

Project	An Optimal Ratio of Riceberry Flour to Glutinous Rice Flour For Quality Characteristics of Gluten-Free Cookie
Author	Miss Namfon Lainaree Miss Jeerawadee Noppakhon
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Advisor	Dr. Kitisart Kraboun
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Abstract

This project aimed to study an optimal ratio of riceberry Flour to glutinous rice flour for quality characteristics of gluten-free cookie. The various ratios of riceberry flour to glutinous rice flour formulated were 0:25:75 (formula 1), 0:50:50 (formula 2), 0:75:25 (formula 3) and 0:100:0 (formula 4) by weight, respectively. The results showed that the formula 4 of the cookie had lower liking scores than the control (100% of wheat flour) but it had higher liking scores than other formulae. Moreover, the lowest moisture content and a_w value occurred in the formula 4 of cookie were 5.73% and 0.58, respectively. It might be due to high retrogradation reaction affecting increasing the water loss rates of this formula cookie as well as leading to reducing a_w values. The hardness of the formula 4 of cookie was 33.49 Newton because it contained the high contents of riceberry flour, rich in high amylose contents. Nevertheless, the spread rate of the cookie was 2.40 which was lower than those of other formulae ($p \leq 0.05$). The lowest L^* , a^* and b^* values of the cookie were 20.50, 3.42 and 2.82, respectively, because it consisted of the high contents of anthocyanin appeared in the riceberry flour.

Keywords Gluten Riceberry flour Glutinous rice flour