ABSTRACT

Nadia Ayu Kristanti, *Analysis of Histamine Content in Loin-Shaped Tuna (Thunnus sp.) in the Denpasar Region, Bali. Supervised by* Hanandayu Widwiastuti, S.Si., M.Si.

Tuna is one type of deepsea fish that has many benefits and is one of the most widely consumed fish in Indonesia. This fish contains quite high levels of water and protein, therefore tuna is a good medium for accelerating bacterial growth. One of the causes of decreased fish quality is the presence of enzymatic, chemical and bacterial reactions that are greatly influenced by temperature factors. Freshness of fish is a very important factor in relation to fish quality. Histamine levels are used as an indicator of the quality and safety of tuna products, because high histamine content can cause poisoning if consumed in excess. Histamine is the causative agent of scombroid poisoning. Scombroid fish poisoning or histamine poisoning is a syndrome that resembles an allergic reaction after consuming fish contaminated with high levels of histamine. Therefore, in this study, histamine levels were tested to determine the quality of tuna fish in the form of loins taken from several companies located in the Denpasar area of Bali. This research was conducted at PT Seafood Inspection Laboratory, which is a private laboratory located in the Denpasar area, Bali. The method used in this study is the Enzyme-Linked Immunosorbent Assay (ELISA) method. This method has the principle of antigen-antibody detection, where histamine in the sample is identified and measured using antibodies specific to histamine. The results of the histamine levels in samples 1-6 were 0,4 ppm; 0,4 ppm; 0,7 ppm; 0,5 ppm; 0,7 ppm and 0,5 ppm, respectively. Based on SNI 2729-2021 concerning fresh fish, the maximum histamine level requirement is 100 ppm. Therefore, it can be concluded that all histamine levels detected are still below the threshold allowed by the government and are declared valid.

Keywords: Histamine, ELISA, tuna, loin