



KrishiKosh (कृषिकोश)

(/) An Institutional Repository of Indian National Agricultural Research System



Advanced Search (/advanced-search)

[Krishikosh \(/\)](#) / [Birsa Agricultural University, Ranchi \(/handle/1/93542\)](#) / [Thesis \(/handle/1/93550\)](#)

Please use this identifier to cite or link to this item: <http://krishikosh.egranth.ac.in/handle/1/5810022377>

Authors: Prabhakar, Subhasini (/browse?type=author&value=Prabhakar%2C+Subhasini)

Advisor: KUMAR, P. (/browse?type=author&value=KUMAR%2C+P.)

Title: STUDIES ON PHYSICO-CHEMICAL CHANGES AND SHELF LIFE OF DIFFERENT CULTIVARS OF AONLA (*Emblica officinalis*)

Publisher: Birsa Agricultural University, Kanke, Ranchi, Jharkhand

Language: en_US

Type: Thesis

Pages: 71

Agrotags: null

Keywords: STUDIES ON PHYSICO-CHEMICAL CHANGES AND SHELF LIFE OF DIFFERENT CULTIVARS OF AONLA (*Emblica officinalis*)

Abstract: Indian gooseberry (*Emblica officinalis* Gaertn.) known as Aonla belongs to family Euphorbiaceae is one of the most important fruits indigenous to India. It has been regarded as sacred tree and known as Amritphal in olden literature. The excellent nutritive and the therapeutic values of fruit have great potential for processing into number of quality products which have a great demand in national as well as international market. In recent years several new varieties of Aonla have been evolved with improved characteristics. Also it is quite hardy, prolific bearer, highly remunerative but perishable in nature and due to this reason its storage is very limited. Keeping these points in view the present investigation was undertaken to study the physico-chemical composition of different cultivars of Aonla as well as their shelf life during storage condition. Hence the experiment entitled "Studies on physico-chemical changes and shelf life of different cultivars of Aonla (*Emblica officinalis*)" was conducted in the laboratory of Department of Horticulture, BAU in the month of October 2012. The experiment was laid out in CRD design with three replications and eight treatments (T1- Kanchan, T2- Banarsi, T3- NA-10, T4- NA-7, T5-Krishna, T6- Chakaiya as a check, T7- Francis and T8- Faizabad). Results of the morphological characteristics, revealed that among the eight Aonla cultivars, the shape of fruits varied from flattened oblong, flattened round, flattened oval to flattened (triangular). The apex of fruits varied from upward to downward, whereas, the colour of fruit was varied from light green, whitish green to straw yellow, yellowish green with pink tinge, yellowish green and red tinge to whitish green to apricot yellow and the surface of fruit varied from smooth to rough. With respect to the physicochemical characteristics, cultivar NA-10 was superior and highly significant to other cultivars by exhibiting maximum average fruit weight (196.20g), weight of pulp (39.21g), stone weight (1.93g), pulp-stone ratio (20.31) characters but, it was at par with NA-7 cultivar for fruit length (3.83cm), fruit diameter (4.51cm), pulp percentage (95.27%) and ascorbic acid (525.44 mg/100g). However, cultivar Chakaiya which was used as the check variety in the experiment also showed statistical parity to NA-10 and NA-7 cultivars in ascorbic acid (523.45 mg/100g) content. With regard to acidity character, the NA-7 cultivar showed maximum value 2.55% and was at par with NA-10 (2.50%) but, was highly significant for T.S.S character at 11.06 OBrix, respectively. In relation to storability of fruit, it was maximum in cultivar NA-7 (6 days). Whereas, the physiological loss in weight of fruit was highest (1.42%) in cultivar Banarasi and was minimum (1.27%) in NA-10 cultivar. Also maximum spoilage of fruit was recorded 71.42 per cent in Banarasi and minimum in NA-7 (11.11 per cent). Therefore, it may be concluded that out of eight different varieties of Aonla taken in the present investigation for post-harvest study condition, NA-10 and NA-7 were the best in all the parameters regarding morphology and qualitative traits especially in comparison to Chakaiya, the best known oldest variety taken as check. However, NA-7 is recommended for the farming community to fetch more price value, as the acidity (2.56 mm/100g), shelf-life (6 days) and T.S.S (11.06OBrix) was found maximum in it and posses less spoilage of fruit (11.11%) during storage at room temperature.

Description: STUDIES ON PHYSICO-CHEMICAL CHANGES AND SHELF LIFE OF DIFFERENT CULTIVARS OF AONLA (*Emblica officinalis*)

Subject: Horticulture

Theme: STUDIES ON PHYSICO-CHEMICAL CHANGES AND SHELF LIFE OF DIFFERENT CULTIVARS OF AONLA (*Emblica officinalis*)

These Type: M.Sc

Issue Date: 2013

Appears in Thesis (/handle/1/93550)

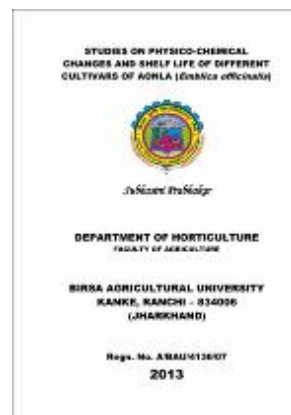
Collections:

Files in This Item:

File	Description	Size	Format
------	-------------	------	--------


1457 Subhasini Prabhakar.pdf

1.96 MB Adobe PDF



[View/Open \(/displaybitstream?handle=1/5810022377\)](/displaybitstream?handle=1/5810022377)

[Show full item record \(/handle/1/5810022377?mode=full\)](/handle/1/5810022377?mode=full)

 [\(/handle/1/5810022377/statistics\)](/handle/1/5810022377/statistics)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.