By threshing and saving 20 kg pods, approximately 5 kg fine mesocarp is obtained which is used for processing "Juli coffee". This fine mesocarp powder is roasted at 250°C for half an hour in a preheated oven with intermittent mixing. The powder thus obtained is matched with a score card to determine end points. Roasted powder thus obtained is blended with 20% original roasted coffee powder. After mixing original roasted coffee powder, 10% chicory powder is mixed in this mixture. Thus, 70% (roasted coffee powder), 20% (roasted chicory powder) and 10% (roasted mesocarp powder) are mixed in this mixture. The roasted powder thus obtained is matched with a score card for half an hour in a preheated oven with intermittent mixing. Juli coffee (Instant Coffee)

Background

P. juliflora is found in abundance in arid and semi-arid tropical of India. The plant is locally known as Angrez Babool/Vilati Bawaliya in Rajasthan, Ganda Bawaal in Gujarat; Vilathi Kikar in Haryana and Karuvali/ Velikaruvi in Tamil Nadu. The species produce pods from December to May which are highly liked by livestock. Once introduced in Rajasthan as a "Royal tree" in early 1930s, today it is considered a disaster in many quarters ago.

Benefits / Utility

It gives the same taste, color and aroma as instant coffee (Arabica or Robusta) but with reduced caffeine content.

Country Context

India

Scalability

Yes, technology has all the elements of scalability however, current scale of operation is limited to production of laboratory of NAIP sub-project "value chain on value added products derived from P. juliflora". For obtaining best and highly soluble "Juli coffee" the mixture obtained as above is dissolved in water (8 g of 100 g mixture in 200 ml water and filtered. In this way 90 g "Juli coffee" powder is obtained which is freeze dried for 9-10 hours. After completing this process 70 g best quality "Juli coffee" is obtained.

Business and Commercial Potential

Business Potential: It is estimated that minimum one third of Indian population likes coffee as a beverage at around 40 crore people. Considering 25% of these people would like to have low caffeine coffee, market available=10 crore people. Considering 2 gm per day consumption by each of these people translates into 385*2=730 gm per year. Total likely consumption=0.73*10 Cr=73000 MT. Average number of players, the market can sustain=73000/1460=50. Energy Requirement: Electricity =

Limiting factors for large scale commercialization

As the product is for human consumption therefore, all the necessary clearance required for processing food items will be essential. If State Government follows a policy of managed plantations of P. juliflora on otherwise un-cultivable lands, the abundant raw material could be available after 5-6 years of the initial plantations dates. The Charcoal production for which the species is being used in many states will convert good plantation stands in to weedy growth, which will have very negative effect on pod production and as well as on environment. This is an issue to be looked very serious.

Social impact of the technology

Pod collection and selling will provide an alternative source of livelihood to farmers. If machinery for primary value addition technology in form of threshing and grining of pods can be provided to the farmers that would generate extra employment to farmers in their villages. In waste lands the species can be grown (Rajasthan state Government has already made policy in this respect) for environmental amelioration and as well as for pod production. Ample opportunities will be available from unskilled to skilled workers in "juli coffee" processing units.