

ABSTRACT

The purpose of this research was to determined optimal formulation of black mulberry effervescent with raw and additional material (black mulberry powder, tartrat acid, sodium bicarbonate) and also to knew the characteristics of black mulberry effervescent. This research consist by two steps: there was preliminary research to knew and compared the analysis raw material result which chosen by vitamin C, pH and antioxidant activity with the effervescent product. Then, main research would determined the optimal formulation of black mulberry effervescent with raw and additional material (black mulberry powder, tartrat acid, sodium bicarbonate) used design expert 7.0 program d-ptimal methode. The result of the optimal formulation was contained 44,000% black mulberry powder; 14,468% tartrat acid; 21,532% sodium bicarbonate and constant variable percentage is 5% maltodextrin and 15% citrit acid, solubility time 261 second; hardness 4 kgf; pH 5,04; vitamin C level 0.020 %; organoleptic score obtained colour score 4,13 ; aroma score 2,90 and taste score 3,13. Based on optimal formulation which is offered by program and compared with laboratory analysis, so it could be evidenced by desirability value with score 0,771, so the difference between the analysis and the program didn't get to far.

Key words : black mulberry effervescent, optimal formulation