

Statistical analysis of refused tea in Sri Lankan tea industry

S.N.M. Abeysekara¹, D.A.B.N. Gunarathne¹ and P. Sarukkali²

¹ Department of Crop Science, Faculty of Agriculture, University of Ruhuna, Kamburupitiya

² Market Intelligence and Resource Division, Sri Lanka Tea Board, Colombo 03

Abstract

Tea sector is one of the most important agricultural sectors, which is a one billion dollar industry in Sri Lanka. Refused Tea is a waste product in the manufacture of tea. As factories produced a considerable amount of Refused Tea daily it has become a significant point in the tea industry and it has created a threat to the image of Ceylon tea. Therefore it is essential to pay attention on Refused Tea problem. This study was aimed at analyzing the severity of Refused tea problem and finding solutions to reduce it. The study was carried out at Sri Lanka Tea Board and the data were employed from Market Intelligence and Resource Division of Sri Lanka Tea Board. A structured questionnaire was used to collect information from selected tea factories. Analysis of total production and processing of Refused Tea was based on descriptive and graphical methods. Time Series techniques were used to find the trend and forecast the Refused Tea production in Low Country for six months ahead. The effect of different sub districts of Low Country on Refused Tea production was studied.

It was estimated that, the total amount of annual Refused Tea production in Sri Lanka is 24.9 million kilograms. Monthly total Refused Tea amount in 2007 is 2.15 million kilograms. The current Refused Tea percentages of the factories within each individual Assistance Tea Commissioner (ATC) Region is more than 3%. Average Refused Tea amount was higher in factories which are located in Hatton ATC region. The lowest was recorded in Mathugama region. Significant increase of Refused Tea processing has started from December 2006. During 2006 and 2007, major portion of the Refused Tea was processed in Bandarawela ATC region. During the time period under review, Refused Tea processing has taken place in the higher elevations in considerable amounts when compared to Low and Medium. The processed quantities of refused tea have increased gradually within the last two years. But still a significant portion has remained without using any other meaningful purpose. There is a decreasing trend in the refused tea percentages in low country according to forecasted values for the next six months of the year 2008. Forecasted values are 6.68% for June, 6.57% for July, 6.5% for August, 6.47% for September, 6.45% for October and 6.45% for November. Refused Tea percentages are varied significantly among the sub districts in Low Country. Refused Tea problem can be solved through taking measures to reduce the refusing amounts and creating a value addition to Refused Tea, such as Instant tea and also producing paper materials, compost, and litter materials for poultry by using Refused Tea.

Keywords: Statistical Analysis, Refused Tea, Low Country, Time Series Techniques