

RESEARCH PAPER

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Development and quality evaluation of carrot and orange blend juice

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SUMMARY :

Experimental study was conducted to evaluate the qualitative attributes of mixed juice using carrot and orange prepared with the composition of 95:05, 90:10 and 85:15 and the samples were stored at refrigeration temperature (5^o C), B.O.D. (25^o C) and room temperature (35^o C) for 0, 15, 30 and 45 days. The physico-chemical qualities (TSS, pH and vitamin C), microbial growth and sensory quality (colour, taste, flavour, texture and overall acceptability) were evaluated. The TSS increased with increase in storage period. The TSS value scored maximum as 13.7, 13.4 and 13.1 for BOD condition after 45 days of storage period. The pH values of the sample composition 95:05, 90:10, and 85:15 after 45 days of storage were observed as 5.17, 5.14 and 5.10 at room temperature and 5.12, 5.05 and 5.01 at B.O.D. incubator condition, respectively. It was observed that pH of all the samples were decreased at 15, 30, and 45 days of storage. Decrease in the vitamin C was observed with increase in the level of storage period of carrot and orange composition in the samples. The ascorbic acid values of the samples composition 95:5, 90:10 and 85:15 after 45 days of storage were observed as 26.65, 30.61 and 34.91 mg/100ml at room temperature condition and the ascorbic acid values of the samples composition 95:5, 90:10 and 85:15 after 45 days of storage were observed as 24.33, 27.52 and 30.24 mg/100ml at B.O.D. incubator condition, respectively. The microbial growth increases with increase in storage period. The beverage samples stored at refrigeration condition was found superior over other storage condition followed by BOD incubator and room temperature conditions. Sensory panel recommended best sample containing 85:15 ratios of carrot and orange juice as colour, taste, flavour and texture points of view with the score of overall acceptability (7.7).

KEY WORDS : Blended juice, Physico-chemical, Microbial-growth, Sensory

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