

Standardization of recipe and storage behaviour of lime blended amla squash

A. HARSHAVARDHAN REDDY AND V. CHIKKASUBBANNA

Accepted : April, 2008

See end of the article for authors' affiliations

Correspondence to:

A. HARSHAVARDHAN REDDY
Division of Horticulture,
University of Agricultural
Science, G.K.V.K.,
BANGALORE
(KARNATAKA) INDIA

ABSTRACT

Lime blended Amla squash with 25 per cent juice containing amla pulp and lime juice in the ratio of 1:3, 1:1 and 3:1 and 40, 45 and 50^oBrix T.S.S was prepared and subjected to physico-chemical analysis at 0, 30, 60 and 90 days of storage and organoleptic rating at 90 days of storage. An increasing trend in pH, total soluble solids and total sugars, reducing sugars and decreasing trend in acidity, crude protein, fibre, tannins, non-reducing sugars and ascorbic acid was noticed during storage period of 90 days. Squash prepared with 25 per cent pulp (amla pulp and lime juice in the ratio of 1:3), 40^oB total soluble solids was found to be the best recipe for organoleptic qualities like appearance, aroma and flavour, taste and overall acceptability.

Key words : Recipe, Storage behaviour, Lime blended, Amla squash, Organoleptic rating.

The Amla ('Aonla') (*Phyllanthus emblica* or *Emblica officinalis* Gaertn), also known as Indian Gooseberry is a minor sub-tropical deciduous tree belonging to the family Euphorbiaceae. It is used for various ailments in the Indian system of medicine. It possesses pronounced expectorant, antiviral, cardiotoxic, hypoglycemic and antioxidant activities (Kalra, 1988). Amla fruit contains 89 to 94% pulp, 0.8 to 2% fibre, 10 to 14% total soluble solids, 1.4 to 2.4% acidity, 700 to 900 mg vitamin C /100g pulp, 2.4 to 3.1% pectin and 2 to 3% phenols (Singh *et al.*, 1993). Fruit of amla is not consumed in fresh form because of its astringency and fruits during their peak harvesting season go as a waste due to limited usage. However, it has the potentiality of becoming a popular fruit if suitably processed into value added products which have great importance in alleviating malnutrition among rural population in addition to several health benefits. The present study was carried out to develop value-added squash blended with lime from amla fruits to minimize losses due to improper handling and unmarketability of fruits.

MATERIALS AND METHODS

Well matured amla fruits of uniform size and free from bruises were collected from forest localities of Karnataka. The collected fruits were washed thoroughly with clean water and boiled for five minutes with equal amount of water for easy separation of seed and pulp (Singh and Kumar, 1995). The pulp is then fed into a warring blender for mashing into fine texture using the same boiled water. Thus extracted pulp was used for preparation of lime blended squash with the following

ingredients.

The prepared squash was filled into the pre-sterilized bottles of 200 ml capacity and sealed air tight using crown caps with the help of crown corking machine. Then the product was processed in boiling water for 25 minutes, cooled immediately and stored at room temperature for further observations. Stored squash was analyzed for physico-chemical parameters at 0, 30, 60 and 90 days of storage.

Recipes for lime blended squash				
Recipe No.	Pulp / juice content (25%)		TSS (^o Brix)	Acidity (%)
	Amla Pulp	Lime juice		
1.	25	75	40	1.4
2.	25	75	45	1.4
3.	25	75	50	1.4
4.	50	50	40	1.1
5.	50	50	45	1.1
6.	50	50	50	1.1
7.	75	25	40	1.0
8.	75	25	45	1.0
9.	75	25	50	1.0

The pH was measured using Toshniwal digital pH meter (Model DI 707). Total soluble solids content was recorded using Erma-hand refractometer. Titrable acidity (as citric acid) and ascorbic acid were estimated by methods suggested by Ranganna (1977). Total and reducing sugars were estimated by Shaffer-Somogyi method (Somogyi, 1945). Crude protein was calculated by multiplying per cent nitrogen content with the factor 6.25. Per cent nitrogen content was determined by Micro-