

NUTRI BEVERAGE IN GLASS BOTTLES

Introduction:

In many countries, the normal diet might not essentially provide optimal levels of vital minerals and nutrients. Recent evidence suggests that nutritional zinc deficiency is common among the people of many developing countries where they subsist on diets of plant origin (e.g. cereal and legume). Many mineral deficiencies can be overcome by taking supplements. One practical approach would be to design a beverage composition fortified with a nutritional amount of minerals, which has palatability while preserving the bioavailability of the metal ions. Drinking water, as opposed to a beverage, should contain water as its main ingredient with the taste and appearance of water. Fortification of drinking water with soluble, stable and bio-available minerals (e.g. iron, zinc) has been a challenge. In view of the above a process has been envisaged and developed for preparation of packaged nutritive beverage in glass bottles.

Raw materials and Process:

Water, minerals, vitamins, acidulants etc.

PLANT AND MACHINERY:

Mixing tank, Steam jacketed tank with stirrer, sparkler filter, bottle washer, bottle unscrambler, bottle conveyor, bottle filling machine, bottle crown capping machine

Production capacity:

1000 bottles (180 ml)/ hour working 16 hours/ day

Working: 300 days per annum

PROJECT COST – FIXED COST – WORKING CAPITAL (in Rs.‘000)

(Estimate for a model project)

a. Land & site development (750m ²)	750.00
b. Rented building (300 m ²)	3000.00
c. Plant and machinery	2300.00
d. Auxiliary equipments	1345.00
e. Miscellaneous fixed assets	800.00
f. Pre-operative expenses	500.00
g. Total fixed Capital	8695.00
Working capital margin	1400.00
Total Project cost	10095.00

Means of Finance:

- Promoter's contribution	2523.75
- Term loan	7571.25
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TECHNOLOGY/MANUFACTURING PROCESS – Availability

CFTRI has standardized the technology and general methods of processing of Nutri beverage in glass bottles. Apart from this procedure for quality control, packaging and packaging material specifications, equipment details are also provided by the institute.