ABSTRACT

The purpose of this researce was to determine the effect of concentration lime and carrageenan concentration on the characteristics of edible film carrageenan. The model of experimental design used in the research of edible film carrageenan study is a Randomized Block Design (RAK) with 2 (two) factors, conducted with 3 (three) times repeatitions, so that it obtained 27 experimental unit. Factors experiment consists of lime concentrations (1%, 1.5%, 2%) and carrageenan concentration (0.6%, 0.8%, 1%).

Chemical response conducted on that edible film carrageenan is to determinate the water content, the physical response of the speed-soluble, tensile strength, percent elongation, and water vapor transmission rate, organoleptic response to the texture (elasticity), appearance, and colour, the response of microbiology to the Total Plate Count (TPC).

The results of the analysis showed interactions between lime concentration andcarrageenan concentration wereof the speed-soluble, Total Plate Count (TPC), texture (elasticity), and appearance of edible film carrageenan. Selected treatment of primary research were used formulations m2n1 wherein the concentration of lime amounted to 1.5% and the concentration of carrageenan 0.6% to the value of tensile strength of 12,523 MPa and percent elongation 30,320% and the water vapor transmission rate of 517,747 g / m2 / 4h and m3n1 wherein the concentration of oranges by 2 % and carrageenan concentration of 0.6% with a value of 9,7339 MPa tensile strength and percent elongation 23,531% and the water vapor transmission rate of 503,024 g / m2 / 24h.

Keywords : Edible film, lime concentration, carrageenan concetration, carrageenan