Acrylamide is a probable human carcinogen and is potentially formed in ambon banana chips due to its reducing sugar and asparagin content and the involvement of frying process. This research aims to reduce acrylamide formation in ambon banana chips by using blanching and pectin-based edible coating. Blanching treatment was conducted at 90 °C, and 100 °C for 1 minute while concentration of pectin-based edible coating was 0 and 2 % (w/v). Acrylamide level was analyzed by enzyme-linked immunosorbent assay (ELISA) method. Ambon banana chips prepared without blanching and edible coating contains 194.40 ppb of acrylamide. Edible coating reduced 33.02 % of acrylamide level whereas blanching at 90 °C and 100 °C reduced 20.06 % and 52.47% of acrylamide levels, respectively. Interestingly, combination of blanching and pectin-based edible coating could reduce intensively acrylamide level in banana chips until 90% of reduction. However, with only blanching pretreatment, it induced an important change in physical characteristics of products and reduced consumer preference which was indicated by lower hedonic scores compared to those of the control.

Keywords: ambon banana chips, acrylamide, blanching, pectin-based edible coating