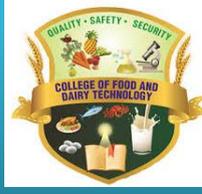




Development of Flavoured Yoghurt with Orange peel shreds

Emima Christial S, Nadihya N, Mathanghi S.K, Kumaravelu N

Department of Food Processing Technology,
College of Food and Dairy Technology, Chennai-600052
Tamil Nadu Veterinary and Animal Sciences University
Email: emimachristial2534@gmail.com



Introduction:

The incorporation of natural additives in food products has gained significant interest due to the increasing demand for functional and health-promoting foods. This study focuses on the development of the flavoured yoghurt with orange peel shreds, a natural ingredient known for its antioxidant, antimicrobial, and flavour-enhancing properties. The aim was to evaluate the effects of incorporating varying levels of orange shreds into yoghurt and assess its impact on the final product physicochemical, microbiological, and sensory characteristics.

Methods:

The orange shreds (*Citrus indica*) were blanched to remove the excess astringency content and treated in the hot boiling sugar syrup for 5 minutes. Then the shreds are filtered and partially dried at room temperature (32°C) for 4 hours. The levels of incorporation of orange shreds were studied at (5 %, 10 %, 15 % and 20 %).

Flow chart for Yoghurt with Orange peel shreds

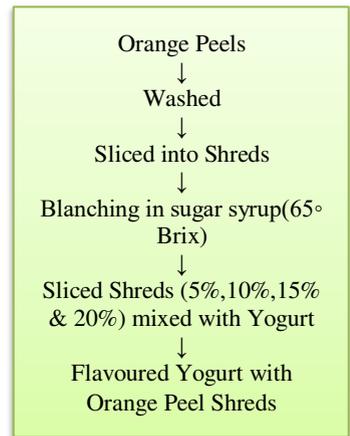


Fig: Blanching of orange shreds

Fig. Mixing of Shreds in yogurt

Conclusion:

The samples were stored at 4°C and analysed over 21 days for pH, syneresis and sensory attributes. Sensory evaluation showed that yoghurt with 10 % orange peel shreds had the highest acceptability, balancing the citrus flavour with the natural tartness of the yoghurt. Further studies to evaluate the long-term stability of the orange peel shreds in yoghurt presents a viable approach to enhance the functional and sensory properties as well as addresses the waste utilisation.

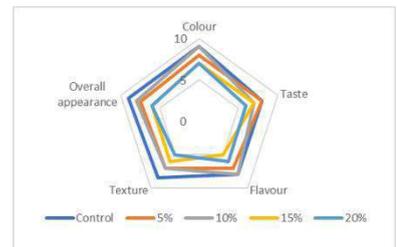


Fig. Standardization of yogurt with orange shreds at various level (Control,5%,10%,15%,20%)

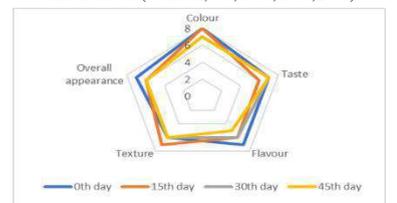


Fig. Sensory analysis of 10% yogurt with orange peel at different days (0 -45th days)

Result:



Fig : Orange peel shreds on yogurt

Reference:

1. Gray C (2007). Yogurt and your Health. Star Base Publication, Washington, pp. 6-8
2. Saint A, J uteau A, Atlan S, Martin N, Souction I (2006). Influence of Proteins on the Perception of Flavoured Stirred Yogurts. J. Soc.Dairy Technol. 30:31-32
3. Sharma, K., Mahato, N., Cho, M. H., & Lee, Y.R. (2017). Converting Citrus Wastes into value-added products ,34: 29-46

Acknowledgement:

I would like to greatly acknowledge the Dean, Professor & Head, Professor, and Assistant Professor of CFDT for providing facilities to carry out the research work.