

The Effect of Sugar and Mustard on the Quality of Mayonnaise from Virgin Coconut Oil

Lastri Wiyani¹, Munira¹, Nurhalifa¹, Nirma¹

¹*Department of Chemical Engineering, Faculty of Industrial Technology, Universitas Muslim Indonesia, Makassar 90231, Indonesia*

**Presenter email: nirmaputeri148@gmail.com*

Abstract. Mayonnaise is a type of sauce that is most commonly used in various foods around the world. In Indonesia, mayonnaise has long been known to the public and is often used as a sauce on foods such as salads, meatballs, sausages, and others. The purpose of this study was to determine the effect of sugar and mustard concentration on the quality of mayonnaise made from VCO and coconut water. The process of making mayonnaise based on VCO and coconut water is to mix VCO and coconut water, xanthan gum 0.75%, salt 0.5%, lime 5%, sugar 1%, and mustard 0.5%. Then stirring was carried out using an ultra turrax tool at a speed of 15000 rpm for 4 minutes until an emulsion was formed. This procedure was repeated with the addition of 1%, 2%, 3% sugar and the addition of 0.5%, 1%, 1.5%, 2%, 2.5% mustard. Analyses were conducted on the quality of physical, chemical and nutritional content in mayonnaise. The addition of sugar to mayonnaise did not affect stability, increased viscosity and pH, and decreased the water content of mayonnaise. While the addition of mustard has no effect on stability and moisture content, viscosity and pH increase as mustard concentration increases. When compared to SNI 01-4473-1998, the nutritional content of mayonnaise with 3% sugar and 0.5% mustard met the requirements for carbohydrate (2.51%) and ALT (1.8×10^2 colonies/g). However, protein (0.17%) and fat (43.19%) were lower than the SNI, while water content (53.34%) in mayonnaise was higher than the SNI.

Keywords: Coconut Water, Mayonnaise, Mustard, Sugar, VCO