

ABSTRACT

Agriculture and farming is one of the sectors that have the potential in West Java province in view of climate and soil fertility when compared to other provinces. PT Abo Farm is one of the companies doing business in agriculture and plantations, which distributes food needs and vegetable in some areas in the province of West Java. Garden that produces a variety of vegetables including cabbage, peppers, eggplant, and tomato. Among these vegetables, the tomato is a vegetable that is most often produced by PT Abo Farm as demand for these products is always there, the production process does not require large maintenance costs, and the availability of tomato vegetable seedlings is much larger comparison with other plants.

Tomato vegetable planting period is 3 months. During that time there were 12 times the harvest in the period. One tomato bag seedlings can produce at least 3015 kg. Tomatoes are then transported from the farm to the point of collection pieces by porters who worked at PT Abo Farm. The distance through from the garden tomatoes to the collection point within about 900m. The road condition from the garden to the fruit collection points, narrow and passable only one person. Not to mention the road conditions up and down like a plantation area. The amount of tomatoes is carried by porters average - They carry 70 kg each way. This is based wage system is implemented farmers around Ciwidey ie Rp.500,00 / kg.

Each harvest process, at least 10% of tomatoes which can not be sold because of damaged or broken after going through the process of transportation from the field to a collection point for the fruit. This causes at least for one bag of seed PT Abo Farm produce a product defect by 10%, or at least there were 315 kg of tomatoes are broken. Conveyances used tomatoes from the garden to the collection point using only fruit sack considered a cause of their tomatoes were damaged.

The new design proposed in this study to analyze resistance to existing conveyance and its influence to user ergonomics means of conveyance. By performing simulation using Ulrich and Steven D.Epinggermethods in product design software

Keywords: Product design, Product defect, Ulrich and Steven D.Epingger, Ergonomics,material handling