DEVELOPING A SCIENTIFIC METHOD TO CALCULATE THE SURFACE MOISTURE OF FRESH GREEN TEA LEAVES ON WET DAYS

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ABSTRACT

Plucking is the most labor-intensive field operation in tea plantations. Laborers are paid according to the kilograms of shoots plucked. With the agreement of workers, the estate management used to deduct one kg weight from the weight of green leaf plucked in a round when there is rain during the plucking time. Although this practice is in agreement with estate level workers' union, any estate does not have any systematic methodology or governing law/ regulation to demonstrate that this deduction is appropriately justifiable. Therefore, this study was focused to develop and evaluate scientifically accepted method to determine weight reduction to offset the surface moisture of tea shoots plucked during rainy days. Different volumes of water were sprayed using a Knapsack sprayer on green leaf taken from selected field to simulate different rainfalls. Moisture contents of green leaf before and after water spraying were measured using a moisture analyzer and surface moisture contents at different simulated rainfalls were estimated. Using the data on surface moisture at different rain falls, a regression model was developed to calculate surface moisture content of tea leaf during rainy days. This model can be used to calculate the amount of weight to be deducted from the weight of tea leaf plucked during rainy days in Nuwara-Eliya and Dimbula regions.

Key words: Plucking, green leaf, weight deduction