

**CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
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MALTED RAGI FLOUR – ENZYME RICH

INTRODUCTION:

Finger millet or ragi is one of the important minor cereals of India and Africa. It has the uniqueness of being used for malting next only to barley in the tropical world. The millet is a good source of dietary carbohydrates, protein, calcium and micronutrients and hence, its malt is also a good source of protein, carbohydrates and many other nutrients besides hydrolytic enzymes.

Malted ragi flour can be used in preparation of weaning food, infant food, geriatric food, medical foods and also as milk based as well as alcoholic beverage formulations. It can be used as amylase rich food (ARF) to reduce the 'dietary bulk' of energy food and such other supplementary foods. By products like seed coat & rootlets can be utilized in Cattle and Poultry feed formulations.

The malt flour can be packed in 25, 50 and 100 Kg units of HDPE bags and should be covered with gunny of proportionate capacity. Alternately the malt flour can be packed in poly-lined woven sacs. However for retail outlets HDPP and HDPE pouches of 500 gm, 1 Kg and multiples of it may be used. Care should be taken to use food grade polyethylene and the use of colored material should be avoided.

RAW MATERIAL

Finger millet (Ragi)

PROCESS:

Finger millet → Cleaning → Soaking → Germination → Drying → De-vegetation → Green malt → Kilning → Moist conditioning → Grinding → Sieving → Malted ragi flour

EQUIPMENTS:

Major equipments are De-stoner with elevator, Steeping tanks, Germination trays, Dryers, De-rooter, Dampner, Grinder, Vibro-sifter, Powder filling unit.

ECONOMICS OF PROJECT (Approximately):

Capacity of Plant:	750 MT / Annum (Malted ragi flour)
Land (3000 M ²)	4.00 Lakhs
Building (975 M ²)	24.25 Lakhs
Other fixed assets	2.50 Lakhs
Preliminary / Preoperative expenses	7.37 Lakhs
Cost of plant/equipment:	43.15 Lakhs
Fixed cost	81.27 Lakhs
Working capital (margin)	5.39 Lakhs
Total Project Cost:	86.66 Lakhs