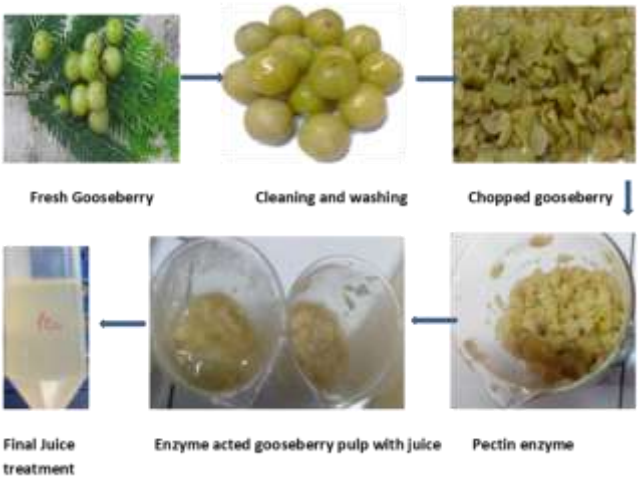
Yield comparison of *Emblica officinalis* (Amla) Juice via commercial juicer & novel method

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Abstract (300 word limit)

In the present era, survival of the fittest or human being with good immune system will be the savior a common phrase. Since ancient times, Indian gooseberry and its products has been consumed as medicine because of its antioxidants and disease curing properties as recommended by Indian Ayurveda. Its daily intake as fresh or processed forms has been found effective in decreasing serum cholesterol, prevents indigestion, controls acidity, liver disorders, premature graying and hair loss, improves eyesight and purifies blood. It has been a curing medicine for auto-immune diseases, bacterial and viral diseases if consumed regularly as per the Indian Ayurveda. Indian content has numerous amounts of products made from gooseberry which are consumed as foods (candies, preserve, pickles, juices etc.) and as nutraceuticals to combat various newly erupting diseases and infections. Apparently fresh juice of gooseberry or preserved in combination with other fruits juices has gain popularity due to significant results in boosting immunity to fight viral diseases. So, in accordance with the need and coverup the demand this study has been designed to increase the productivity and quality of the gooseberry juice by using pectinase enzyme. In earlier conducted experiments, approximately 60-70 percent of amla fruit (Indian gooseberry or *Emblica officinalis*) can be extracted as juice based on the efficiency of pulp separation during juicing. To obtain a quarter part of juice without pulp approximately 1.5 Kg of gooseberry was consumed by commercial juice extractor. A new novel/ non-thermal/ or a sustainable method for juice extraction has been studied using pectinase enzyme in Indian gooseberry i.e. *Emblica officinalis*. A trial has been carried out to standardize the process of juice extraction by using industrial enzymes or 'pectinase enzyme' in comparison to commercial method for juice (juicer) extraction. The significant outcomes while comparing the yield of juice from both the methods showed that 42.63 percent and 78.54 percent of juice extraction via commercial (juicer) and pectinase enzyme assisted method, respectively could be possible. The leftover amla or gooseberry pulp was found maximum (35.09%) in case of commercial juicer method as compared to the enzyme assisted method (18.51%). The results showed that if the enzyme assisted method designed on pilot scale may result in doubling the amla juice yield and with best storage life.

Image



Recent Publications (minimum 5)

1. Nisha, P., Rekha, S., Singal, and Aniruddha, B., Pandit (2004) A Study on Degradation Kinetic of Ascorbic Acid in Amla (Phyllanthus emblica L) during cooking," International Journal of Food Science and Technology., 55(5), pp.415-422, 2004
2. Singh, H.P. (2004) Augmentation of Production and Utilization of Amla," National seminar on Production & utilization of Anola., pp. 8-10, Aug.
3. Rajkumar, N.V., Theres, M, Kuttan. (2001) Emblica Officinalis Fruits Afford Protection against Experimental Gastric Ulcers in Rats," Pharmaceutical Biology., 39(5), pp.375-380.
4. Khalekar, D.N., Shandilya, M.K. and Mishra, D.S. (2000) Scientific Study- Rasayana (Rejuvenative) Effect of Amalaki," Journal of Research in Ayurveda and Siddha., 21, pp. 19-26.

Photograph



Biography (150 word limit)

Dr Jyoti Rani has an expertise in dairy, cereals, soybean and fruits& vegetable processing. She has more than 7 years of teaching and five years of research experience in the food science and technology field. She is intending to develop novel processing methods with less of inputs and more of quality with quantity keeping in mind the growing population and their nutrition. Enzymatic approach towards soymilk production has been intervened with an approach to reduce the wastage during conventional soymilk production and as well improving the digestibility of the soy proteins.

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Notes/Comments: