

## **Central Food Technological research Institute, Mysore – 570 020**

### **Sweet Potato Soup Mix**

#### **Introduction:**

Sweet potato is among the world's most important and under-exploited tuber crop with immense health benefits. Sweet potatoes are good sources of vitamins C and E as well as dietary fiber, potassium, and iron, and they are low in fat and cholesterol. It serves as an important protein source for many world populations and is an important source of starch and other carbohydrates the human body needs. Wheat flour that is commonly used in soup mix can be replaced by sweet potato flour to avoid gluten intolerance.

As a climate-resilient crop that can address malnutrition, sweet potato production assumes significance across the world. In India, though sweet potato production is largely focussed on food and nutritional security, efforts to promote value addition of the crop have been initiated. Sweet potato cultivation in India is declining due to the lack of processing industries

It would be very advantageous if sweet potato products are developed and made available throughout the year. Sweet potato soup powder can be produced by drum drying using the pulp with appropriate product formulation and process parameters.

Sweet potato soup mix can be stored for more than 6 months in metallized polypropylene pouches. This soup powder can be used to make instant soup within minutes. This product is currently not available in the market.

#### **Raw material:**

#### **Specifications :**

The mature roots or tubers of sweet potato with pink colour peel and having pale yellow or orange are used by cutting damaged part . Sweet potato with orange pulp are more nutritious than pale yellow pulp. They contain more fibre and beta carotene in them. The production of sweet potato in India is ~1.4 million tonnes. Orissa is the largest producer of sweet potato followed by Kerala. Other raw materials required are spice mix, milk protein, acidifying agents etc. The required packaging materials are available in major cities. Mostly soup mix are packed in unit laminated aluminium foil pouches and stored at room temperature (25-30<sup>0</sup> C) for 3 months.

**Plant and machinery:**

**Principal equipment:** Autoclave, Crusher, Colloidal mill, Sealing Machine and Drum Drier

**Auxiliary equipment:** Boiler, Weighing Scale, SS Working tables, Vessels, Knives, etc.

**Project cost – Fixed cost- Working capital (Estimate for a model project)**

- Plant Capacity: 2.4 MT per day
- Plant and Machinery: Rs. 19.72 lakh
- Preoperative expenses: Rs. 1.20 lakh
- Working capital: Rs. 5.00 lakh
- Total Project Cost: Rs. 25.92 lakh

**Production capacity- (estimate)**

- Product: Soup mix
- Working days: 200 days / annum
- Installed capacity: 2.4 MT per day
- Optimum capacity utilization: Production capacity is estimated for 16 h of operation.