

PRODUCTION OF NATURAL ORYZANOL CONCENTRATE FROM RICE BRAN OIL FOR NON FOOD APPLICATIONS

1. Introduction:

The present process entitled “Process for the Production of Natural Oryzanol Concentrate from Rice Bran Oil for Non-Food Applications” is aimed at concentrating oryzanol by a solvent less process and recovery of spent oil for edible purposes. In this process, natural oryzanol concentrate has been prepared starting from physically refined rice bran oil or crude rice bran oil through controlled alkali treatment and having greater than five fold (2-3 fold for oryzanol butter) enrichment in oryzanol for use in non – food applications.

2. Use:

The product is meant for use as a minor supplement in non-food applications such as in pharmaceutical and cosmetic purposes

3. Raw Material:

Physically refined rice bran oil, degummed and de-waxed crude rice bran oil

4. Plant & Machinery:

Treatment vessel with stirrer, Vaccum shelf drier, SS Kettle with stirrer

5. Project Cost – Fixed Cost – Working Capital (in Rs.‘000)

(Estimate for a model project):

a)	Land & Land development (690 m ²)	100.0
b)	Building and civil works (230 m ²)	576.0
c)	Plant and machinery	1096.0
d)	Auxiliary equipments	50.0
e)	Other fixed assets	150.0
f)	Pre-operative expenses	284.0
	Total fixed capital	2256.0
	Working capital margin	511.0
	Total Project cost	2767.0

Means of finance:

- Promoters contribution	691.75
- Term loan	2075.25

6. Production Capacity- (estimate):

Suggested economic capacity: 250 kg of oryzanol butter, 50 kg of oryzanol concentrate

Working: 300 days per annum

7. Technology/Manufacturing Process – Availability:

The technology for Natural Oryzanol has been developed at CFTRI, Mysore, using appropriate equipment for optimal product recovery of right quality. The CFTRI has the necessary expertise to provide technical assistance and guidance for setting up the plant. CFTRI can offer further technical assistance for project implementation for scale up - of advisory nature under technical consultancy services.