

The Effect of Variation in Red Bean and Purple Sweet Potato Flour Mixtures in Bakes Brownies on the Physical Properties, Organoleptic Properties, Proximate Content and Dietary Fiber Content

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ABSTRACT

Background: As science develops and lifestyle changes, healthy food consumption is the main focus of the community, one of which is looking for alternative snacks with better nutritional value. Brownies are one of the popular snacks, but brownies available on the market are generally high in fat and carbohydrates and low in fiber. Therefore, it is necessary to develop snacks with better nutritional value and fiber through the use of local food. Red beans and purple sweet potatoes are a source of fiber, protein, and carbohydrates that are also low in fat so they have the potential to be used in making brownies to produce healthier snacks.

Objective: To determine the effect of variations of red bean and purple sweet potato flour variations on physical properties, organoleptic properties, proximate levels and dietary fiber content of baked brownies.

Method: A type of pseudo-experimental research with a simple random design research design with 4 treatments. Control treatment 100% wheat flour, variation of red bean mixture and purple sweet potato flour 37.5%:7.5%:55%, 37.5%:12.5%:50%, 37.5%:17.5%:45%. Physical properties are analyzed descriptively. The organoleptic properties were analyzed by *Kruskall Wallis statistical* assays. The proximate level test including water content, ash content, protein, fat, carbohydrates and energy as well as dietary fiber content was analyzed descriptively.

Research Results: Physical properties show that the more red bean mixture and the less purple sweet potato flour, the color is more intense, the aroma of red beans is stronger, the sweetness and texture is denser. Organoleptic properties showed that the panelists' overall preferred baked brownies were F2 treatments (37.5%:12.5%:50%). The results of the proximal level test showed that brownies containing a mixture of kidney beans and purple sweet potato flour had higher levels of ash, protein, fat and energy than the control treatment. The yield of dietary fiber increased after being given a mixture of kidney beans and purple sweet potato flour.

Conclusion: There was an effect of variations of red bean mixture and purple sweet potato flour on physical properties, proximate levels and dietary fiber content and no effect on organoleptic tests in the manufacture of baked brownies

Keywords: Brownies, kidney beans, purple sweet potato flour, physical properties, organoleptic properties, proxy levels, dietary fiber levels.

Pengaruh Variasi Campuran Kacang Merah dan Tepung Ubi Ungu Pada Brownies Panggang Terhadap Sifat Fisik, Sifat Organoleptik, Kadar Proksimat dan Kadar Serat Pangan

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ABSTRAK

Latar Belakang : Seiring berkembangnya ilmu pengetahuan dan perubahan gaya hidup, konsumsi makanan sehat menjadi fokus utama masyarakat, salah satunya mencari alternatif camilan dengan nilai gizi lebih baik. Brownies merupakan salah satu camilan populer, namun brownies yang tersedia di pasaran umumnya mengandung lemak dan karbohidrat tinggi serta serat rendah. Oleh karena itu, diperlukan pengembangan camilan dengan nilai gizi dan serat yang lebih baik melalui pemanfaatan pangan lokal. Kacang merah dan ubi ungu merupakan sumber serat, protein, karbohidrat yang juga rendah lemak sehingga berpotensi digunakan dalam pembuatan brownies untuk menghasilkan camilan yang lebih sehat.

Tujuan : Mengetahui pengaruh variasi campuran kacang merah dan tepung ubi ungu terhadap sifat fisik, sifat organoleptik, kadar proksimat dan kadar serat pangan brownies panggang.

Metode : Jenis penelitian eksperimental semu dengan desain penelitian rancangan acak sederhana dengan 4 perlakuan. Perlakuan kontrol 100% tepung terigu, variasi campuran kacang merah dan tepung ubi ungu 37,5%:7,5%:55%, 37,5%:12,5%:50%, 37,5%:17,5%:45%. Sifat fisik dianalisis secara deskriptif. Sifat organoleptik dianalisis dengan uji statistik *Kruskall Wallis*. Uji kadar proksimat meliputi kadar air, kadar abu, protein, lemak, karbohidrat dan energi serta kadar serat pangan dianalisis secara deskriptif.

Hasil Penelitian : Sifat fisik menunjukkan bahwa semakin banyak campuran kacang merah dan semakin berkurang tepung ubi ungu, warna semakin pekat, aroma kacang merah semakin kuat, rasa manis, tekstur semakin padat. Sifat organoleptik menunjukkan bahwa brownies panggang yang paling disukai panelis secara keseluruhan yaitu perlakuan F2 (37,5%:12,5%:50%). Hasil uji kadar proksimat menunjukkan brownies yang terdapat campuran kacang merah dan tepung ubi ungu memiliki kadar abu, protein, lemak dan energi lebih tinggi dari perlakuan kontrol. Hasil kadar serat pangan meningkat setelah diberi campuran kacang merah dan tepung ubi ungu.

Kesimpulan : Ada pengaruh variasi campuran kacang merah dan tepung ubi ungu terhadap sifat fisik, kadar proksimat dan kadar serat pangan serta tidak ada pengaruh terhadap uji organoleptik pada pembuatan brownies panggang

Kata Kunci : Brownies, kacang merah, kadar proksimat, kadar serat pangan, sifat fisik, sifat organoleptik, tepung ubi ungu.