915/B

Development of concentrated herbal tea based on refuse tea, BOPF, and Dust 2 tea grades incorporated with Allspice, Mint, and Ginger

R.M Dharmadasa[1*] and B.P.A. Imesha [2]

[1]*Industrial Technology Institute, Colombo 07, Sri Lanka*
[2]*Uva Wellassa University, Badulla, Sri Lanka*

Despite being one of the biggest tea exporters in the world, Sri Lanka currently exports the majority of its tea in bulk without much value addition. Consequently, any effort to increase the value of tea could result in higher earnings for the nation. Accordingly, we have focused on developing a concentrated tea with three distinctive flavour fusions: allspice leaves, mint, and ginger. Numerous bioactive compounds with significant antioxidant and therapeutic properties can be found in these spices. For the study, Refuse tea, BOPF and Dust 2 grades were used to develop the tea base and it was incorporated with the studied flavor fusions. Initially, the amounts of ingredients were optimized according to the preliminary sensory evaluation. Simple boiling method was used to extract the tea samples. Sugar was added and macerated until it reached a final concentration. Dried Allspice leaves (4%), fresh ginger (32%) and mint (24%) were added and kept in less than 40 °C for 10 minutes. Then the concentrated herbal tea was filtered and bottled following refrigeration at 4 °C. Organoleptic, physicochemical characteristics and shelf life of the tea samples were tested. As per the results, sensory attributes like mouth feel, overall taste, and overall acceptability depicted a significant difference between the grades while no significant difference was observed in appearance, color and aroma. The concentrated herbal tea based on BOPF grade was selected as the most preferred sample. Proximate parameters such as Carbohydrate content and energy indicate significant difference within grades and high values comprised in BOPF grade (33.5% and 135 kcal/100mL). Physicochemical characteristics like viscosity, color, antioxidant capacity, total flavonoid content depicted significant difference within three tea grades. We can conclude that unique flavor combinations provided pleasant sensorial experience to concentrated teas while the tea grades used directly impacted on the end quality of the product.

*aki123imesha456@gmail.com