

# Study on qualitative attributes of RTS beverage of mixed fruit using bael and orange under different storage conditions

Devendra Kumar, R.N. Shukla and Sanjeev Kumar

Experimental studies were conducted for the production of bael and orange based RTS beverage and its quality evaluation. The quality attributes comprised of acidity, pH, optical density, TSS, ascorbic acid, total plate count and sensory quality parameters on 9- point hedonic scale. Evaluation of quality parameters were done for fresh as well as stored RTS samples at 0, 15, 30, 45, and 60 days of storage under different storage conditions. The TSS and acidity of bael and orange RTS beverage increased with increase in the level of bael juice, the optical density increased with increase in the level of orange juice ratio. The pH decreased with increase in the level of bael juice. The pH values of the samples composition 60:40, 50:50, and 40:60 after 60 days of storage period were observed as 2.00, 2.00, 1.45, respectively at refrigeration conditions. The total plate count (TPC) of the RTS samples of different bael and orange juice ratio of 60:40, 50:50 and 40:60 were observed as  $1.078 \times 10^5$  cfu/ml,  $1.068 \times 10^5$  cfu/ml and  $1.061 \times 10^5$  cfu/ml at refrigerator temperature condition. The microbial growth increased during storage period irrespective of bael juice ratio at different storage conditions. The vitamin C (ascorbic acid) of the RTS samples were decreased during storage period. The minimum ascorbic acid of the sample of juice ratio (bael and orange) 60:40, 50:50 and 40:60 after 60 days of storage were observed as 4.70, 4.29 and 4.08, respectively at refrigeration conditions. The higher score of overall acceptability was 8.225 for the fresh samples and the minimum scored awarded for overall acceptability was 6.600 for the RTS sample bael and orange juice ratio 50:50 at refrigeration condition. However, the overall acceptability of beverage decreased with increase in storage period. It was concluded that refrigerated storage method was found to be superior over other methods of storage of bael and orange based RTS beverage followed by BOD incubator and room temperature conditions.

**Key Words :** Bael, Beverage, Orange, Sensory, RTS beverage

**How to cite this article :** Kumar, Devendra, Shukla, R.N. and Kumar, Sanjeev (2018). Study on qualitative attributes of RTS beverage of mixed fruit using bael and orange under different storage conditions. *Food Sci. Res. J.*, **9**(1): 79-84, DOI : **10.15740/HAS/FSRJ/9.1/79-84**.

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