ABSTRACT

The aim of this research was to determine optimal formulation of black mulberry and cocoa powder jam sheet with raw and additional material (black mulberry pure and cocoa powder) and also to knew the characteristic of black mulberry and cocoa powder sheet jam. This research consist by two steps: there was preliminary research to knew the analysis raw material result which chosen by pH, fat content, and total sugar content. Then, main research would determined the optimal formulation of black mulberry and cocoa powder jam sheet with raw and additional material (black mulberry pure and cocoa powder) used design expert 7.0 program d-optimal method. The result of responses for selected formulation are pH 3.55; moisture content 27.57%; antioxidant activity 971,1549 ppm; total sugar content 48.6641%; texture analysis obtained gel strength 4.50 gram force; organoleptic score obtained colour score 5; aroma score 4.8 and taste score 4.93. Based on optimal formulation which is offered by program and compared with laboratory analysis, so it could be evidenced by desirability value with score 0.622, so the difference between the analysis and the program didn’t get to far.

Keywords: black mulberry, cocoa powder, jam sheet, optimal formulation.