Formulasi Uji Hedonik Dan Analisis Kandungan Gizi Cookies Tepung Ampas Kelapa Dan Tepung Kulit Buah Manggis Untuk Penderita Diabetes Tipe II = Formulation Hedonic Tes And Nutrition Analysis Of Coconut's Waste Fluor And Mangosteen Skin Flour Cookies For Type II Diabetes

Clara Nadya Puspasari, author

Abstrak

Kejadian diabetes di dunia pada tahun 2008 adalah 347 juta orang, dan pada tahun 2030 diperkirakan prevalensinya naik sebesar 69% pada negara berkembang. Ditemukan bahwa pengkonsumsian antioksidan contohnya kulit buah manggis dapat melawan stress oksidatif penderita diabetes. Selain itu, mengkonsumsi makanan kaya serat contohnya ampas kelapa sangat dibutuhkan untuk mencegah komplikasi diabetes lainnya. Tujuan penelitian adalah membuat formula, uji hedonik, dan analisis kandungan zat gizi cookies tepung ampas kelapa dan tepung kulit buah manggis. Penelitian yang dilakukan meliputi pembuatan tepung, optimasi formula cookies dengan piranti lunak Design Expert ® , uji hedonik, dan analisis kandungan gizi cookies.

Terdapat perbedaan kesukaan responden penderita DM yang signifikan (p value < 0.05) pada respon warna, rasam dan tekstur cookies. Optimasi formula yang didapatkan adalah komposisi tepung terigu : tepung ampas kelapa : tepung kulit buah manggis sebesar 21.286 : 14.128 : 4.586 gram dengan nilai desirability 79.7%. Kandungan gizi cookies kadar air 4.08%, kadar abu 1.79%, lemak total 31.87%, protein 4.35%, karbohidrat total 57.91%, serat kasar 5.04%, gula total 18.93%, Jumlah energi cookies adalah 536 kkal/100gram dan cookies mengandung aktivitas antioksidan 2903.78 mg AAE/g. Untuk penelitian selanjutnya diharapkan dilakukan Uji Indeks Glikemik cookies dan pengembangan dalam berbagai produk lainnya.

.....The occurence of diabetes in the year 2008 in the world is 347 million people, and in 2030 the prevalence is estimated to rise by 69% in developing countries. It was found that the consumption of antioxidant such as mangosteen skin could lessen the oxydative stress that the diabetics suffer from. Consuming foods rich in fiber such as coconut’s waste is really essential to prevent another diabetes complication. The purpose of this research is to determine the formula, to test the hedonic, and also to analize the amount of nutrition within this type of cookies. Research which has been done included flour making, optimizing cookie’s formula with Design Expert ® software, hedonic test, and analizing the cookie’s amount of nutrition.

There are specific different on respondent’s preferness who suffer DM in significant value (p value < 0.05) on the respond of color, flavor and the texture of the cookies. The optimizing of this formula is achieved by the compotition of flour, coconut’s waste flour, and also mangosteen skin flour in amount of 21.286 : 14.128 : 4.586 with the desirability of 79.7%. The nutrition amount of cookies are 4.08% of water, 1.79% of ash, 31.87% of total fat, 4.35% of protein, 57.91% of total carbohydrate, 5.04% of crude fiber, and 18.93% of total sugar. The energy amount is 536 kcal of energy and the cookies contain 2903.78 mg AAE/g of total antioxidant activity. For further research, Glicemic Indeks Test and development in any other products are expected to be concluded.