

## NEW ERA AGRICULTURE MAGAZINE

## Value Added Products of Bael: The Fundamental Role of Income Generation of Farmer

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## **INTRODUCTION:**

Bael (Aegle marmelos Corr.) is an important indigenous fruit of India belongs to family Rutaceae. The fruit is classified as is underutilized since it not farmed economically on a big scale and is not widely traded. it originated in India and can be found all over South Asia. The fruit has a hard, woody outer shell and a sweet, rich, aromatic pulp inside. Beal fruit has a number of bioactive components, including alkaloids, glycoside phenols, coumarins, steroids, tannins, and carotenoids. The fruit has an excellent medicinal value when it is still beginning to ripen and when it is unripe. The



fruit is fragrant, cooling, and laxative. Bael is provides lots of vitamins and minerals including Vitamin C, Vitamin A, thiamine, riboflavin, niacin, calcium, phosphorus to diet and but considered to be one of the richest sources of riboflavin.

## **MEDICINAL BENEFITS**

It contains an abundance of nutrients that can help treat hepatitis, ulcers, digestive issues, tuberculosis etc.. Additionally, it has a lot of tannins, which help treat cholera.

## VALUE ADDITION OF BAEL FRUIT

Bael fruit, in recent time it is becoming popular due to its medicinal value and refreshing nature. Value addition of Bael fruit is primarily used for pulp and juice. Beside these, a number of value-added products such

# ⇒ Powder

as: -

The pulp of fruit dried at 55-60°C temperature. After complete this process dried pulp grinding and powder packed in polythene bags. this is a very affective process of storage of produce in longer time for use it.

## ⇒ Ready-to-serve (RTS)

To prepare RTS, first of all ripe fruits are selected, then after that raw juice/pulp is prepared. the concentration of fruit juice, TSS,

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E-ISSN: 2583-5173

Volume-3, Issue-10, March, 2025



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Acidity (maintain taste) are maintained and added KMS for preserve longer time and used.

#### ➡ Squash

The make squash beverage contains at 25 per cent fruit pulp or juice and 40-50 per cent TSS, besides 1 per cent acid and adding the preservatives like sodium metabisulphite (350 ppm). The squash filled in sterilized bottles, crowned and pasteurized at 80 °C for 30 minutes than storage for further use.

### ➡ Toffee

Fruit toffees generally are more nutritious than ordinary toffees, and bael fruit pulp provided even better toffees because of its nutritional and medicinal properties. Bael fruit toffees is successfully prepared by mixing cane sugar, glucose, skim milk powder, hydrogenated fat and extracted pulp. The final moisture content of the toffee approximately kept at 8.5 per cent.

#### ➡ Candy

Fruit slices are submerged in 70% sugar syrup to make bael candy, which is then drained out and dried at 55-60°C for 8-10 h in oven. This product was kept for a long period.

#### Dehydrated bael

The mature fruit is sliced into 1-1.5 cm thick slices, fumigated with  $SO_2$  for  $\frac{1}{2}$  hour, and then dehydrated in an oven set to 55–60 degrees Celsius until the weight remains constant. For later usage, store the dried slices in glass jars or plastic bags.

#### 🗢 Slab

Fruit slab, leather, or paper are all concentrated forms of fruit pulp. Concentration of bael slab. Mix 200-300 ml of water per kg of fruit pulp, agitate, and heat up to 80°C. The pulp should have 35% TSS, 0.5% titratable acidity, and 0.07% KMS, which must be maintained with the addition of citric acid, sugar, and KMS. After boiling, the mixture is spread on aluminum trays with butter and dried at 55-60 °C for 15-16 hours to achieve a moisture content of 14.5%.

#### ᅌ Jam

The jam is a concentrated fruit product rties. Bael fruit with a natural fruit flavor and high nutritional fiber content. Fruit with a high sugar content is milk powder, pulp. The final set. It is made by boiling the fruit pulp with approximately enough sugar to make it sufficiently thick to AGRICULTOR hold the fruit tissues in place. A minimum of 68% of the total soluble solids and 45% of the erged in 70% fruit part are present in a fruit jam.

#### ⇒ Wine

Wine made from bael fruit pulp is a novel alcoholic beverage that is high in antioxidants and has an opportunity of becoming a commercially available medicinal wine.

#### 🗢 Panjiri

It is made by roasting 1 kg of bael powder in 1 kg of desi ghee, then thoroughly mixing with 1.5 kg of sugar powder. You can

#### E-ISSN: 2583-5173



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also add a small amount of roasted wheat flour. This bael product helps with stomach problems and is very nourishing and rejuvenating.

### CONCLUSIONS

In India. the production and consumption of beal fruit offer a significant chance to address a number of socioeconomic and health-related issues. This fruit has the potential to make a substantial contribution to nutrition and food security. Additionally, they have therapeutic and traditional importance in the native medical system. This fruit offers a multitude of processing and marketing options for a variety of products. These products offer treatments for a range of illnesses in addition to increasing the variety of foods. We may use this fruit's domestic and international markets generate income by encouraging to its cultivation and value addition. **AGRICULTURE MA** 

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