

BANANA FIG (DRIED/DEHYDRATED BANANAS)

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(K. N. Shiva, C. K. Narayana, M. Mayil Vaganan and K. Kamaraju)

Preamble

India is the largest producer of banana in the world, contributing 25 per cent to the global production. During the market glut, the excess production of banana can be converted into value added product to get more profit. Banana fig is a dehydrated fruit, prepared by ripening the immature or mature marketable and unmarketable fruits of banana. Figs are prepared by peeling, disinfection and dehydration in hot air oven or solar dryer and the product is stable up to 3 months at room temperature. The figs are tasty, highly nutritious and help in nutritional security by providing all the nutrients in banana fruits in the concentrated form. It can be adopted by small and medium scale entrepreneurs/ industries and can create rural employment opportunities. It is ready made energy food suitable for children, sports persons, army personnel and mountaineers. Now-a-days, banana fig is being prepared by using solar driers.

Advantages

- Cheaper than existing dry fruits available in the market.
- Dehydrated product can be stored up to three months.
- Helps in nutritional security by providing all type of nutrients (such as carbohydrate, vitamins, minerals and dietary fiber)
- Can be incorporated in many recipes such as cakes, custard, biscuits, *payasam*, *kesari* and ice creams as a substitute for raisin.
- Can be recommended particularly for School and Adolescent Children.
- Employment generation to rural youth, particularly to women sector.



Banana figs

Impact of Banana Fig

The training and transfer of technology for the product is available at ICAR – National Research Centre for Banana, Thogamalai Road, Thayanur Post, Tiruchirappalli – 620 102, Tamil Nadu. The product is highly suitable Self-help group for women (SHGs). Being delicious and tasty, the product is suitable for consumption to all age groups. NRCB has commercialized the technology to 20 entrepreneurs till date. There is an overwhelming response for the banana fig in the domestic market export markets.

Thottiam Banana Producer Group is one of the primary producers of banana fruits in an area of about 400 acres in Thottiam Panchayat, Tiruchirappalli District, Tamil Nadu. Thirteen banana growers jointly started a partnership company with their personal investment in June, 2014. The members of the group are of small and medium farmers, tenancy holders with an average land holding of less than one hectare wet land that are irrigated by cauvery river distributory canals. The major crops grown are banana, betelvine and paddy. An old tamil adage says ‘Wealthier grow banana, weaker grow gingely’ denoting the high investment and risk in banana cultivation. Presently the marketing system of banana is by produce contract and some of the leading farmers of the group themselves enter in to negotiations with the small holders to harvest and sell the bunches at the market prevailing rates in view of the high transport and harvesting cost to take it to the auction markets at Tiruchirappalli, Chennai and to the neighbouring states.

The harvesting activity stretches for three months during the season and any undulated market conditions directly hit the revenue of the banana grower. The climatic vagaries of wind, high day temperature, water shortage affects the yield resulting in forced ripening of banana further reduce the income of the farmer. The perishing nature of the fruit does not permit for storage and high volume of arrivals during season brings down the selling price level eventually.

It is in this context, M/s. Bayer Material Science Comapnay offered a project by name SUSTAIN, an excellent oppurtunity to convert the banana fruit in to solar dried banana fig, an unique cost effective value addition that will meet out our fruit production cost and manage the unsold and ripe bunches. Farmers themselves are highly enthused to bring the ripened fruit bunches to the project site and get agreed price credit thereby ensuring to avoid distress sale. However, the marketing of solar dried banana needs further improvisation on packaging, flavouring, coating as a basic need to compete with the leading consumer brands. Further scaling up the production capacity is also needed to cover volumes during harvest season. Our solar drier capacity is just 0.1% of daily arrivals. With the technological advancement on the cultivation front like drip irrigation, fertigation and availability of high-tech tissue culture seedlings, farmers take up demand driven cultivation throughout the year.



Preparation of solar-dried banana figs at Thottiam

Hence, the scope for solar dried banana is vast and lucarative. Vagaries of monsoon and three successive years of drought condition has weakened the financial status of the banana growers in our area. It has put us in to difficulty of mobilising farmers investment in to the solar drier project that has made them to seek the support of the funding agencies. In a nutshell, this project has opened up more avenues for value addition of farm produce like fruits, vegetables,

herbs and coconut by using a state of the art green house solar dehydration unit without any loss in nutrient values and free from contamination.

Taking cue of the commercial opportunities of this project and the request made by our company, Government of TamilNadu has announced 100 solar dehydration units with 50 percent subsidy to all the commodity grower groups to enter business ventures in different clusters. We have scaled up the capacity of Thottiam project to an extent of processing 12,000 fruits per batch (5 batch cycle per month on an average) to roll out 1.2 M.T. of dry fruit a month. By taking up value addition of our traditional banana varieties like Poovan and Karpooravalli, a new dawn of dry fruit making that is likely to impress and create a change in the food habits of the general public.

Salient features of the Project

- 1) Farm Harvested fruits are cleaned graded and sorted for scientific ripening using climate controlled ripening chamber to ensure uniform ripening and extended shelf-life.
- 2) The drying unit is the state of the art solar drier PV fan ventilated and UV screened polycarbonate dome providing maximum drying efficiency.
- 3) The Technical protocol and production training provided by ICAR - National Research Centre for Banana (NRCB), Tiruchirappalli, Tamil Nadu.
- 4) The Basic Raw Material, banana bunches are maximum sourced from the group members, who are the primary producers of native banana varieties.
- 5) The company has a marketing tie-up with Tamil Nadu Banana Producer company and Amazon.in to have a wide customer base. (Brand - YUMMY BANANA from Madhur Fruits).
- 6) The Project commenced its commercial production by July 2014 with the investment of Rs. 35 lakhs and turned over 14 lakhs business since three years. Twelve people are employed in the group.
- 7) The diversified products of banana figs are also available in AMAZON.IN making the products available to PanIndia consumers.



Commercialized products of Madhur Fruits (solar dried banana fig)

M/s. Thottiam Banana Producers Group, Thottiam, Tiruchirappalli District, Tamil Nadu engaged in producing and marketing of solar dried banana fig received the 'Best Entrepreneur Award: 2014' from ICAR-NRCB, Tiruchirappalli on 21st August 2014 for its contribution to the Society and Food Processing Industry as well.



The Members of Thottiam Banana Producers Group receive 'Best Entrepreneur Award - 2014'