

Studies on preparation and preservation of low calorie guava (*Psidium guajava* L.) nectar using stevia as low calorie sweetener

■ JYOTI SWAROOP, SANJAY PATHAK, M.S. JAKHAR AND SANJAY KUMAR

SUMMARY : The experiment was conducted to standardization of the suitable ratio of sugar and stevia for the preparation of quality low calorie guava nectar beverage and observed their chemical changes during storage for three months at ambient temperature. The prepared nectars were organoleptically evaluated by adopting 9 point hedonic rating scale. Among the different sugar-stevia ratios, nectar prepared by using 50 per cent stevia+ 50 per cent sugar was found to be the best on overall sensory score. Best nectar stored in glass bottles and chemical changes during storage were also studied at monthly intervals. Total soluble solids, acidity, ascorbic acid content and non- enzymatic browning of nectar did not change upto the entire period of storage whereas, organoleptic score slightly decreased after two month of storage. According to the organoleptic score, the low calorie guava nectar was found to be acceptable upto three months of storage at ambient temperature with good appearance, flavour, taste and overall acceptability.

KEY WORDS : Guava fruits, Low calorie beverage, Stevia, Sugar- Stevia ratio, Nectar, Organoleptic quality, Storage

How to cite this paper : Swaroop, Jyoti, Pathak, Sanjay, Jakhar, M.S. and Kumar, Sanjay (2012). Studies on preparation and preservation of low calorie guava (*Psidium guajava* L.) nectar using stevia as low calorie sweetener. *Internat. J. Proc. & Post Harvest Technol.*, **3** (2) : 283-285.

Research chronicle : Received : 20.09.2012; Revised : 10.10.2012; Accepted : 21.11.2012

Guava (*Psidium guajava* L.) is an important tropical and subtropical fruit of India, acknowledged as apple of the tropics and belongs to family Myrtaceae. In India, It has fourth position in area and production among all fruits after mango, banana and citrus. It is a rich source of ascorbic acid and pectin and also contains appreciable amount of minerals, vitamins, proteins and sugars like fructose, glucose and sucrose. Fructose is the principal sugar in green ripe fruits, while, sucrose is the main one in fully ripe fruits. Guava cv L-49 (Sardar) is the most important cultivar of Uttar Pradesh. Its

fruits are large- roundish sized, white-yellowish skin coloured, white fleshed, sweet and strongly flavoured with few seeds potential and high pulp percentage.

Guava fruit is recognized as a most promising and well accepted fruit among the processing industries due to its luscious taste, excellent flavour, attractive fragrance and nutritional value. Guava fruits have high percentage of pectin content which is an important constituent of jelly as well as thickening agent of beverages. Row fruits are used for making of several products viz., RTS, nectar, squash, jam, jelly, ice-cream, sherbet, cheese, toffee, etc.

Being a climacteric fruit, guava is very perishable in nature and possesses short shelf life therefore, may have enormous potential if converted into nutritious beverages with exotic taste. The finished beverages contain about 8 to 14 per cent sugar. Today's consumers expect more and more pleasure from food. They want to drink that type of beverage which should be lower in fat and sugar. These facts resulted in development of sugar free as low calorie sweetness. Therefore, fruit beverages can be made with lower calorie sugar like stevia.

Stevia (*Stevia rebaudiana*) belongs to family Asteraceae

MEMBERS OF THE RESEARCH FORUM

Author for Correspondence :

JYOTI SWAROOP, Department of Post Harvest Technology, College of Horticulture and Forestry, N.D. University of Agriculture and Technology, FAIZABAD (U.P.) INDIA
Email : monijakhar@gmail.com

Coopted Authors:

SANJAY PATHAK AND M.S. JAKHAR, Department of Horticulture, N.D. University of Agriculture and Technology, FAIZABAD (U.P.) INDIA

SANJAY KUMAR, Department of Applied Plant Science (Horticulture), B.B. Ambedkar University, LUCKNOW (U.P.) INDIA