syrup obtained as a by-product of palm sugar. Bio-chemical products like ethyl alcohol, acetic acid, citric acid etc., can be prepared out of molasses by fermentation methods.

**Palm Vinegar** can be produced from the inflorescence sap other than from matured coconut water. Fresh sap is poured in a wide large plastic



container with clean netted cover to allow aeration and prevent entry of dirt and foreign objects. After about ten day's fermentation in well ventilated room, the sap can be harvested as vinegar. Vinegar has extensive use as preservative in pickle industry and flavouring agent in food processing sector. The palm vinegar has good export potential as compared to synthetic vinegar.

## Health Benefits of Neera

A recent study conducted by the Indian Institute of Science, Bangalore shows that neera can help cure liver diseases. The study proves that neera is particularly useful in treating liver diseases following consumption of alcohol. The magical property of neera to remove "acetaldehyde" (the toxic metabolic product of ethanol causing liver damage) was proven in the study. It has also been shown to boost the activity of a normally functioning liver.

Neera is safe and perhaps the best health drink for persons suffering from diabetes. This is because of its low glycemic index (GI). Neera do not increase the blood sugar level above glycemic index 50 within two hours of consumption. The use of neera and its by products gives the same sweetness without causing hike in blood sugar level compared to the traditional sweetening agents used in soft drinks.

The low GI of neera is due to the presence of inulin, a natural source of carbohydrate. Neera is helpful in preventing many lifestyle diseases like obesity, cardiovascular diseases and even cancers of the breast, colon, pancreas and prostate, bone and fatty liver etc. It has been studied for use in medical conditions like asthma, tuberculosis and urinary tract infections.

Neera is a nutritious drink that is amazingly rich in vitamins and minerals. It contains a good amount of minerals. Neera helps to keep the body hydrated, while the nutrients in it nourishes body and keeps energetic and refreshed. Neera can be given as a natural supplement in conditions like iron deficiency, anaemia and zinc deficiency.

Neera is a rich source of Vitamins. The anti-oxidant property of these vitamins and the neutral pH makes neera a natural detoxifying health drink. Apart from the minerals and vitamins, the sweet drink is rich in glutamic acid (amino acid) which is necessary for protein synthesis. It is widely used during post operative



care. It has high content of electrolytes and can be used to treat diarrhoea and dysentery for the replacement of electrolytes. It also facilitates clear urination and prevents jaundice.

Hypertension is a common problem affecting billions of people all over the world. It is also an important risk factor for health problems like stroke, kidney damage and cardiovascular diseases. Studies indicate that coconut neera is effective in managing hypertension and associated complications without causing any side effects.

According to various clinical studies, neera has applications for various health conditions including asthma, anemia, bronchial suffocation, tuberculosis, and piles. It is high in inositol, a naturally occurring nutrient, which is beneficial for the treatment of eczema, eye abnormalities, etc. It is also associated with the regulation of enzyme activity, nerve transmission and transportation of fats within the body.

## Conclusion

The real growth of India relies on the growth of agriculture sector. To sustain the coconut farming, more value added products from coconut has to be produced. Neera from coconut is a nature's nutritious sweet drink having numerous health benefits. Neera can be promoted as nutritious health drink and also as sports drink, as it possesses naturally high sugar and electrolytes. Neera tapping would definitely help farmers for adequate economy to upgrade their livelihood from coconut farming. ■

