PREPARATION OF DAHI (CURD)

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HISTORY

- Dahi has been an extremely popular fermented food in the Indian subcontinent which includes India, Pakistan, Bangladesh, Nepal, Sri Lanka etc. This product figures prominently in the ancient Hindu scriptures. The medicinal value of the product has been well documented.
- Dahi may be consumed directly either sweetened or salted and spiced. It is also consumed with other foods such as rice and chapatti (wheat loaf). Dahi has assumed a special place in the Indian population, who prefer to take dahi once or twice a day along-with morning or evening meals.

Define

- As per PFA rules (1976), dahi or curd is a product obtained from pasteurized or boiled milk by souring natural or otherwise, by a harmless lactic acid or other bacterial culture.
- Dahi may contain additional cane sugar and it should have the same percent of fat.





Microflora of dahi

- The starters of khatta (jaman) used for the preparation of dahi is a mixture of lactococci and lactobacilli. The organisms commonly found in the inoculums are L. Lactis subsp. Cremoris, L. Lactis subsp. Lactis, S. Thermophilus, L. Acidophilus, L. Delbreuckii subsp. Bulgaricus and I helveticus.
- A good quality dahi is of firm and uniform consistency with a sweet aroma and clean acid taste. The surface is smooth and glossy and a cut surface is trim and free from cracks and air bubbles

Composition

The composition of dahi depends upon the type of milk used and the manufacturing conditions. Following is average composition of dahi made from buffalo milk.

| Water (%) | : 85 – 88 |
|----------------|---------------|
| Fat (%) | : 5 - 8 |
| Protein (%) | : 3.2 - 3.4 |
| Lactose (%) | : 4.6 - 5.2 |
| Ash (%) | : 0.7 - 0.75 |
| Lactic acid (% |): 0.5 - 1.0 |
| Ca (%) | : 0.12 - 0.14 |
| P (%) | : 0.09 - 0.11 |

<u>Classification</u>

- 1. For direct consumption
- 2.For churning in to desi butter

According to uses :-

- I. Dahi for direct consumption
- II. Dahi for production chakka, shrikand, lassi, and butter milk
- III. Dahi for the production of desi butter, ghee.







Continue...

According to consumption

1.Whole milk dahi

2.Skim milk dahi

3.Toned milk dahi

4. Standardized milk dahi

5. Dahi from special milk

According to flavour

Sweet dahi (acidity not more than 0.7%)
Sour dahi (acidity not less than 0.7%)
Sweetened dahi
Fruit dahi

Method of production(Sweet/sour dahi)

Traditional method

- Boiled the milk then cooled at body temp. Then inoculated with 0.5-1%starter and then allowed to set undisturbed overnight.
- In cooler weather, the dahi-setting vessel is usually wrapped up with woollen cloth to maintain warmth.

Standardization method

Receiving of milk Preheating (35 - 40° C) Filtration/Clarification Standardization - (Fat: 0-5%, SNF: 11-13 Preheating (60° C) Homogenization Heat treatment (90° C/10min) Cooling to 30° C) Addition of Starter cultures (1 - 1.5%) Packaging Incubation (30° - 37° C/6-8hr) Dahi Cooling and storage < 5° C

<u>Method of production of sweetened</u> <u>dahi</u>

In the eastern region of the country, especially in West bengal a sweetened variety of dahi known as misti payodhi (the trade name of one particular manufacture in Calcutta) is quite popular. It has a characteristic brown colour, a cooked and caramelized flavour and a firm body. It is pre- pared commercially by adding 6.25 per cent cane sugar to milk (cow or mixed) either before boiling or at the time of setting.



Market quality of dahi

- **Define:-** The desirable qualities in dahi offered for sale for direct consumption.
- Colour Yellowish creamy white for cow and creamy white for buffalo milk
- Apperance smooth , glossy surface , creamy layer
- Flavor Mild , pleasant smell , clear acid
- Acidity 0.75 to 0.85

Packaging and storage

The traditional container for dahi is an earthenware cup. However, modern packaging includes glass bottle and plastic/plastic-coated cup. The recommended storage temperature is around 5-10°.







Keeping quality of dahi

- Keeping quality:- When prepared in the conventional manner, dahi has a short keeping quality at room temperature; on prolonged storage, it becomes highly acidic; this is accompanied by whey formation, making the product unfit for human consumption. Under refrigerated storage (5-10°C), it usually keeps well for a maximum period of one week.
- Increasing keeping quality:- Efforts to increase the keeping quality of dahi at room temperatures have led to the development of a "carbonated product which has a storage life of 15-30 days without refrigeration. It is prepared as follows: good-quality

Sources and reference - Outlines of dairy technology by su kumar de And Google https://images.app.goo.gl/1aUApyhHxVNBwpww5

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