

## QUANTITATIVE AND QUALITATIVE CHANGES OF STORED FLUE CURED TOBACCO (*Nicotiana tobaccum* L.)

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Post harvest losses of flue cured tobacco (*Nicotiana tobaccum* L.) are receiving considerable attention during long term storage. This study was carried out to assess the changes of quality and quantity losses of flue cured tobacco at normal warehouse conditions at the Ceylon Tobacco Company (CTC), Mawilmada, Kandy. Tobacco samples were assessed weekly for weight loss, moisture content, and some chemical constituents such as Sugar, Nicotine and Chlorides. Relative humidity and temperature of the warehouse were measured daily. Proximate composition of total Nitrogen, Water soluble Nitrogen, Calcium, Potassium and Phosphorous was assessed initially and at the end of the study. Molds of tobacco were cultured on PDA media for identification.

Results indicated that loss of weight was about 9% during three months of storage period. After six weeks, weight loss was significantly increased and was highly depended on warehouse relative humidity. Sugars were significantly decreased with the time. *Aspergillus*, *Actinomyces* and, *Mucor* were isolated from infected tobacco where *Aspergillus* was predominant. Cigarette beetle (*Lasioderma serricorne*) was the most serious insect infesting stored tobacco. Quantitative and qualitative losses of stored tobacco were strongly associated with warehouse storage conditions. Therefore proper storage and improvement of warehouse sanitary conditions is necessary to minimize the Post Harvest losses of flue cured tobacco.

**Key words:** Flue cured tobacco, PDA media, *Aspergillus*, *Actinomyces*, *Lasioderma serricorne*