

SIFAT KIMIA DAN ORGANOLEPTIK BROWNIS KUKUS DARI FORMULASI BUAH TIN

ABSTRAK

Tujuan penelitian adalah mengetahui perlakuan terbaik brownis yang memiliki nilai energi paling rendah, kadar serat dan aktivitas antioksidan tertinggi pada formulasi buah tin yang berbeda. Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL). Uji organoleptik menggunakan panelis tidak terlatih wanita usia subur (WUS). Uji efektivitas menghasilkan perlakuan terbaik pada substitusi 60% buah tin dengan nilai hasil 0,98. Terdapat perbedaan nyata daya terima brownis pada uji statistik Friedman (Chi-Square hitung > Chi-Square tabel). Parameter yang dianalisa adalah kadar karbohidrat, protein, lemak, kadar air, kadar abu, total serat kasar, aktivitas antioksidan (IC50) dan nilai energi. Uji statistik menggunakan Anova dan *Duncan Multiple Comparison* menunjukkan perbedaan kadar zat gizi yang nyata pada perlakuan brownis (signifikansi < 0.05). Hasil penelitian menunjukkan kalori tertinggi pada brownis tanpa perlakuan sebesar 305.13 Kcal, sedangkan perlakuan proporsi buah tin kalori tertinggi pada perlakuan buah tin 20% sebesar 290.81 Kcal. Kadar Karbohidrat tertinggi pada brownis tanpa perlakuan sebesar 23.16% dan perlakuan 20% buah tin sebesar 21.18%. Kadar protein tanpa perlakuan adalah 7,43% dan tertinggi pada perlakuan 20% buah tin sebesar 7.16%. Kadar lemak tertinggi pada brownis tanpa perlakuan sebesar 20.21% dan tertinggi pada perlakuan 20% buah tin adalah 19,72%. Kadar air terbaik pada brownis tanpa perlakuan sebesar 26.66% dan pada perlakuan 20% buah tin sebesar 35.21%. Kadar abu terbaik pada brownis perlakuan 60% sebesar 1,26% dan pada perlakuan 40% adalah 1,43%. Kadar serat kasar yang terbaik ada pada perlakuan formulasi 60% buah tin sebesar 2,42% dan perlakuan buah tin 40% dengan kadar serat 2,18%. IC50 tertinggi pada perlakuan 60% buah tin sebesar 117.15 ppm. Perlakuan terbaik brownis kukus formulasi buah tin memiliki nilai kalori terendah, kadar serat dan aktivitas antioksidan yang tertinggi diantara semua perlakuan.

Kata kunci : Antioksidan, Brownis, Buah Tin, Obesitas, Organoleptik, Zat Gizi

CHEMICAL AND ORGANOLEPTIC PROPERTIES OF STEAM BROWNIES FROM FIGS FRUIT FORMULATION

ABSTRACT

The purpose of this study was to determine the best brownies treatment which has the lowest energy value, fiber content and the highest antioxidant activity in different figs fruit formulations. The research design used was a Completely Randomized Design (CRD). The organoleptic assay using panelists of untrained women of childbearing age (WUS). The effectiveness test produces the best treatment on the substitution of 60% of figs with yield value of 0.98. There is a significant difference in the brownies acceptance in the Friedman statistical test (Chi-square count > Chi-Square table). The parameters that analyzed were carbohydrate, protein, fat, water content, ash content, total crude fiber, antioxidant activity (IC50) and calory value. Statistical tests using Anova and Duncan Multiple Comparison showed significant differences in nutrient levels in brownies treatment (significance <0.05). The results showed the highest energy in brownies without treatment amounted to 305.13 Kcal, while the treatment of the highest proportion of energy fruits in the treatment of 20% figs was 290.81 Kcal. The highest carbohydrate content in brownies without treatment was 23.16% and the treatment of 20% figs was 21.18%. Protein content without treatment was 7.43% and highest in the treatment of 20% figs was 7.16%. The highest fat content in brownies without treatment was 20.21% and the highest in the treatment of 20% figs was 19.72%. The best water content in brownis without treatment was 26.66% and in the treatment of 20% figs was 35.21%. The best ash content in the 60% brownies treatment was 1.26% and in the 40% treatment was 1.43%. The best crude fiber content is in the formulation treatment of 60% figs by 2.42% and the treatment of figs by 40% with a fiber content of 2.18%. The highest IC50 in the treatment of 60% figs was 117.15 ppm. The best treatment of steamed brownies in figs formulations has the lowest calory value, fiber content and the highest antioxidant activity among all treatments.

Keywords: Browniss, Figs Fruit, Organoleptic, Nutrient, Antioxidant