

# Standardisation of recipe for the preparation of nectar from sweet orange (*Citrus sinensis* Osbeck) var. sathgudi using sugar substitutes and its storage

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**SUMMARY :** The investigation is on standardization of recipe for preparation of nectar from sweet orange (*Citrus sinensis* Osbeck) var. sathgudi using sugar substitutes. The experiment was laid out in Factorial Completely Randomised Design with three replications and 6 treatments viz., fructose, aspartame, sucralose and their combination with cane sugar (Sucrose) with 24 per cent juice and 0.2 per cent acidity. Nectar with sucrose was the control. Sugar substitutes were used in place of sugar based on sugar equivalents. Nectar recipes were analysed for chemical composition and sensory quality attributes at 0, 3 and 6 months intervals in ambient conditions. In sensory evaluation, nectar with fructose, nectar with sucralose, 50 per cent sucrose + 50 per cent fructose and 50 per cent sucrose + 50 per cent sucralose were at par with control (Standard) in respect of overall acceptability scores and rated the better recipes. Nectar had storage stability upto 6 months.

**Key Words :** Nectar, Sugar substitutes, Sathgudi, Sensory analysis, Storage, Sweet orange

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Sugar substitutes are the food additives used in very small quantities to sweeten foods which provide zero or few calories and offer attractive dietary options for diabetics and people who are trying to limit calorie intake and reduce the risk of tooth decay (Meister and Kava, 2006). Population suffering from diabetes is increasing year by year in India. Inclusion of sugar substitutes in place of sugar for preparation of nectar or any other sweet orange beverages would greatly benefit diabetics and health conscious population. Sweet orange juice is known for health promoting properties (Ladaniya, 2008). Preparation of fruit beverages with sugar substitutes is a new area of research and therefore, an

investigation was carried out to standardize sweet orange nectar preparation using sugar substitutes.

## EXPERIMENTAL METHODS

The experiment on standardization of recipe for preparation of nectar from sweet orange (*Citrus sinensis* Osbeck) var. sathgudi using sugar substitutes was carried out in the processing laboratory of the Division of Post Harvest Technology, Indian Institute of Horticultural Research, Bengaluru from November, 2009 to June, 2010. Sweet orange fruits (Var. Sathgudi) of optimum maturity and colour were procured from the sweet orange gardens of Anantapur district, Andhra Pradesh and were washed in potable water, peeled using stainless steel knives, albedo portion was removed, juice sacs were separated from segments and blended in a mixer. The juice obtained was filtered using muslin cloth. The juice was analysed for TSS and acidity and recipes of nectar with sugar substitutes were prepared. The recipe of nectar with 24

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