

## Statement of case

Department of Horticulture under the banner of Department of Agriculture of Government of Maharashtra is established to help the rural community to achieve higher productivity in agriculture along with Profitability and Market access of the farming community in Maharashtra. This goal will be achieved by providing farmers with technical knowledge, market intelligence and market networks to support diversification and intensification of agriculture production aimed at responding to market demand. With this unique strategy, DOH has undertaken initiative for Beed Custard Apple in Beed district to get it registered as a Geographical Indication. DOH extended its support to 'Balaghat Sitaphal Sangh, Talegaon, Tal. - Dharur, Dist.-Beed' which is registered organization of custard apple growing farmers. The main object of this organization is to empower the Beed custard apple producing farmers in Beed District. DOH supported 'Balaghat Sitaphal Sangh, Talegaon, Tal.- Dharur, Dist.-Beed' to become an applicant for Geographical Indication registration of Beed custard apple.

Custard apple is sub-tropical land fruit also known as monkey fruit. **Custard apple is known as 'Sitaphal' in Sanskrit i.e. "sheet" means cold and "phal" means fruit.** Custard apple has cooling effect on human body and excess of its consumption may cause cold hence the name is 'Sitaphal'. Its Botanical name is 'Annona diversifolia Saff'. The custard apple is from 'Annonaceae' family of plant kingdom. **The custard-apple was introduced by the Portuguese into India in the Sixteenth century.** It was stated that, this subtropical fruit grew well in the Deccan Plateau.

Beed district in Maharashtra is situated on Deccan Plateau. **Beed is having ranges of Balaghat which are the most favourable place for the growth of custard apple.** Till the date, custard apple trees are flourishing naturally in Balaghat forest of Beed district without influence of scarcity of

water and lowland soil. The delicious, naturally grown custard apple from Balaghat ranges near Beed district have created its identity and maintained its popularity for more than 400 years. The area under cultivation of custard apple in the year 2012-13 of Beed district was **689.27 Ha**. Major custard apple producing areas in Beed district are **Kaij, Dharur, Manjarsumba, Ambajogai, Balaghat Ranges**. **The perfect round shape, attractive shiny green external fruit colour having pleasant texture and flavour, the distinct creamy white or yellowish color of inter-areolar wide space appearing on maturity** are the key features to identify the custard apple from Beed.

Custard Apple can grow on rocky, marginal and even waste lands. However, for the best yield, a well-drained fertile soil with neutral pH will be ideal. The plants are shallow rooted and hence a deep soil is not necessary. **The high potassium content and micro nutrient in the rocky terrain with shallow, gravelly, well-drained soil of Balaghat ranges around the Beed district, hot and dry temperature, less rainfall are more prominently responsible for Beed Custard Apple's unique and distinct taste.**

**The sweetness of Beed custard apple is more due to high Total Sugar (20.12%) and reducing sugar content (17.97%)** while other varieties are having less reducing sugar content - Mammoth (16.6%), Washington (15.7%).

**The Beed custard apple is heavy in weight and produces high quantity of pulp. The pulp is juicy, white creamy in colour and fleshy.** The high quality and quantity of pulp are the distinguishing features of the Beed custard apple.

The Beed Custard apple produces **177.99g pulp with less number of seeds approximately 24-50**. In general, the fruit contain **47.44% pulp** which is high

quantity of pulp as compared to other varieties like Mammoth (44.5%pulp), Washington (38.1% pulp), British Guiana (37.9% pulp).

**The weight of Beed Custard apple is 240 to 380g (378.38 g) while other varieties have Mammoth-183g, Red Sitaphal-231g, Washington-165g, British Guiana-181g.**

### **Morphological characters of Beed Custard Apple**

- Yield :10.89 Kg/Plant
- Weight of fruit: 378.38g
- Weight of peel:165.50g
- Colour of Pulp: Creamy white with high quantity
- Weight of Pulp:177.99g
- %of Pulp:47.44
- Number of seeds :47.44(24-50)
- Weight of seed:30.65g

### **Physio chemical characters of Beed Custard Apple**

- TSS- 24.49<sup>0</sup>Brix
- Reducing Sugar- 17.97%
- Non Reducing Sugar- 2.15%
- Total Sugar:20.12%
- Acidity- 0.24%

**The Beed custard apple is highly nutritive fruit having high value of carbohydrates (23.9%) and good source of protein (1.6 %) in its custard apple pulp.** The Beed custard apple is the high yielding variety having fruit yield per tree is 10 Kg to 50 Kg. The number of fruits per tree is 48- 60 while other varieties like British Guiana having fruits per tree is 35. **The nutritive value of custard apple carbonated beverages made from Beed custard apple is very high. It has carbohydrates (12.9%), protein (0.7%) and fat (0.18%).** The custard apple is highly perishable dry land fruit having 24 hours as shelf life after harvesting. The shelf life of custard apple pulp is near about 5-6 months when stored at -20 to 40<sup>0</sup>C. This variety is robust, disease resistant and sturdy. According to survey and surveillance of key diseases of custard apple in Marathwada region, it was observed that **only 0-5 % traces of Anthracnose found in Custard apple from Beed** while other districts like Jalna, Nanded, Parbhani have 5-20% traces of diseases. Beed custard apple pulp is used in desserts like **'Basundi', 'Rabadi' and Ice cream, Jam and Jelly.** The seeds, leaves and young fruits are insecticidal especially leaves juice kills lice.

Balaghat ranges of Beed district are naturally enjoying the exclusive reputation with respect of custard apple. Geographical Indication registration will protect the uniqueness of custard apple from Beed. G.I. registration will boost the export related to Beed custard apple. After branding with G.I. quality tag, it will promote economic prosperity of farmers which will ultimately help to increase financial condition of Beed. Registration of G.I. would ultimately lead to empowerment of farmers. Hence G.I. registration is required to improve the market access to custard apple. Therefore Department of Horticulture of Maharashtra supported **'Balaghat Sitaphal Sangh, Talegaon, Tal.- Dharur, Dist.-Beed'** to get G.I. for Beed custard apple. This will help farmers, producers, society and ultimately the nation. Thus it is our earnest and kind

request to The Registrar of Geographical Indication Registry to consider Beed custard apple for Geographical Indication Registration.