

EVALUATION OF THE PERFORMANCE AND PROCESSING COST OF NEWLY DEVELOPED LOOSE LEAF BARN METHOD FOR CURING OF TOBACCO LEAVES

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Tobacco is the most widely grown non-food crop in the world. Traditional tobacco curing encounters a vast postharvest loss and it requires more labour. As a solution, Brazil introduced a Loose Leaf Barn (LLB) curing technology and Ceylon Tobacco Company (CTC) attempted to adapt it locally. This research was designed to evaluate the performance of newly developed LLB method and to compare it against standard values of traditional local curing method to validate the expected benefit realization. Research was carried out at CTC, Galewela. Newly designed LLB was operated four times to collect qualitative and quantitative data such as weight of the green leaves (kg) and cured leaves (kg), required man days for an operation, amount of consumed paddy husk (kg), and consumed units of electricity (kWh) on curing process. Data were analyzed to determine standard indices such as cost of processing (LKR.kg⁻¹), average price of cured leaves (LKR.kg⁻¹), ratio of the green leaves to cured leaves, green leaf handling efficiency and the amount of paddy husk required to produce 1 kg of cured leaves and compared them with the standard values. According to the results, the amount of paddy husk required to produce 1 kg of cured leaves by LLB was significantly ($p < 0.05$) lower (53.2%) than the traditional method and the other indices did not show any significant difference between the two methods. However, the profit gained by the new method is significantly lower than the traditional method ($p > 0.05$). Therefore, it is recommended to improve the performance of LLB by engaging skilled labour to make the leaf handling operation more efficient and standardization of quality of green leaves to increase average price above the standard. Further, the new model should be modified to make it more viable to local conditions before commercialization of the product.

Keywords: Curing, Green leaf, Loose leaf barn, Tobacco