

Investigation and Analysis of Quality Parameters of Prepared Tea Pellets from Refuse Tea

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A research was conducted to evaluate the possibility of adding value to refuse tea by pressing it to different flavored pellets and to determine the suitability of refuse tea as a medium for quality tea pellet production. The processes involved in the production of tea pellet are oven drying, blending and sieving of refuse tea and black tea, flavor addition, and moulding. An envisaged process has been developed to produce tea pellets from the powdered refuse tea. A sample of refuse tea was oven dried, ground and sieved to obtain powdered big bulk. Similarly, a sample of black tea and flavors such as cardamom and ginger were also ground, sieved and made into powder (sieve size 75 µm). The powdered refuse tea, black tea and flavor materials were mixed in seven different ratios, pressed using a mould and the dynamometer to form pellets. The TheaFlavin(TF) : TheaRubigin(TR) ratio for soluble tea is 0.084 while total polyphenols(TP) could range from minimum 9-11 for a quality tea. Statistical analysis of sensory data using 33 untrained panelists showed that best ratios of refuse tea: Black Tea: Flavor material for Ginger and Cardamom was 7:2:2 and 7:3:1, respectively. The ratios of TF:TR, TP, and Moisture content were within 0.08 to 0.10, min 9-11 and below 6.5%, respectively. The process is economical as both refuse tea remaining from tea processing and black tea were combined in order to be converted into value added tablet form with different flavors. It is possible to develop value added products in the form of pellets using refuse tea and flavor material to generate additional income from material which otherwise considered as a waste problem. It is suggested to study the economics of industrial production for a marketable product.

Key words: Product diversification, Refuse tea, Tea tablets, Tea standards, Value added tea