ABSTRACT

The purpose of this research is to gain the kind of foam agent was selected and the right concentration of fruit juice, as well as knowing the study treatment against black mulberry powder drink produced, both in response to chemical, physical response and the response of organoleptic. The benefits of this research to increase knowledge and skills about the use of black mulberry fruit as an ingredient powder drink, help farmers and traders who are interested in processing the black mulberry fruit and help the government to create new job opportunitie,and to make information about the latest innovations on black mulberry powder drink to the community that contains the value of healthy nutrition.

The research method consists of preliminary research and primary research. The draft analysis conducted was a randomized block design (RAK) with a 2x3 factorial design with 4 replications. The Factor was used are the type of foaming (foam agent) (albumin and tween 80) and the concentration of fruit juice (57%, 62% and 67%). The response in the study include response to chemical, physical response, and the response organoleptic. Chemical response includes the analysis of the levels of vitamin C, response speed test physics include soluble and organoleptic response hedonic scale test, as well as on selected sample testing antioxidant activity.

Analysis of the raw material black mulberry juice contained vitamin C amounted to 2.91 mg / 100 g and antioxidant activity of 285.710 ppm. Results of preliminary research shows that the drying temperature used in the main study is 70^0C. The main result of foaming agent type are significant effect on the speed dissolved, the solution's color, aroma solution and flavor solution powder drink black mulberry. The main result of the concentration of fruit juice significantly affect the analysis of the levels of vitamin C, the solution's color, aroma solution and flavor solution powder drink black mulberry. Based on the organoleptic attributes of the solution's color, aroma solution, flavor solution, the speed of late, and analysis of the levels of vitamin C, obtained samples were selected, namely powder drink black mulberry with treatment f2m3 (type of foaming tween 80 and concentration of fruit juice 67%) with a speed of late of 0,226 gram / sec, Vitamin C content of 1,400 mg / 100 grams, the average results of organoleptic attributes of color for 4858, amounting to 4,417 attributes aroma, and flavor attributes of 4.217, as well as antioxidant activity amounted to 3901.034 ppm.

Keyword: *Black Mulberry, Foaming Agent, Concentration Black Mulberry Fruit Extract, Powdered Beverages.*