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Studies on formulation of noni (*Morinda citrifolia* L.) based syrup

G.D. Ladda, R. Siddiqui, P.N. Satwadhar and I.H. Hashmi

Morinda citrifolia L., commonly known as Noni, has been used in folk medicine for over 2000 years, its every part i.e. roots, stem, bark, leaves, flowers and fruit is utilized in various combinations for herbal remedies (Tabrah and Eveleth, 1966). Recently, the fruit juice is in high demand as food supplement or alternative herbal medicine for different kind of illnesses. The fruits are edible, but don't have a nice taste or smell. Hence, noni juice was blended with some other juices and noni based syrup was prepared. In which aloe vera juice and aonla juice were blended with noni juice to overcome the strong flavour of noni juice and also to improve nutraceutical value of beverage. Aonla juice and aloe vera juice were used as noni juice replacer at different concentrations. Ginger juice was added to improve taste of final product. Accordingly eleven samples (A to K) of noni syrup were formulated. The formulated noni based syrup samples were organoleptically analyzed for quality attributes like colour and appearance, flavour, mouth feel, taste and overall acceptability. The organoleptic evaluation of beverages indicated that sample H having 50 per cent noni juice, 10 per cent aloe vera juice and 40 per cent aonla juice scored highest rank on 9 point hedonic scale. Further, the physico-chemical properties of noni juice, aonla juice, aloe vera juice, ginger juice and sample H of syrup were investigated. The physico-chemical analysis of sample H showed that syrup had total soluble solids 66.60bx, acidity 1.23 per cent, brix:acid ratio 54.14, pH 4.05, ascorbic acid content 75.23mg/100ml, total sugar content 76.33 per cent, reducing sugar content 32.45 per cent and ash content 0.30 per cent. Moreover, the prepared noni based nutraceutical beverages were qualitatively assessed for their shelf-life by storing at refrigerated (5°C) and ambient conditions (35-40°C).

Key Words : Noni, Aloe vera, Aonla, Ginger, Syrup, Juice, Physico-chemical properties

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MEMBERS OF RESEARCH FORUM

Author for correspondence :

G.D. LADDA, Department of Food Science and Technology, M.I.P College of Food Technology, Aundha, HINGOLI (M.S.) INDIA Email : gauravladda@rediffmail.com

Associate Authors' :

R. SIDDIQUI, Department of Food Trade and Business Management, M.I.P College of Food Technology, Aundha, HINGOLI (M.S.) INDIA

I.H. HASHMI, Department of Food Science and Technology, College of Food Technology, Vasantrao Naik Marathwada Krishi Vidyapeeth, PARBHANI (M.S.) INDIA

P.N. SATWADHAR, Department of Food Trade and Business Management, College of Food Technology, Vasantrao Naik Marathwada Krishi Vidyapeeth, PARBHANI (M.S.) INDIA