

Developing a Non-dairy, Probiotic Three-in-One Instant Tea Premix

A.S. Hansamali^{1*}, G.A.A.R. Perera¹, I.R. Palangasinghe² and A.C. Liyanage²

¹*Department of Export Agriculture, Faculty of Animal Science and Export Agriculture, Uva Wellassa University, Sri Lanka*

²*Food Technology Department, Dilmah Ceylon Tea Company PLC, Negombo Road, Peliyagoda, Sri Lanka*

*Corresponding Author E-mail: sandunihansamali95@gmail.com, TP: +94779975459

Instant tea products are becoming popular due to on the go eating and drinking habits of people. Current instant tea market clearly lacks a non-dairy instant tea product to fulfil the requirements of vegetarians. Being health conscious and willingness to boost immunity, people tend to use probiotic products. Hence, present study was focused to develop a non-dairy, probiotic three-in-one instant tea premix using soy milk powder, *Bacillus coagulans* as probiotic, hot-water-soluble instant black tea powder, sugar, fructooligosaccharides as sweetener and non-dairy creamer. Five recipes were prepared by using above mentioned ingredients with three replicates. Samples were packed as 27 g each sachet. Sensory properties of these samples were evaluated using 5 points Hedonic scale by ten trained panelists. Anti-oxidant activity, polyphenol and caffeine contents and viable plate count of the selected samples were analyzed to determine its functional properties. Shelf life stability of the selected product was studied under accelerated conditions at 37 °C for 6 weeks. Sensory data were analyzed by Friedman test and means were compared at 95% significance level. Anti-oxidant activity, total polyphenol content and caffeine content of the selected product in mg per 100 g were 740.9±15.32 Ascorbic acid equivalent, 897.3±40.52 Gallic acid equivalent, and 605.97±3.23 respectively. Its total viable plate count remained at around 1×10⁹ throughout the study period enabling it to be claimed as a probiotic which supports immunity and digestive health. In conclusion, the developed product with its significant viable plate count, anti-oxidant activity, polyphenol and caffeine contents will be a refreshing dietary supplement for vegans.

Keywords: *Bacillus coagulans*; Instant tea; Polyphenol; Soy milk powder