



ACIDO WHEY

TECHNOLOGY OFFER

Whey is a liquid product separated out from milk in the preparation of paneer and cheese. The whey contains 6 to 7% of total solids comprising of approximately 70% of lactose, 0.9% of protein and trace amount of water soluble vitamins, minerals and fat. So far the whey is considered to be a waste product in the dairy industry but process has been developed to produce a healthy drink from this waste material. This beverage unlike the other carbonated beverages which are of little usefulness, has following advantages:

- i) It has a good nutritional value
- ii) It has therapeutic values namely
 - a. Protection against gastro-intestinal disorders
 - b. Bio- availability of vitamins
- iii) It has three weeks shelf life under refrigeration.
- iv) It is much cheaper in cost compared to the other known and available beverages or, carbonated drinks.

PROCESS

The process for manufacturing Acido- whey soft drink consists of the following steps:

1. Collection of whey and its standardisation

The whey obtained from cheese and paneer making is passed through the cream separator to remove fat and then heated to the appropriated temperature, cooled and is fed to incubation tank pre-adjusted to the specified temperature.

2. Culture preparation

Whey is sterilised by heating for specified time followed by cooling and inoculated with required amount of pure culture of the required species grown in litmus milk. It is further inoculated for the preparation of intermediate and bulk culture in the same manner.

3. Fermentation process:

The cold heat treated whey is inoculated with a pure and active culture at a desired level. After inoculation when the acidity of the whey reaches at the desired level the fermented whey is cooled and filtered through the filter press.

4. Fortification with sugar and flavour

Filtered fermented whey is first fortified with sugar in the form clear sugar syrup and then flavoured with the combination of pineapple and orange essence at the required level. No colour is added in the product as the colours are not stable in the product due to low pH of the finished product.

5. Packaging and storage:

The prepared whey beverage is cooled and then it is filled in polypacks or glass bottles which are crown corked after filling, if intended for immediate consumption. For increased shelf life of product, beverage should be pasteurised before packaging or alternatively pasteurised in the container.

NRDC

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PLANT PARAMETERS

Capacity, lit/Year	1000
No. of shifts / day	3
Working days / Yr	300
Covered Area, m ²	200

MANPOWER

Skilled	4
Unskilled	3

RAW MATERIAL

Whey,	pouches
Sugar,	
Essence	
Culture,	

UTILITIES

Power, KwH	
Process water, KL	
Raw water, KL	
Fuel (LDO), KL	

PLANT & MACHINERY

Fermentation vat	Filtration unit
Mixing tank, ss	Filling m/c
Boiler	Storage tanks
Paneer vat	Cold storage



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