

DEVELOPMENT OF A CARBONATED DRINK INCORPORATED WITH REFUSE TEA EXTRACT

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ABSTRACT

Refuse tea is the major wastage in tea manufacturing. According to the Sri Lankan standards, amount of refuse tea is required to maintain below 6 % when producing good quality tea. Due to use of poor quality leaves in tea manufacturing, this limit has been raised beyond the acceptable limit. But, refuse tea is not something that can be totally ignored, this because it has an attractive odor, excellent taste mix with some unpleasant characteristics. In Sri Lanka, value addition methods can be used for refuse tea. Refuse tea extract incorporated carbonated drink can be categorized under Ready to Drink Tea category. Carbon Dioxide has been used extensively in the preparation of many beverages; presence of this gas creates bubbles in the liquid. Hence, this study was carried out to develop a carbonated drink using refuse tea. Several preliminary trials were conducted using different amount of ingredients according to the recipe. Orange flavor was selected as the flavor type. Then carbonated drink was prepared using selected ingredient. Two sensory evaluations were done for the selection of favorable refuse tea levels and flavor levels. Five point hedonic scale was used to collect the data and Friedman test was used to analyze the data. Finally selected product was tasted for determining the shelf-life and proximate analysis. When measuring the polyphenol value it shows the lower values in carbonated drink. It was 127 mg GAE/g. Brix value was shown as 9.0. Shelf life determination was done at 1st, 2nd, 3rd, 4th, 5th, and 6th and 9th week at storage room temperature. Total plate count, yeast and mold count, pH, sensory and visual observations were carried out as shelf life parameters. According to the results microbial count and pH were under desirable level up to 6th day of storage. The formulated RTD beverage could be stored for one and half month at room temperature of 30 ± 2 °C without any significant difference.

Key words: refuse tea, ready to drink, carbonated drink