

## **Tea and Moringa Leaves Preservation Using Dehydration (Withering) Method**

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### **Abstract**

Food leaves are widely use in both local and international market. One of the main export crops in Sri Lanka is tea. In European market there is a huge demand for herbal tea. Tea and herbal leaves preservation using dehydration (withering) method is an important technique. The problem was identified as scarcity of effective, efficient, and low-cost withering machines for small scale industries in local market. The project recognized the necessity, conducted lab experiments for data acquisition, assessed the mechanism, and developed a prototype. In design phase, three conceptual designs were created, and morphological analysis was done to find the best method. The final design was chosen for the leaves to roll and mix well, leaved moving in the three-dimensional space. Therefore, area of exposure to warm air is higher. And all the leaves wither equally without being burned. The method significantly increases the quality of the tea as well as reduce the withering time.

**Keywords:** *Dehydration, Withering, Crops, Morphological analysis*