



Research Paper

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Quality evaluation and storage behaviour of lime (*Citrus aurantifolia*) squash cv. SAI SARBATI

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ABSTRACT : Lime squash with 5,10,15 per cent lime juice concentration and 450 and 500 B T.S.S was prepared and subjected to physico-chemical analysis and organoleptic evaluation at 0, 30, 60 and 90 days of storage. An increasing trend in T.S.S, reducing and total sugar content and decreasing trend in acidity and ascorbic acid was noticed during storage period of 90 days. Squash prepared with the recipe of 10 per cent juice and 500 B T.S.S was found to be the best recipe with respect to organoleptic qualities like colour, flavour, taste and overall acceptability.

KEY WORDS : Lime juice, Storage, Squash, Organoleptic score, Recipe

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Kagzi lime (*Citrus aurantifolia* swingle) is one of the most important citrus fruits as a major source of vitamin C and acetic acid (Souci *et al.*, 2000) grown through out the world (Babu, 2001). India ranks fifth after major lime producing countries such as Brazil, China, United States, and Mexico. It occupies third position after mango and banana in the production of fruits in India (Bose *et al.*, 1999). In India, the lime is cultivated on an area of 295.6 m ha with annual production of 26.29 lakh tonnes and productivity of 8.9 MT/ha. Kagzi lime is specially used on large scale in the preparation of pickles and other processed products like squash, cordial, carbonated beverages and syrups. It is consumed not only as a fresh fruit but also used for flavouring and garnishing the dishes of vegetables, fish, meats, salads, etc. In India, excellent sharbat is prepared from kagzi lime juice which is not substituted by any other synthetic drink for quenching summer thirst (Ingale *et al.*, 2000). Kagzi lime produces better quality juices and beverages compared to other citrus fruits.

According to FSSAI, 2011, the fruit squashes should contain 25 per cent of juice. However, Kagzi lime, being a highly acidic fruit, it is not possible to maintain this high juice level in the lime squash which may otherwise result into a sour RTS after dilution. Therefore, the present research has

been undertaken to standardize the better recipe for lime squash and also to explore the use of Sai Sarbati variety of lime for making quality squashes.

RESEARCH METHODS

Sound, healthy and fully ripe lime cv. SAI SARBATI fruits of uniform size and free from injury were procured from Citrus Fruit Research Station, Shrirampur, Dist. Ahemadnagar, Maharashtra. The lime squash was prepared as per the methodology suggested by Lal *et al.* (1998). After washing, the fruits were cut into two halves and the juice was extracted with the help of hand squeezer and filtered through muslin cloth to remove the coarse particles and fibre. Lime squash was prepared with 5, 10 and 15 per cent juice concentration with final T.S.S at 45 and 500 B, respectively by mixing required quantity of strained sugar syrup with the lime juice as per the treatment. The chemical preservative, potassium metabisulphite was added @ 710mg/kg of finished product. The prepared squash was filled into pre-sterilized glass bottles of 200ml capacity and sealed air tight with the help of crown corking machine. Then, the product was processed in boiling water for 30 minutes, cooled immediately and stored at room temperature for further investigation. The stored squash was analyzed for chemical parameters at 0, 30, 60 and 90 days of