



## Research Paper

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# Studies on aonla (*Emblica officinalis* Gaertn) nectar and biochemical changes with advancement of storage period

■ M.L. CHOUDHARY, I.M. VERMA<sup>1</sup>, JITENDRA SINGH<sup>2</sup> AND S.L. GODARA<sup>3</sup>

### Members of the Research Forum

#### Associate Author :

<sup>1</sup>Land Scape Cell (Horticulture),  
S.K. Rajasthan Agricultural  
University, Beechwal, BIKANER  
(RAJASTHAN) INDIA

<sup>2</sup>Department of Fruit Science,  
College of Horticulture and Forestry,  
(M.P.U.A.T.), JHALAWAR  
(RAJASTHAN) INDIA

<sup>3</sup> Department of Plant Pathology,  
College of Agriculture, S.K.  
Rajasthan Agricultural University,  
Beechwal, BIKANER  
(RAJASTHAN) INDIA

#### Author for correspondence :

**M.L. CHOUDHARY**  
Krishi Vigyan Kendra (SURE),  
Danta, BARMER (RAJASTHAN)  
INDIA  
Email : mlchoudhary\_horti@  
yahoo.com

**Abstract :** With a view to develop value added products, nectar using fruits of cultivar NA-7 with various recipes was prepared. The prepared nectar was kept at ambient condition for storage study. The nectar remained acceptable upto 240 days at ambient condition. The nectar prepared from T<sub>3</sub> (20 per cent juice, 20 per cent TSS and 0.3 per cent acidity) recorded maximum organoleptic score than other recipe treatments. The biochemical composition in aonla nectar prepared from T<sub>6</sub> (35 per cent juice, 20 per cent TSS and 0.3 per cent acidity) had the maximum retained acidity, TSS, total sugar, reducing sugar than rest of the recipes and their increasing trend with advancement of storage period upto 240 was recorded under ambient condition. On the other hand, the nectar prepared with T<sub>6</sub> (35 per cent juice, 20 per cent TSS and 0.3 per cent acidity) had maximum ascorbic acid, non-reducing sugar, TSS / acidity ratio, pH and organoleptic score and these traits showed decreasing trend with advancement of storage period upto 240 days under ambient condition. The microbial population increased invariably with successive advancement of storage period irrespective of recipe treatments used. Minimum bacterial counts, yeast counts and mould counts was noted under T<sub>3</sub> (20 per cent juice, 20 per cent TSS and 0.3 per cent acidity). The nectar prepared from T<sub>3</sub> (20 per cent juice, 20 per cent TSS and 0.3 per cent acidity) had the maximum benefit: cost ratio, good sensory evaluation score and high nutritional quality.

**Key words :** Indian gooseberry, Nectar preparation, Biochemical composition, Microbial examination, Organoleptic evaluation

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**A**onla (*Emblica officinalis* Gaertn) also known as Indian gooseberry (*Emblica officinalis* Gaertn.) is adapted to dry region and salt affected soils. The fruit is found growing wild or in cultivated form in different parts of the country. It can be grown easily on calcareous and slightly saline as well as alkaline soils where other fruit crops do not thrive well. Aonla fruits are the richest source of ascorbic acid among fruits except Barbados cherry. The presence of polyphenols or leucoanthocynins owes a lot to the stability of ascorbic acid. The gallic acid present in aonla fruit has antioxidant property. The fruit is in use as pickle, candy and several other nutritional and medicinal products but its use is limited. In view of health benefits, there is need to make the fruits more and more amenable to value added products. The attempt to convert aonla to various value added products will

be helpful in alleviating distress sale of the aonla fruits often observed in the market during December-February when the harvesting reaches the peak. With such intent, the present investigation was carried out to study the suitability of aonla variety (NA-7) for nectar making.

## RESEARCH METHODS

The present investigation was carried out in the Department of Horticulture, College of Agriculture, SKRAU, Beechwal, Bikaner (Rajasthan) during 2006-2007. Fully mature fruits were selected for the preparation of aonla nectar. The fruits were washed in running water to remove dirt and dust particles. These were sliced into small pieces and seeds were removed by using hand carrot crusher. The slices were blended by adding necessary amount of warm water in a waring blender.