

Underutilised Medicinal Fruit Crops

Dr.P.Tanuja, Dr.B.Anitha.and Dr.Shanmukhi
Malla reddy University School of agriculture sciences

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Introduction

Fruit crops are regarded as and classified as protective foods due to their abundance in different photochemical, minerals, and vitamins. They include abundant amounts of soluble dietary fibre, which helps to enhance the immune system, lower cholesterol and fat levels in the body, and minimize irregular bowel movements. Crops that are neither farmed commercially or on a large scale nor are they traded widely internationally are referred to as underutilized crops. Those plant species that are traditionally employed for their food, fodder, fibre, oil, and broad therapeutic capabilities are the underused fruit crops. To assure food security, nutrition, health, revenue creation, and environmental services, these species offer untapped potential.

Major fruit crops including the mango, banana, papaya, litchi, guava, and others are developed for commercial purposes, but wild fruits that can be eaten are neither domesticated nor farmed. The majority of underused indigenous fruit crops are employed as medicinal plants across India and are well-liked in numerous indigenous medical systems. These fruits' value-added goods require a targeted strategy to succeed on both the domestic and global markets. The current overview of these fruit crops focuses mostly on the culinary, nutritional, and therapeutic significance of these little fruits. The fruits Bael (*Aegle marmelos*), Jamun (*Syzygiumcumini*), Karonda (*Carissa carandas*), bael (*Aegle marmelos*), Ber (*Ziziphus mauritiana*), Lasora (*Cordia myxa* L), Phalsa (*Grewiasubinaequalis*), amla (*Emblica officinalis*) etc. are among the most frequently underutilised in India.

Aonla

Aonla, also known as Indian gooseberry (*Emblica officinalis*), is a member of the Euphorbiaceae family and has been used for therapeutic and medical purposes in India from ancient times. It is a significant indigenous fruit of the Indian subcontinent and is utilised extensively in Indian medicine. The richest source of vitamin C and a fruit with a high nutritional value is the aonla. It contains substantially more vitamin C than guava, citrus,

and tomato fruits, with 500–1500 mg of ascorbic acid per 100 g of pulp. Nearly 20 times as much vitamin C is present in the fruit juice as there is in orange juice. Additionally, it contains phenols and tannins containing gallic acid, elegendic acid, and glucose that stop vitamin C from oxidising. Fresh aonla juice and honey combined into a tablespoonful form a very useful medicine for the treatment of a number of illnesses, including pulmonary tuberculosis, asthma, bronchitis, scurvy, diabetes, anaemia, memory loss, cancer, stress, influenza, cold, hair loss, and greying of the hair, among others. This fruit is utilised to make a variety of ayurvedic tonics like Chayvanprash, Triphala, etc. because customers do not enjoy it in its fresh form due to its very acidic and astringent nature.

Bael

An important member of the Rutaceae family that is indigenous to India is bael (*Aegle marmelos*). Additionally, it can be found all over South-east Asia. Calcium, phosphorus, iron, carotene, thiamine, riboflavin, niacin, and vitamin C are among the vitamins and minerals found in bael fruits. The leaves, roots, seeds, bark, and fruit, among other plant parts, all have economic value and various medicinal properties. These include analgesic, anti-inflammatory, antipyretic, anti-microfilaria, antifungal, hypoglycemic, antidyslipidemic, immunomodulatory, antiproliferative, wound healing, anti-fertility, and insecticidal properties. One of the richest sources of riboflavin is thought to be the fruit. Marmelosin, a fruit compound with therapeutic properties from the Bael fruit, is used to treat gastrointestinal disorders.

Jamun

Syzygiumcumini, is a well-known indigenous fruit crop with commercial significance in India. It is a member of the Myrtaceae family. In various regions of the nation, it is also known as Ram Jamun, Indian Black Cherry, Black Plum, etc. Jamun fruits are extremely nutritious (5). In addition to being a good source of minerals, carbohydrates, and proteins, it also contains iron. For many conventional medical systems, jamun is regarded as a therapeutic plant. It's supposedly a blessing for diabetes patients. In the treatment of diarrhoea, ulcers, inflammation, etc., it is quite useful. It contains a lot of anthocyanin-containing chemicals, including glucoside, ellagic acid, isoquercetin, kaempferol, and myrecetin. Fruits include a variety of antioxidant substances, such as vitamins, carotenoids, flavonoids, and phenolics. Jamun seed powder has the ability to lower the amount of sugar in

urine. Consuming jamun is thought to be a healthy and less expensive method of managing diabetes. The jamun's glucoside content prevents starch from being converted to glucose, which lowers blood sugar levels in the body.

Karonda

The Apocynaceae family includes the short-stemmed evergreen shrub or tree known as karonda (*Carissa carandas* L.). Due to their nutritious content, karonda fruits are employed in many ayurvedic preparations. Fruit that is still green makes a tasty starter. Root extract is used to treat chest pain, while leaves are used to treat fever. Leprosy therapy options include external use of leaf extract. To treat minors' worms, mix two drops of plant oil with half a cup of honey. Additionally, it has antioxidants such flavonoids, alkaloids, tannins, and others that have important properties like analgesic, anti-inflammatory, antipyretic, and cardiogenic. Karonda fruits have historically been utilised as blood purifiers, pain relievers, epilepsy, leprosy, fever, nerve disorders, and treatments for malaria.

Phalsa

Grewia subinaequalis, is a huge shrubby tree that may grow to a height of 15 to 16 feet. It is indigenous to Bangladesh, Pakistan, Sri Lanka, and other countries in Southeast Asia. It is a member of the Tiliaceae family, whose edible fruits are grown in India and many other tropical nations. Indian Sherbet Berry is another name for it. The greenish-white fleshy pulp above the seeds of the ripe Phalsa is similar to grapes in that it has a thin layer of dark purple to black colour. It is also found in branched clusters and has a sweet and tart flavour. Because phalsa fruits contain essential elements like potassium and phosphorous, they are incredibly effective at bringing high blood pressure into the normal range. Due to the presence of anthocyanins, antioxidants, and tannin, it also prevents the buildup of cholesterol in blood vessels and prevents the development of cardiac diseases such as atherosclerosis, arrhythmia, and heart attacks.

Conclusion:

In addition to their nutritional importance, the fruit crops highlighted here have a number of medical benefits. These crops are present everywhere around us randomly. Therefore, systematic cultivation of these crops and effective use of the channels and systems for distributing fresh produce and processed goods can encourage growers to cultivate these crops and strengthen the national economy. Utilizing these crops to create a variety of



exciting value-added goods for the food and nutraceutical industries has enormous potential. The value-added product can fill the market's lack of new products and fulfil the need for nutritional security as well as a healthy and safe lifestyle.

