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**PENGARUH PROPORSI TEPUNG UBI ALABIO (*DIOSCOREA ALATA L*) DAN TEPUNG TERIGU TERHADAP DAYA KEMBANG DAN DAYA TERIMA MUFFIN SEBAGAI MAKANAN SELINGAN ALTERNATIF UNTUK PENDERITA DIABETES MELLITUS TIPE 2**

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(xviii + 74)

Penderita diabetes melitus memerlukan makanan selingan alternatif untuk membantu mencukupi kebutuhan gizi dan mengontrol kadar gula darah. *Muffin*, yang dibuat dari ubi alabio yang mengandung serat yang tinggi, amilosa, pati resisten, dan indeks glikemik yang rendah, dapat dijadikan alternatif makanan selingan bagi penderita diabetes melitus tipe 2. Penelitian ini bertujuan untuk menganalisis pengaruh proporsi tepung ubi alabio dan tepung terigu terhadap daya kembang dan daya terima *muffin* dengan rancangan acak lengkap (RAL) dengan berbagai persentase perlakuan proporsi tepung ubi alabio dan tepung terigu sebagai berikut: P0 (0%:100%), P1 (45%:55%), P2 (60%:40%), P3 (75%:25%) dan P4 (90%:10%). Daya kembang dianalisis menggunakan uji *One-Way ANOVA* dan dilanjutkan dengan uji Duncan (DMRT). Daya terima dinilai dengan metode *hedonic scale scoring*, dan dianalisis dengan uji *Friedman* yang dilanjutkan dengan uji Wilcoxon. Hasil uji statistik menunjukkan bahwa *muffin* dengan perlakuan P1 paling disukai oleh panelis dari daya terima warna ( $p=0,000$ ), aroma ( $p=0,000$ ), tekstur ( $p=0,000$ ), dan rasa ( $p=0,000$ ). Daya kembang *muffin* dengan perlakuan P0, P1, P2, P3, dan P4 masing-masing adalah sebesar  $121,74 \pm 6.13\%$ ,  $108,69 \pm 2.87\%$ ,  $68 \pm 7.63\%$ ,  $64 \pm 6.43\%$ , dan  $60,86 \pm 7.23\%$ . *Muffin* dengan perlakuan P1 memiliki daya kembang yang baik dan paling disukai oleh panelis dari segi warna, rasa, aroma, dan tekstur.

Kata kunci: Daya kembang, daya terima, *muffin*, tepung ubi alabio, tepung terigu

## **ABSTRACT**

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### ***EFFECT OF THE PROPORTION OF PURPLE YAM (DIOSCOREA ALATA L) AND WHEAT FLOUR ON THE RAISING ABILITY AND ACCEPTABILITY OF MUFFIN AS AN ALTERNATIVE SNACK FOR PEOPLE WITH TYPE 2 DIABETES MELLITUS***

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*People with diabetes mellitus need alternative foods to help them meet their nutritional requirements and control their blood sugar levels. Muffin, which is made from purple yam that contains high fiber, amylose, resistant starch, and a low glycemic index, can be an alternative snack for people with type 2 diabetes mellitus. This study aimed to analyze the effect of the proportion of purple yam and wheat flour on the raising ability and acceptability of muffin. This study used a completely randomized design (CRD) with various treatment proportions of purple yam and wheat flour as follows: P0 (0%:100%), P1 (45%:55%), P2 (60%:40%), P3 (75%:25%), and P4 (90%:10%). The raising ability was analyzed using the One-Way ANOVA test followed by the Duncan's test (DMRT). The acceptability was assessed using the hedonic scale scoring method, and analyzed by Friedman's test followed by the Wilcoxon test. The results of statistical test showed that the muffins with P1 treatment were the most preferred by the panelists in terms of color ( $p=0,000$ ), aroma ( $p=0,000$ ), texture ( $p=0,000$ ), and taste ( $p=0,000$ ). The raising ability of muffins with P0, P1, P2, P3, and P4 treatments were  $121,74 \pm 6.13\%$ ,  $108,69 \pm 2.87\%$ ,  $68 \pm 7.63\%$ ,  $64 \pm 6.43\%$ , dan  $60,86 \pm 7.23\%$ . Muffins with P1 treatment had a good raising ability and most preferred by panelists in terms of color, taste, aroma, and texture.*