ABSTRACT

RURI WIJAYANTI. Study of Engineering Process on Vacuum Frying and Business Feasibility of Banana Chips Production. Under direction of I WAYAN BUDIASTRA and ROKHANI HASBULLAH

Vacuum frying is a new technology that can be used to improve quality attributes of fried food because of low temperatures process. The objectives of this study is to assess the effects of oil temperatures and exposure time of frying on physico-chemical and organoleptic properties of banana chips to get a better quality products, to determine packaging material that can extend shelf life of banana chips, to predict shelf life of banana chips using the method of acceleration and to calculate production costs and the business feasibility of vacuum fried banana chips. The quality parameters tested include water content, fat content, colour, thickness and organoleptic test. Banana chips were fried in oils with temperature of 60, 70, 80, and 90 °C and time of frying 30, 45, 60 and 75 minutes. The result showed that the temperature and frying time is significantly influence the quality and characteristics of the products. The best quality of banana chips obtained at frying temperature of 80 °C for 60 minutes. Aluminum foil can maintain the shelf life of banana chips for 115 days of storage, while the PP is only for 70.6 days of storage based on water content parameter. Banana chips business eligible to run if production capacity is 4 kg or more.

Key words: Banana, vacuum fryer, self life, the feasibility.