

**DEVELOPMENT OF A NON-DAIRY, PROBIOTIC
THREE-IN-ONE INSTANT TEA PREMIX**

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By
AMBAGAHAGE SANDUNI HANSAMALI

**Tea Technology and Value Addition Degree Programme
Faculty of Animal Science and Export Agriculture
Uva Wellassa University of Sri Lanka**

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ABSTRACT

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 fulfill 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 and 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. Moisture content, rancidity and microbiological analysis were carried out to determine the shelf life of the selected product. Sensory data were analyzed by Friedman test and mean separation under 95% significance level. Anti-oxidant activity, total polyphenol content and caffeine content of the selected product were 740.9±15.32 Ascorbic acid equivalent per 100 g, 897.3±40.52 Gallic acid equivalent per 100 g, and 605.97±3.23 mg per 100 g respectively. Its total viable plate count remained at around 1×10^9 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, and polyphenol and caffeine contents will be a refreshing dietary supplement for vegans.

Key words: Instant tea; *Bacillus coagulans*; soy milk powder; polyphenol