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RESEARCH PAPER

Studies on osmotic dehydration of aonla fruits

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SUMMARY : An investigation was conducted to study osmotic dehydration of aonla fruits. The organoleptically acceptable dehydrated sweetened aonla slices with better quality was obtained by blanching for five minutes and sliced pieces steeped in two per cent salt for two hours + steeping in 60^0B sugar syrup for 24 hours followed by drying under open sun. The sun dried sweetened aonla slices gave higher recovery biochemical composition with better organoleptic quality as compared to solar dried slices.

KEY WORDS : Aonla fruits, Blanching, Salt Solution, Sugar syrup, Dehydration, Recovery

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Aonla (*Emblica officinalis* Gaerth) is an important arid zone fruit crop. It is probably the only fruit to fill the gap of astringent food recommended by Ayurvedic system of medicine for a balanced diet and sound health. Fruit is a very rich source of ascorbic acid. Fruit is highly acid and astringent in taste and hence, unsuitable for fresh consumption. Various products like murabba, candy, pickle, jam, sauce, squash, syrup are prepared from this fruit. But available information on preparation of dehydrated sweetened aonla slices is limited and during osmodehydration of aonla slices there is a change in bio-chemical composition fruit. Hence, there was a need to study and standardize a simple, economical and appropriate method for preparation of highly acceptable, good quality dehydrated sweetened aonla slices. With this view, the present investigation was under taken to study osmotic dehydration of aonla fruits.

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EXPERIMENTAL METHODS

Preparation of dehydrated aonla slices :

Fresh aonla fruits cv.SUREBAN (Local Variety) procured from Lingadhal village, Belgaum district (Karnataka) were used for present investigation. The experiment was laid out in factorial Completely Randomized Design (CRD) with three replications consisting of 15 treatments and two methods of drying. Fresh fruits were washed in clean water and blanched for five minutes and made into slices. The details of treatments are as follows:

T_1 : Control (blanching)
T_2 : Blanching + steeping slices in 2% salt for 1 hour
T_3 : Blanching + steeping slices in 2% salt for 2 hour
T_4 : Blanching + steeping slices in 2% salt for 3 hour
T_5 : Blanching + steeping slices in 2% salt for 1 hour + 50^0B syrup* for 24 hours
T_6 : Blanching + steeping slices in 2% salt for 2 hour + 50^0B syrup for 24 hours
T_7 : Blanching + steeping slices in 2% salt for 3 hour + 50^0B syrup for 24 hours
T_8 : Blanching + steeping slices in 2% salt for 1 hour + 60^0B syrup for 24 hours
T_9 : Blanching + steeping slices in 2% salt for 2 hour + 60^0B syrup for 24 hours
T_{10}: Blanching + steeping slices in 2% salt for 3 hour + 60^0B syrup for 24 hours
T_{11}: Blanching + steeping slices in 2% salt for 1 hour + 70^0B syrup for 24 hours
T_{12}: Blanching + steeping slices in 2% salt for 2 hour +