ABSTRACT

The abundance of cassava in Indonesia makes people have a great opportunity to process cassava into derivative products, one of which is peuyeum, which is fermented cassava using yeast. In Cimenyan District, located in Bandung Regency, there is a pioneer SME in peuyeum production that has been established since 1998, namely SME Peuyeum Bandung 1. In the process of peeling the cassava skin, it was found that the peeling was thick so that a lot of cassava meat was peeled off and affected the weight of cassava that would be processed into peuyeum. This problem became a point of reference in this final project research to produce a peeler knife design that suits the needs of SME Peuyeum Bandung 1.

This research was conducted by considering the actual conditions in SME Peuyeum Bandung 1 whose entire production process is manual, the reverse engineering method is used by analyzing the existing peeler knife as the main reference in designing a similar knife as a proposed product but has shrunk the shortcomings and increased the advantages of the previous product.

The results of designing a cassava skin peeling knife that has conducted testing obtained significantly improved cassava epidermis peeling results, which became as thin as 0.8 mm from the previous 3 mm thick. Also the weight of the peeled cassava became 20 grams which is 6.67% of the total cassava weight. This is due to the addition of a blade that has a sharp cutting angle of 20 ° and the distance between the blades is only 1 mm. Then for the knife handle the grip shift that occurs is very small so that the knife is not released when used due to the addition of the grip design on the knife handle. The proposed knife resulted in a significant improvement in the peeling of the cassava skin. This improvement was able to overcome the main problem related to thick peeling, reducing the amount of cassava meat that was wasted and affecting the weight to process cassava into peuyeum.

Keywords: Peuyeum, SME, Peeling Knife, Reverse Engineering