ABSTRACT

WALDEMAR BASTIAN SEMBIRING. Use of Chitosan as a Composite Gel and Edible Coatings and the Influence of Room Temperature Storage Quality and Durability Power of Empek-empek. Supervised by RIMBAWAN and PIPIH SUPTIJAH.

The general objective of this research is studying the use of chitosan as gelling and edible coating on the organoleptic quality of the physical and sensory quality as well as the influence of temperature of storage space proven through testing, these are chemical, microbiological and digested tests product of empek-empek. Stages of research conducted consisted of two stages, namely early stages of research and advanced research stages. Preliminary study aims to determine the best concentration of the addition of chitosan as gelling agent in making empek-empek concentration of 0%, 0.1%, 0.2%, 0.3% and 0.4% with the organoleptic test I, the best concentration was chosen after determination of concentration and then perform the best in the addition of chitosan as an edible coatings with a concentration of 1%, 1.5% and 2% by organoleptic tests II. Organoleptic test parameters I and II used include appearance, color, flavor, texture and aroma. Determination of the best formulations of empek-empek organoleptic quality products are based on my tests as a gelling chitosan 0.3% and based on the organoleptic quality test II test as a physical sensory and edible coating of chitosan 1.5%, to obtain the composition of K 0.3% (EC 1.5%). Critical control points of empek-empek during storage at room temperature was 5-7 hours, while the best elect of empek-empek is 84 hours, so it can be presumed that these provisions can extend the shelf-life of empek-empek stored at room temperature. Effect of storage at room temperature (for 4 days) against empek-empek elected and controls showed that chitosan can enhance the quality of chemicals that includes the value of water activity, pH, moisture content, ash content, and levels of total protein digestibility and quality include the protein digestibility and the digestibility of starch empek-empek elected. Comparison of selected test products with commercial products showed that the hedonic scale empek-empek elected for a better score on the parameters of taste and aroma. This study shows that chitosan is used as a gelling agent and edible coatings can extend the shelf life at room temperature with maintaining quality and durable power of empek-empek.

Keyword: empek-empek, chitosan, gelling, edible coatings