

ABSTRACT

PT. Andalas Fiddini Agrotama is one of the companies engaged in the fruit business. The volume of fruit sold in large quantities and in the case of this study the fruit sold is mangosteen exported to China. The high demand for fruit from other countries makes the company continue to work to improve the quality of the company both financially and non-financially. In this case one non-financial aspect is the production process at the workstation. In the production process of mangosteen fruit packaging, the transfer of fruit from the washing area to the cleaning area still uses manual material handling and without tools. The process causes a low volume of material movement, but with workload that exceeds the safety limits of workers, it is one of the causes of waste of waiting which results in not achieving the production target. For this reason, this study aims to design a material handling equipment as a tool for workers when moving the fruit. This design uses Nigel Cross's rational product design method to design and obtain the best combination of material handling equipment concepts that can meet the required criteria.

Keywords: *Material Handling Equipment, Rational Product Design Methods, Mangosteen Fruit*