

Studies on the formulation of mango-ginger blend ready-to-serve drink

Prasannath K.^{1*}, Mahendran T.¹

Superiority of safety and health maintenance by food products of natural origin compared to counterparts of non-natural origin was the basis of this study. A ready-to-serve (RTS) drink prepared from plant materials could provide health benefits to humans. In this study, a mango-ginger blend RTS drink was formulated using pre-tested proportions of mango and ginger. The control group was given mango juice only. The blended RTS containing various proportional gradients were examined for biochemical, nutrient-health promoting and sensory qualities. The results of biochemical analysis revealed that titrable acidity, total soluble solids and pH of RTS beverage prepared with 94% of mango juice and 6% of ginger extract were found to be 0.29%, 10.2° Brix and 4.78 respectively. These values of this particular blend are well acceptable for RTS preparation according to the recommendation for commercial RTS drink production. The above preparations also contained acceptable amount of nutrient-health promoting properties, notably phenolic content of 11.8 mg/ml. Samples subjected to organoleptic assessment showed that there were significant ($p < 0.05$) differences between the different blends with respect to sensory attributes. However, the formulated blend of 94% of mango juice with 6% of ginger extract appeared to be superior in terms of colour, mouth feel and flavor, compared to the other blends. The overall acceptability of the preparation was also rated as the highest among the samples by the panelists. Therefore, 94% of mango juice and 6% of ginger extract are most suitable proportions to formulate the mango-ginger blend RTS drink, which can be useful as a full liquid diet in therapeutic formulations. Preparation of mango-ginger blend beverage is a simple and economically feasible method, and can be made in the form of RTS, which could be kept for a long period under pasteurization.

Key words: Mango-ginger ready-to-serve drink, Sensory qualities, Biochemical properties, Health promoting nutrients,

1. Department of Agricultural Chemistry, Faculty of Agriculture, Eastern University Sri Lanka, Chenkalady, Sri Lanka.