

FACTORS AFFECTING THE LEVEL OF EFFECTIVENESS OF DRYERS USED IN SRI LANKAN TEA MANUFACTURING

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ABSTRACT

Drying of tea is one of most important processing stages in tea manufacturing. Drying process consumes high amount of thermal energy and it is done with the use of different dryers. There are three different types of dryers namely ECP (Endless Chain Pressure), FBD (Fluidized Bed Dryer) and Combination Dryers. Practically, the effectiveness (actual output gained during the production to the rated output) of dryers is lower due to different reasons.

Therefore, a study was done to find out the factors affecting on level of effectiveness of dryers used in Sri Lankan tea manufacturing. Wither percentage, age of the dryers, firewood moisture content and dhool percentage are some of those. Data were collected from several tea factories in three different regions Up, Low and Mid country of Sri Lanka. A regression analysis was done to check the effect of those factors to the effectiveness of different types of tea dryers.

The results of the study reveal that wither percentage, age of the dryers, firewood moisture content and dhool percentage had positive impacts on the level of effectiveness of dryers used in Sri Lankan tea manufacturing. There may be other reasons affecting for the deviation of mentioned rated output from the actual output of these dryers and this will lead for future research opportunities.

Key Words: Different dryers, Factors, Level of effectiveness, Tea manufacturing