

Abstract

*The dipping brew is a mixed plant-based beverage product that has advantage to help treatment of a disease or as a refreshing body drink. One of the ingredients that can be used for dipping brew is Moringa leaves and black grass jelly leaves. However, in the research on the existing of Moringa leaf drink, it still produces an unpleasant aroma. Thus, this research uses black grass jelly leaves to combine it. Due to the black grass jelly leaves have a distinctive aroma. This research was conducted to discover the effect of the formulation of moringa leaves (*Moringa oleifera* Lamk.) and black grass jelly leaves (*Mesona palustris* B) on the physical, chemical, and organoleptic qualities of dipping brew of Moringa leaves and black grass jelly leaves. There are 2 factors with 3 levels and 2 replications. Factor 1 is the formulation (40:60, 30:70 and 10:90) and factor 2 is the drying temperature (55°C, 60°C and 65°C). The variables measured in this research were physical quality (color test), chemical quality (antioxidant activity test and water content test), and organoleptic test (color, aroma, taste). The analysis technique used was analysis of variance (ANOVA) at $\alpha = 0.05$ then it was processed using the SPSS application program, if the treatment indicated the real difference, then it was proceeded with the Duncan test or DMRT. The results showed that the drying temperature in the production of dipping brew of Moringa leaves and black grass jelly leaves had a significant effect on $\alpha = 0.05$ on the physical color test, antioxidant activity test, and hedonic quality test. Meanwhile, the formulations were not significantly different for all variables. The interaction between both of them was significantly different in the antioxidant activity test. In this research, the highest antioxidant activity was $4.29 \mu\text{g} / \text{ml}$, namely at a concentration of 40:60 with a temperature of 55°C. Dealing with the research result, it is recommended to use a concentration of 40:60 with a temperature of 55°C in making dipping brew of moringa leaves and black grass jelly leaves to obtain high antioxidant activity values.*

Keywords: Moringa leaves, black grass jelly leaves, dipping brew, the activity of antioxidants.