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Production And Quality Evaluation Of Marmalade From Orange Fruits Sweetened With Honey

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Abstract

The study evaluated the quality characteristics of the marmalade produced from oranges and honey. In the production of the marmalade, combination of orange and honey were used at different ratios. The ratio of orange to honey were OHM0(100:0) OHM1(80:20), OHM2(70:30), OHM3(60:40) and OHM4(50:50). The marmalade were analyzed for chemical composition, physiochemical, microbiological and sensory properties. Statistical analysis was carried out using one way analysis of variance (ANOVA) and mean was separated using Duncan new multiple range test. The moisture, protein, fat, fibre, ash and carbohydrate ranged from 10.69 - 43.62%, 1.27 - 1.87%, 1.07 - 1.69%, 0.20 - 0.45%, 1.08 - 1.92% and 50.46 - 85.71%, respectively. Sample OHM1 had the highest moisture content. The composition for vitamin A, B3, B1, B2 and C ranged from 0 - 0.45mg/100g, 0.12 - 0.17 mg/100g, 0.47 - 0.71mg/100g, 0.34 - 0.54mg/100g and 16.04 - 24.09mg/100g, respectively. The magnesium, iron and calcium ranged from 34.29 - 39.83mg/100g, 0.58 - 1.02mg/100g and 43.04 - 50.10mg/100g, respectively. The results of the physicochemical parameters for pH and total titrable acid ranged from 2.60 - 3.30, 0.95 - 1.28. Total viable count and the mould count were not detected in the samples. Sensory scores indicated that the marmalade with 80% orange, 20% Honey was most accepted by consumers amongst other formulations, resulting in improved taste and texture. Overall, the use of honey in the production of marmalade is a promising approach for producing nutritious and acceptable fruit beverage.

Key words: *Production, evaluation, marmalade, orange, honey*