

ABSTRACT

The seafood grinder with mixer was designed to help the local entrepreneurs in grinding their seafood product. The main objective of this study was to design, fabricate and evaluate a seafood grinder with mixer. The designed seafood grinder with mixer was based on the researchers' idea and the suggestions of the Advisory Committee. The fabrication of seafood grinder with mixer was done at Lawaan, Roxas City, Capiz. The fabrication process of machine follow the standard process of fabricating. The final testing and evaluating of seafood grinder with mixer was done at the Agricultural Engineering Department. The results of performance evaluating for four mm and six mm plate of the seafood grinder with mixer are as follows: the input capacity were 60.17 kg/hr and 105.27 kh/hr, output capacity were 9.28 kg/hr and 11.69 kg/hr, grinding recovery were 80.64 percent and 86.52 percent, grinding efficiency were 80.48 percent and 86.43 percent, mixing rate were 9.21 kg/hr and 12.19 kg/hr, mixing efficiency were 87.34 percent and 96.79 percent, the electric energy consumed during the testing were 0.22 kW-hr and 0.23 kW-hr. The cost analysis was determined with investment cost of Php. 44, 610, total annual cost of Php 16, 059.60/yr, operating cost of Php 15.66/hr, custom hiring fee of Php 20.358/ kg, recovery period of Php 3.26/yr, rate of return of 31 percent and break even use of 23.39 kg/hr. The output product for three commodities when subjected to hedonic test were rated "like very much" by the respondents.

Keywords: *seafood grinder, mixer, seafood.*