

**Central Food Technological Research Institute**  
**Mysore – 570 020**

**Green Tamarind Spice mix - Paste and Powder**

**1. Introduction:**

India is the main producer and consumer of tamarind in the world. It is estimated that India produces about 30,000 MT of fruits and exports tamarind products worth Rs. 50 crores per annum. Tender green fruits of tamarind are very acidic, and used to a limited extent to prepare tamarind 'tokku'(a traditional food adjunct) & pickles, in south Indian states. Some of the draw backs of traditionally prepared 'tokku' paste are:

- Low shelf life of the prepared paste
- Microbial spoilage of the base stock material
- High salt content in the product
- Quality variation

Hence the main utility of this process lies in providing a traditional condiment in a convenient and shelf stable form thereby avoiding kitchen drudgery and offering for industrial production in a hygienic way and with standard quality throughout the year. This product is a ready-to-use preparation that can find application in homes, restaurants, institutional catering and in industrially processed foods.

**2. Raw material and packaging materials**

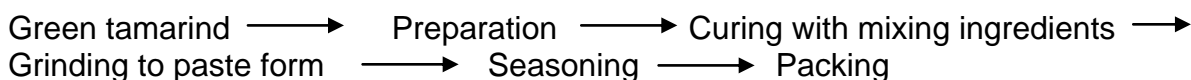
Fresh right mature green tamarind is the major raw material required. The other raw materials required are common salt, turmeric and fenugreek and permitted acidulants and preservatives. Suggested packaging materials are glass bottles with the lug cap.

**3. Plant and Machinery:**

**Principle equipments:** SS kettles, Hammer mill, Planetary mixer, Ribbon blender etc.

**Auxiliary equipments:** Weighing scales, Preparation tables, SS tanks, Plastic carboys, trolleys etc.

**4. Process in brief:**



**5. Project Cost – Fixed Cost – Working Capital (Rs. '000)**  
**(Estimate for a model project)**

|    |  |                |
|----|--|----------------|
| a) | Land & Land development (400 m <sup>2</sup> )  | 400.00         |
| b) | Building and civil works (240 m <sup>2</sup> ) | 1350.00        |
| c) | Plant and machinery                            | 858.00         |
| d) | Auxiliary Equipments                           | 656.00         |
| e) | Miscellaneous fixed assets                     | 80.00          |
| f) | Pre-operative expenses                         | 228.00         |
|    | <b>Total Fixed Capital</b>                     | <b>3572.00</b> |
|    | Working capital margin                         | 422.00         |
|    | <b>Total Project cost</b>                      | <b>3994.00</b> |
|    | Short term loan towards WC                     | 825.00         |

Means of Finance

|                           |         |
|---------------------------|---------|
| - Promoter's contribution | 1696.00 |
| - Term loan               | 2298.00 |

**4. Production Capacity-(estimate)**

|                              |   |
|------------------------------|---|
| Suggested economic capacity: | 1350 kg green tamarind spice paste and<br>300 kg green tamarind spice powder/ day       |
|                              | 405 MT green tamarind paste spice paste and<br>90 MT green tamarind spice powder/ annum |
| Working:                     | 1 shift/day<br>300 working day/ annum (bottling basis)                                  |

**6. Technology / Manufacturing Process -Availability**

The technology for processing of Green Tamarind Spice mix - Paste and Powder has been developed at CFTRI, Mysore using appropriate equipment optimal product recovery of right quality. The institute has the necessary expertise to provide technical assistance and guidance for setting up the project and implementation, under technical consultancy arrangements.