

ABSTRACT

THE INFLUENCE OF CALINA PAPAYA SEED POWDER (*Carica Papaya* L.) AND PEPPERMINT LEAF POWDER (*Mentha Piperita* L.) FORMULATION ON THE CHEMICAL CHARACTERISTICS AND SENSORY PROPERTIES OF HERBAL TEA

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Herbal tea formulated from a mixture of papaya seed powder and mint leaf powder holds potential as a functional beverage with high antioxidant content and refreshing properties. This study aimed to evaluate the effect of different formulation ratios of Calina papaya seed powder (*Carica papaya* L.) and mint leaf powder (*Mentha piperita* L.) on the chemical and sensory characteristics of the resulting herbal tea, and to determine the optimal formulation based on these parameters. The research employed a Completely Randomized Block Design (RAKL) with six treatments and three replications, consisting of the following ratios of papaya seed powder to mint leaf powder: 100%:0% (P1), 80%:20% (P2), 60%:40% (P3), 40%:60% (P4), 20%:80% (P5), and 0%:100% (P6). Observed parameters included moisture content, ash content, antioxidant activity, and sensory attributes (color, taste, aroma, and overall acceptability). The best-performing formulation was further analyzed for total polyphenol content and crude fiber content. Data were subjected to Bartlett's test for homogeneity and Tukey's test for additivity, followed by analysis of variance (ANOVA) and post-hoc testing using the 5% Honestly Significant Difference (BNJ) method. The optimal formulation was found in treatment P4 (40% papaya seed powder : 60% mint leaf powder), which exhibited a moisture content of 5.13%, ash content of 6.56%, antioxidant activity (inhibition percentage) of 74.49%, color score of 4.80 (neutral to slightly liked), taste score of 4.06 (neutral), aroma score of 4.22 (neutral), and overall acceptability score of 4.42 (neutral).

Key words: papaya seed, mint leaf, herbal tea

ABSTRAK

PENGARUH FORMULASI BUBUK BIJI PEPAYA CALINA (*Carica papaya* L.) DAN BUBUK DAUN MINT (*Mentha piperita* L.) TERHADAP SIFAT KIMIA DAN SENSORI TEH HERBAL

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Teh herbal campuran bubuk biji pepaya dan bubuk daun mint merupakan potensi minuman kesehatan yang kaya antioksidan dan menyegarkan. Penelitian ini bertujuan mengetahui pengaruh formulasi campuran bubuk biji pepaya Calina (*Carica papaya* L.) dan bubuk daun mint (*Mentha piperita* L.) terhadap sifat kimia dan sensori teh herbal yang dihasilkan dan mendapatkan formulasi bubuk biji pepaya Calina (*Carica papaya* L.) dan bubuk daun mint (*Mentha piperita* L.) terbaik berdasarkan sifat kimia dan sensori teh herbal. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) 6 perlakuan dan 3 kali ulangan dengan 6 taraf perbandingan bubuk biji pepaya : bubuk daun mint 100%:0% (P1), 80%:20% (P2), 60%:40% (P3), 40%:20% (P4), 20%:80% (P5), dan 0%:100% (P6). Parameter yang diamati yaitu kadar air, kadar abu, aktivitas antioksidan, dan sensori (warna, rasa, aroma, dan penerimaan keseluruhan). Teh herbal perlakuan terbaik diuji kadar polifenol dan kadar serat kasar. Data yang diperoleh dianalisis kehomogenannya dengan Uji Barlett, kemenambahan data dengan uji Tuckey, kemudian dianalisis sidik ragam (ANARA), dan uji lanjut BNJ 5%. Teh herbal campuran bubuk biji pepaya dan bubuk daun mint terbaik yaitu perlakuan P4 (bubuk biji pepaya 40% : bubuk daun mint 60%) yang menghasilkan kadar air sebesar 5,13%, kadar abu sebesar 6,56%, aktivitas antioksidan (% inhibisi) sebesar 74,49%, skor warna 4,80 (netral mendekati suka), skor rasa 4,06 (netral), skor aroma 4,22 (netral), dan skor penerimaan keseluruhan 4,42 (netral).

Kata kunci: biji pepaya, daun mint, teh herbal