

**EFFECT OF BREWING PARAMETERS ON TEA
TASTING TO IMPROVE THE LIQUOR
CHARACTERS OF LOW GROWN TEA IN SRI
LANKA**

A dissertation submitted to the

Faculty of Animal Science and Export Agriculture

Uva Wellassa University

In partial fulfillment of the requirements for the award of the
Degree of Bachelor of Science in Tea Technology and Value Addition

By

**SENANAYAKE RALALAGE DUSHAN AKALANKA
SENANAYAKE**

Faculty of Animal Science and Export Agriculture

Uva Wellassa University

2012

ABSTRACT

Two leaves and bud of the *Camellia sinensis* undergoes several steps in tea manufacturing process, to extract final product called as tea which is popular refreshment beverage among billions of people all over the world. The process of tea manufacturing, different sizes of leaves are categorized in to different grades. Leafy, Tippy and Dust 1 grades are differing in sizes of the leaf. The fixed brewing and temperature time in tea tasting for all grades were not effective for the extraction of full liquor characters to the brew. To determine the optimum brewing time and temperature conditions, the Leafy, Tippy and Dust 1 grades were brewed altering these parameters. Factorial design was used as the research design. Different temperature level/treatments (95⁰C, 85⁰C, 75⁰C) and different brewing time (2 min, 3 min and 5 min) were used for brewing low grown Leafy, Tippy and Dust1 grades. According to the response of the seven experienced tea tasters the data were collected by using hedonic scale. The data were analyzed using the Kruskal- Wallis non-parametric ANOVA method. Conover-Inman method was used for the selection of best treatment combination. All low grown grades have significant differences between treatment combinations for the colour, strength and flavor. The average ranks of the treatment combinations and calculated critical value from Conover-Inman method were used for the selection of best treatment. The temperature near boiling point (95⁰C) is very effective for all low grown grades to extract colour, flavor and strength to the brew. The temperature below 85⁰C is not effective for the brewing of tea. The extended brewing time (5min) is preferable for the low grown leafy and tippy grades while shorter brewing time (2 min) is preferable for the low grown Dust 1. Brewing temperature is the most significant factor for the brewing tea.

Key words: Tea, Beverage, Brewing time, Brewing temperature, Colour, Flavor, Strength.