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## Determining the causes of failing pre-auction tea samples at the qualitative analysis by an expert panel of tea tasters within the last five years in Sri Lanka

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Sri Lankan tea known for generations as “Ceylon Tea” is reputed for its taste and aroma the world over. In the global export front, the country holds the position of the third-largest exporter of tea. The tea processing factories for exports continually improve and upgrade to meet required technical and hygienic standards to conform to the international food safety requirements. However, it was revealed that more than 2000 pre-auction tea samples get rejected per annum. Therefore, the objective of the current study is to disclose the main factors that lead to failing pre-auction samples (FPAS) at the qualitative analysis by an expert panel of tea tasters within the last five years. Total population sampling was used as the sampling technique (n=1500). Data were analyzed with the use of SPSS. The dependent variable of the research is failing pre-auction samples (FPAS) while six independent variables have been recognized: water extract (WE), alkalinity (A), acid insoluble ash (AIA), crude fibre (CF), the microbiological requirement (MR) and not true to grade (NTG). Correlation tests were performed in order to test the hypothesis. The regression results of measuring relationships between AIA and FPAS, CF and FPAS, MR and FPAS, and NTG and FPAS signify valid regression models ( $p < 0.005$ ) which explains 47.9%, 59.4%, 51.5% and 55.7% variance of the outcome variables, respectively. It was revealed that AIA, CF, MR and NTG are significant predictors ( $p < 0.005$ ) of FPAS since beta coefficient values are greater than 0.7. The investigation intends to give helpful bits of alertness to all the stakeholders of the tea industry so that to put efforts into the reduction of failing pre-auction samples. As per the results, the highest cause of failing pre-auction samples is high levels of crude fiber which cannot be completely controlled during tea processing. Therefore, taking sufficient preventive measures at the factory level to reduce the amount of crude fiber in processed tea is vital. It was revealed that there are significant relationships between acid insoluble ash and failing pre-auction samples, crude fiber and failing pre-auction samples, microbiological requirement and failing pre-auction samples, and not true to grade and failing pre-auction samples.

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