



Shelf-life quality parameters evaluation in Jamaican cherry (*Muntingia calabura* L.) nectar during storage

C.M. PRADEEPKUMAR, V. CHIKKASUBBANNA, H.M. SANTHOSHA, B. MANJUNATH AND S. RENUKARADYA

ABSTRACT

Jamaican cherry (*Muntingia calabura* L.) also called as Japanese cherry belongs to the family Tiliaceae. Even though it is not grown commercially, the fruits are highly nutritious and have good medicinal properties but are highly perishable in nature. The weight of the fruit (1.80g), pulp weight (1.40g) and 78.80% pulp recoveries were recorded. Initial pH was 4.91 and 5.05 increased from 5.04 and 5.12, respectively in nectar prepared with 15 and 20% pulp. The maximum initial pH was noticed in N₂T₃ (5.08) and at 90 days of storage also N₂T₃ recorded maximum pH 5.13. Maximum increase in TSS content from 20 - 21.82°B was noticed in N₂T₃. Declining trend in ascorbic acid was exhibited during storage, however the treatment N₂ recorded maximum ascorbic acid (13.32mg/100g) at 90 days of storage. In interaction effect, maximum ascorbic acid (13.55mg/100gr) was noticed in treatment N₂T₂ and it declined to 12.91 mg/100g at days of storage. The treatment N₂T₃ showed increasing trend with respect to total sugar (15.14 to 15.43%) and reducing sugar (6.85 to 12.27%) at 90 days of storage. With respect to non-reducing sugar it should exhibit declining trend and maximum non-reducing sugar was noticed in treatment N₂T₃ (8.94%) declined to 3.14%. Treatment N₂T₃ should good appearance (4.95 and 3.95) aroma and flavor (4.95 and 4.05) Taste (4.92 and 4.38) and overall acceptability score (4.94 and 4.32) during initially and after 90 days of storage.

See end of the article for authors' affiliations

Correspondence to:

H.M. SANTOSHA

Department of Horticulture,
University of Horticultural
Sciences, P.G. and Zonal
Horticultural and Research
Station, G.K.V.K.,
BENGALURU
(KARNATAKA) INDIA
Email: san3070@gmail.com

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Key words : Jamaican cherry, Total sugars, TSS and Organoleptic quality

Jamaican cherry (*Muntingia calabura* L.) belongs to the family Tiliaceae and is often called “Japanese cherry” or “Chinese cherry”. The Jamaican cherry flower resembles strawberry blossoms, so it is also known as strawberry tree. The tree is well adopted under tropical and subtropical conditions. Jamaican cherry grows best up to an elevation of 1,300M above mean sea level. It is also tolerant to low winter temperature. The plant thrives well in both acid and alkaline conditions. The tree comes up well in poor soil also. It is drought resistant crop but not a salt tolerant (Wee Yeow Chin, 1989).

Jamaican cherry fruits are nutritious and have good medicinal properties, but are highly perishable with short storage-life under ambient condition. Hence, the present investigation was undertaken to standardize the recipes and procedure to prepare value added products from Jamaican cherry.

MATERIALS AND METHODS

The experiment was conducted in Division of Horticulture UAS, GKVK. Bangalore during 2007. The fruits were collected from Yalahanka area of Bangalore. Well matured ripen fruits of uniform size, red colour and freed from bruises were used for the study.

Physical properties:

Five fruits were selected randomly for assessing average weight of the fruit. The length and diameter of fruits were measured using a measuring scale. The weights of pulp were recorded individually and mean weight was calculated and expressed in grams.

Chemical properties of fresh pulp and nectar:

The fresh pulp was analyzed to find out the proximate composition.

pH: was recorded by using Toshniwal digital pH