

Optimasi Proporsi Tepung Ubi Jalar Ungu dan Waktu *Proofing* Dalam Pembuatan Roti Tawar Menggunakan RSM (*Optimizing the Proportion of Purple Sweet Potato Flour and Proofing Time in Making White Bread Using RSM*)
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ABSTRACT

Purple sweet potato is a type of tuber that contains many nutrients, one of which is anthocyanin. For the human body, anthocyanin can be useful as an antioxidant. In its processing, purple sweet potato can be made into various products, one of which is flour. White bread is one of the bread products that can be substituted using purple sweet potato flour to increase its nutritional value. However, in white bread with purple sweet potato flour substitution, its specific volume can be reduced. Therefore, this study was conducted with the aim of optimizing the proportion of purple sweet potato flour (2-10%) and proofing time (60-120 minutes) using Response Surface Methodology (RSM) to increase its specific volume and antioxidant activity. The results of the optimization of the optimum combination of purple sweet potato flour proportions were 7.846% and proofing time for 120 minutes with a desirability value of 0.922 which was predicted to produce a specific volume of 4.121 cm³/gram and antioxidant activity of 68.886%. The actual test results obtained a specific volume value of 4.26 cm³/gram and antioxidant activity of 68.19%. The predicted and actual values were validated using a one sample T-test and showed no significant difference (>0.05) and an accuracy value of 96.74% was obtained for the specific volume and 98.99% for antioxidant activity.

Keywords: *antioxidant activity, optimization, white bread, RSM, purple sweet potato flour, proofing time*