



INDIGENOUS FERMENTED MILK PRODUCT USING LOCAL OLD DAHI

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Introduction

- Dahi making is an indigenous knowledge of the people in the Mountain Everest areas since yak, sheep and other milking animals were domesticated in the regions.
- Dahi is a fermented milk product using old dahi as culture. This is a product like yogurt which is served as an appetizer, dessert and drink.
- Dahi is a part of the culture of the Mount Everest region where people are using the dahi in local festivals and social gatherings.
- Study of suitable indigenous knowledge is important for the benefit of humankind.

Objective

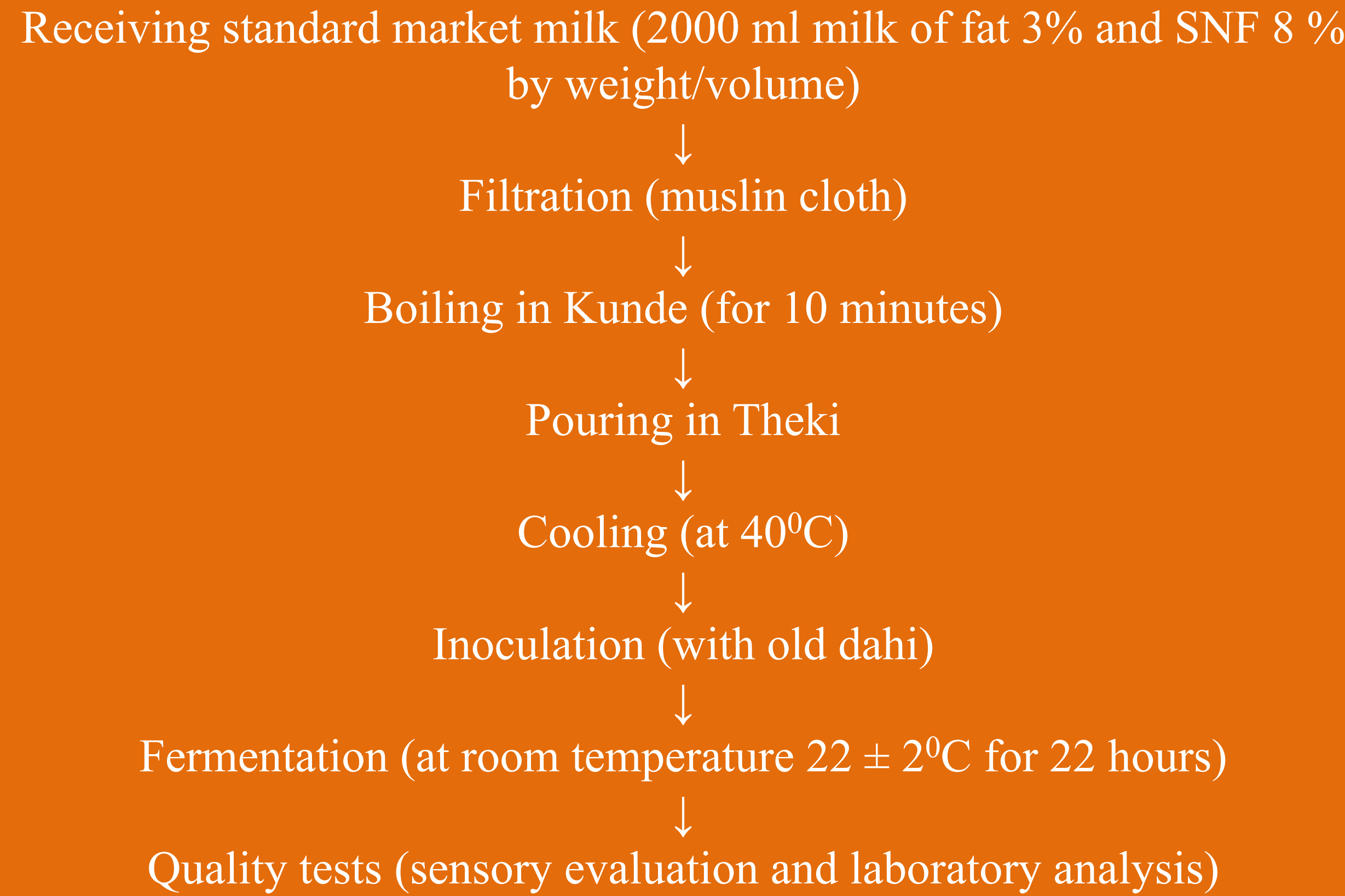
- To study usefulness of old dahi as a culture for milk fermentation.
- To optimize milk fermentation conditions using old dahi as a culture
- To promote traditional art in the given conditions.



