

Goma Yashi at farmers' doorstep

Introduction of bael cultivation in Gujarat was a great challenge, where people were least aware about its economic relevance and uses, health benefits and its nutritional significance. The research efforts of scientists of CHES, Godhra, led to the development of three varieties of bael, viz. Goma Yashi, Thar Divya and Thar Neelkanth. All of them are better from earlier developed varieties of bael in terms of tree vigour, yield and quality. They are rich in nutrition, antioxidant and biologically active phyto-chemicals, which add medicinal value. All these are performing well under rainfed areas of Gujarat, Rajasthan, Madhya Pradesh and Maharashtra. Of them, Goma Yashi has become very popular among farmers due to thornless, prolific-bearing habit with very high quality of fruits, and suitability for high-density planting. At present, Goma Yashi alone has occupied nearly 150 ha area in different states. Goma Yashi has also reached in Rajasthan, Karnataka, Tamil Nadu, Madhya Pradesh, Haryana, Punjab, Uttar Pradesh, Jammu and Kashmir and Andhra Pradesh. Various post-harvest products are practically demonstrated to farmers, particularly from Gujarat for adaptation and for popularization. The outcome of series of studies has considerable impact in changing the general thinking process of stakeholders towards the adoption of developed technologies on bael.

FOR popularization, the techniques developed were published in popular magazines, newspapers (Gujarati newspaper), radio and TV talk, leaflets, technical bulletins and exhibitions. Various farm visits of farmers and farm women were arranged. This has totally changed the mindset of farmers regarding adoption of technologies. Nowadays, the demand of planting material is increasing. Farmers have accepted the series of developed



Goma Yashi planted at 5m x 5m under rainfed semi arid condition

technologies on bael and are voluntarily coming forward to take the planting material to develop orchard for commercial production. The technologies developed are accepted by farmer, therefore, there is a rapid increase in area under bael in Gujarat, Madhya Pradesh, Punjab and Maharashtra than Rajasthan. About 105 ha area has been planted as block plantation under improved variety Goma Yashi, including 60 ha in Gujarat, 10 ha in



Field visit of farmers to experimental fields of CHES, Godhra



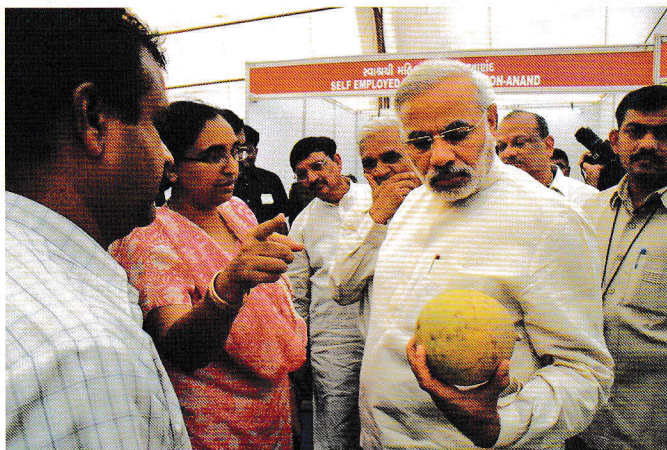
Demonstration of bael to the farmers and users during various activities at Godhra



Goma Yashi

With short stature, thornless, papery shell thickness (1.5 mm), its fruits have very less fibre content (1.75%), lesser seeds (60-70), very less mucilage content (7-10%), shell (11-13%) and high pulp content (74-77%). High pulp TSS (36-39°brix), TSS mucilage (41-45%), very less acidity (0.29-0.32%), less phenols in pulp (195.29 mg/100 ml) and mucilage (662.30 mg/100g) in rainfed hot semi-arid conditions make it very attractive. It possess deep yellow colour of peel and pulp with attractive and pleasing aroma.

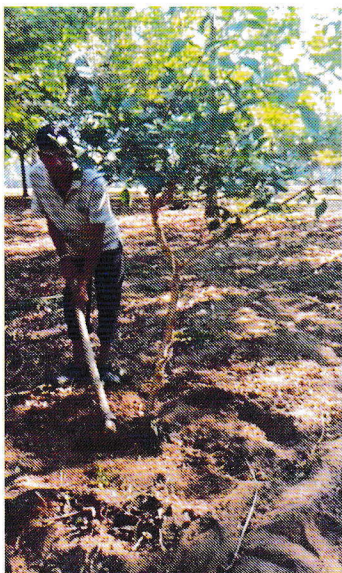
It is highly suitable for *sharbat*, squash, *murabba*, candy making as value added products. It yields 65.23 kg/tree with an average fruit weight 1.32 kg and fruit size 13.00 cm × 12.52 cm during 8 year under rainfed conditions. Owing to dwarf stature, it is highly suitable for high-density planting (5 m × 5 m), accommodating 400 plants/ha, and providing 240-280 quintals fruits. Block plantation of this variety has been done in Gujarat, Rajasthan, Madhya Pradesh, Punjab, Haryana, Chattishgarh, New Delhi, Maharashtra, Karnataka and Tamil Nadu at farmer's fields. Its planting material is in huge demand from all parts of the country by farmers, particularly from arid and semi-arid region.



Hon'ble Prime Minister the then Chief Minister of Gujarat appreciating bael variety Goma Yashi during Krishi Mahotsava, at Godhra on 20 May 2011



First bael sharbet centre in Panchmahals, Gujarat



Bael plantation at farmers field at Popatpur

Rajasthan, 5 ha Haryana, 8 ha in Madhya Pradesh, 2 ha each in Maharashtra, Punjab, Uttar Pradesh and Chhattishgarh owing to rigorous efforts made by the scientists. Total 130 farmers have brought planting material from the Station till now.

Successful Entrepreneurs

After seeing the performance of bael, Shri Ranchhodbhai Patel of village Dabhoda, in Gandhinagar, established 100 grafted plants of Goma Yashi at his farm in 2012. He started earning ₹40,000 fifth year onwards. Many farmers in surrounding areas are also inspired by seeing the performance of bael on his field. Now more demand is coming from farmers of Gandhinagar. At present, there is a demand of 25,000 plants from different parts of the country.

Sri Ramanlal Purani, Gayatri Pariwar, used to sell juice of bottle gourd, giloi, beet and jwara, in Godhra. Initially he did not agree about bael juice. One day he agreed to make the bael juice and started its marketing. He also started to sell bael *sharbat* ₹10/glass, earning ₹30,000 thousand in four months (March-June). Owing to intervention of CHES, Godhra, he is not only earning money and popularizing the bael in urban areas, but he has become the source of inspiration of opening other juice centre in Godhra. This first bael juice centre opened in Gujarat on commercial scale.

Bael products

Mrs Hansa Jain w/o Nirmal Jain, after being motivated by CHES, Godhra, started processing and development of value-added products of bael. At present, fruit concentrate of bael, squash and candy are being prepared and sold in the name of 'Perk Foods', at Balajinagar, Sanchor, Rajasthan. She is earning ₹1.0 lakh annually.