Method and discussion

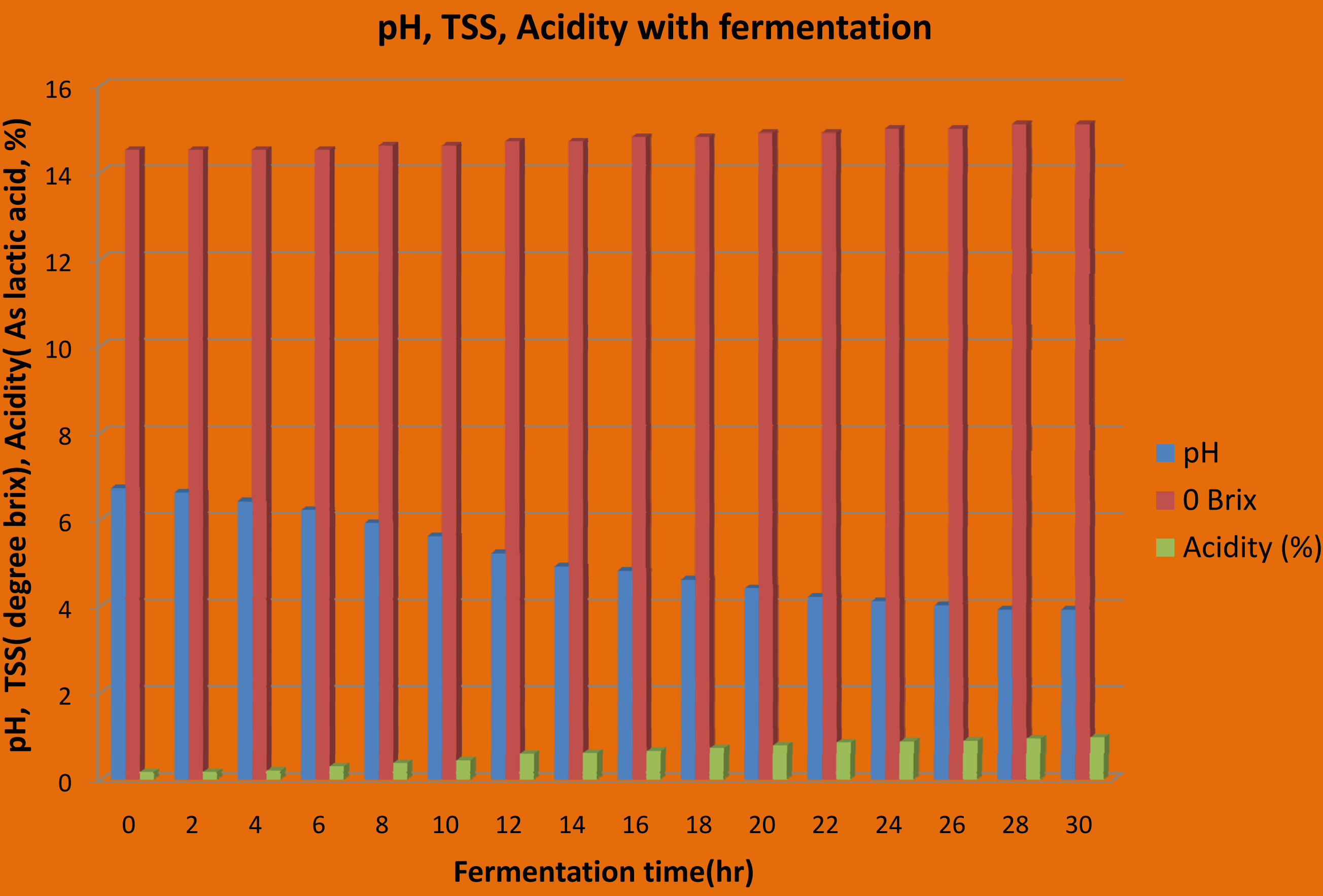
- Milk (2000 ml) was boiled, filled in clean theke(wooden pot), cooled at 40°C, added old dahi as culture and incubated in room temperature (22 ± 2) for 0 to 30 hours.
- The research was designed in such a way so that fermentation time was optimized at a time and then with various inoculums size the fermentation of the process was optimized.
- The final fermented milk product was used to measure pH, % acidity (as lactic acid), % total soluble solid (TSS).The dahi was used for sensory evaluation with trained and consumers as panelists. The obtained hedonic scale scores of the attributes (taste, aroma and

Process flow sheet of fermented milk

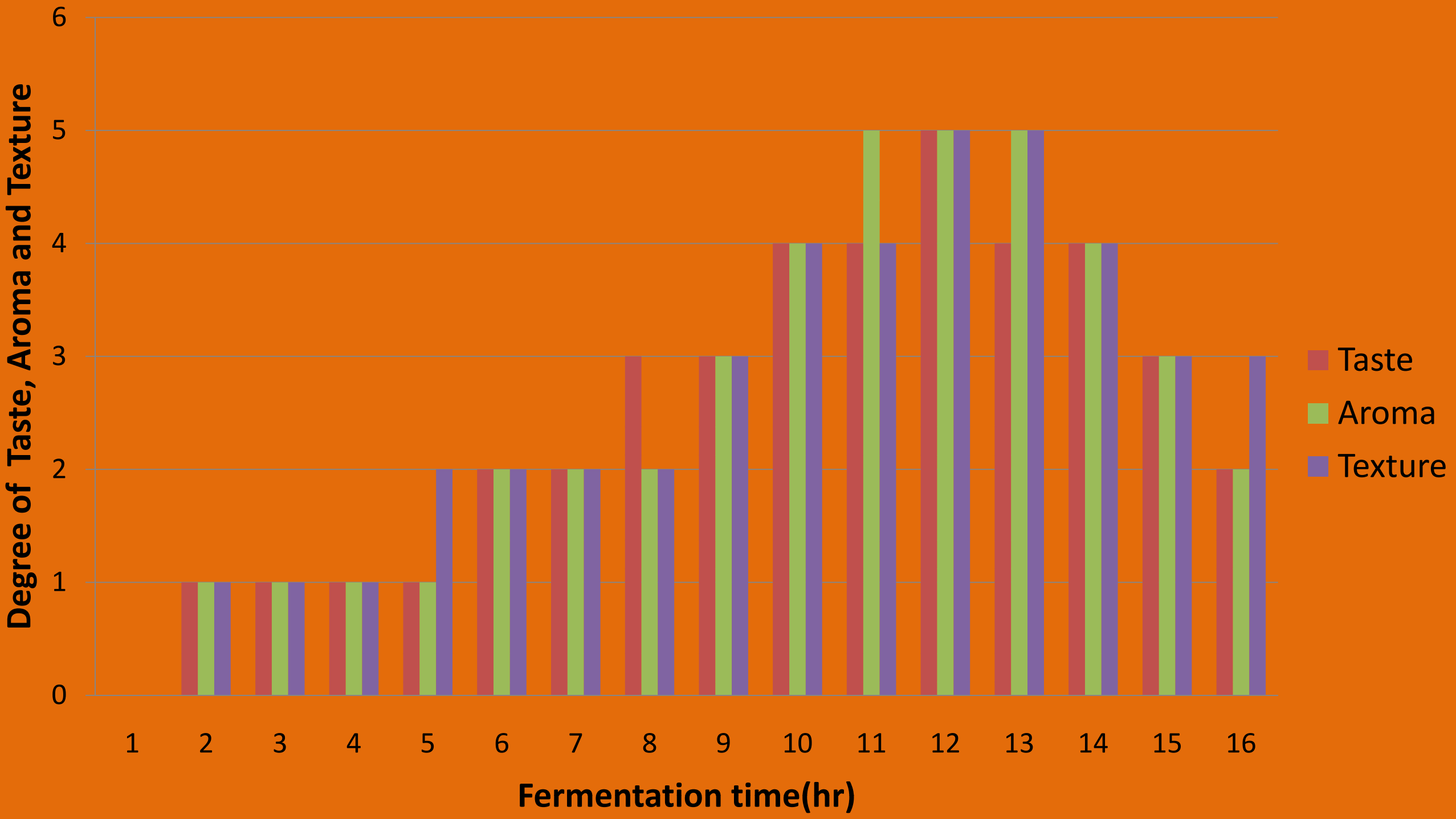


Result and discussion

- In figure 1 and 2, there was obtained best quality of aroma, texture and acidity in 22 hours fermentation in room temperature (22±2°C).
- Fermented milk can be prepared using 2000ml of milk 200 ml old dahi as inoculum for 22 hours fermentation that creates pH 4.2, TSS 15.0 degree brix and titrable acidity 0.85% (as lactic acid) that has excellent aroma, taste and texture for the dahi.
- This type of dahi can be prepared anywhere in rural areas using old dahi as a culture where environmental conditions cannot be controlled.



Sensory attributes with fermentation



Conclusion and recommendations

- Best quality dahi was obtained using 200 ml old dahi as inoculums for 22 hours fermentation time at room temperature (22 ± 2°C).
- The best quality of dahi contains excellent aroma, taste and texture as best consistency of the product.
- The physical parameters as total soluble solid 15.0 degree brix, acidity 0.86 % (as lactic acid) and the pH 4.1 were measured in the fermented dahi.
- Research on dahi should focus on the development of consumer's health and desire with longer shelf life product.
- Identification, isolation, storing of the natural microbial mix culture is also important so that it would promote the dahi making process in future.
- Dahi making process should be optimized for future application and further promotion.
- Products diversification and promotion of information about the dahi health benefits should be continued.
- There is a need of study of dahi on reduction of cholesterol, protection against certain cancers, and even boosting the immune system.
- Nutritional aspects of dahi should be more thoroughly investigated.

Reference

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