

## RINGKASAN

Pengembangan produk pada biji carica merupakan usaha diversifikasi produk untuk mengurangi limbah yang dihasilkan dari pengolahan buah carica serta untuk menambah nilai ekonomis buah carica. Salah satu usaha dalam diversifikasi produk yaitu pengolahan biji carica menjadi serbuk minuman. Pada penelitian ini, dilakukan modifikasi terhadap serbuk biji carica dengan penambahan kopi dan rempah yang diharapkan dapat meningkatkan hasil sensori produk. Penelitian ini bertujuan untuk: 1) Mengkaji profil mutu atribut sensori produk, 2) Menetapkan produk dengan tingkat kesukaan tertinggi, 3) Mengkaji karakteristik kimia dan fungsional produk.

Penelitian ini menggunakan metode Rancangan Acak Lengkap (RAL) dengan 1 faktor yaitu formula serbuk minuman yang terdiri dari 5 taraf perlakuan yaitu serbuk biji carica 100%, serbuk biji carica 94% : rempah 6%, serbuk biji carica 64% : rempah 6% : kopi arabika 30%, serbuk biji carica 69% : rempah 6% : kopi robusta 25%, dan serbuk biji carica 64% : rempah 6% : kopi arabika 10% : kopi robusta 20%. Analisis sensori dilakukan menggunakan 2 metode yaitu uji skoring dan uji hedonik. Penilaian sensori dilakukan oleh 25 orang panelis semi terlatih. Parameter uji skoring meliputi warna cokelat, homogenitas, kekeruhan, *roasted* aroma, dan rasa pahit serta parameter uji hedonik meliputi aroma, rasa, dan *overall acceptability* (kesukaan secara keseluruhan). Analisis kimia meliputi kadar air, kadar abu, antioksidan, dan total fenol. Data yang diperoleh akan dianalisis menggunakan analisis ragam (ANOVA) menggunakan microsoft excel dan aplikasi SPSS Statistic 25. Apabila berbeda nyata dilanjutkan dengan uji Beda Nyata Jujur (BNJ) pada taraf 5%.

Hasil penelitian menunjukkan bahwa: Serbuk biji carica dengan penambahan rempah, kopi arabika, dan kopi robusta memperoleh nilai tertinggi terhadap intensitas warna cokelat (4,33), kekeruhan (2,93), *roasted* aroma (3,73), dan rasa pahit (3,49). Tingkat penerimaan kesukaan pada serbuk minuman biji carica mengalami peningkatan dengan adanya penambahan variasi kopi terutama pada kopi robusta. Kombinasi perlakuan terbaik berdasarkan variabel sensori diperoleh dari perlakuan B4 dan B5. Perlakuan B4 yaitu serbuk biji carica dengan penambahan rempah dan kopi arabika (64%:6%:30%) memperoleh penilaian tertinggi skor sensori aroma 3,55, serta perlakuan B5 yaitu serbuk biji carica dengan penambahan rempah, kopi arabika, serta kopi robusta (64%:6%:10%:20%) memperoleh penilaian tertinggi skor sensori terhadap rasa (3,63), dan *overall acceptability* (3,56). Hasil analisis kimia menunjukkan bahwa penambahan kopi pada serbuk minuman biji carica mengalami peningkatan terhadap kadar abu, antioksidan, dan total fenol sebesar 1,67 - 23,51%; 3,12 - 6,85%; dan 227,63 - 452,09%. Kombinasi perlakuan terbaik berdasarkan variabel kimia diperoleh dari perlakuan B5 yaitu serbuk biji carica dengan penambahan rempah, kopi arabika, dan kopi robusta (64%:6%:10%:20%). Pada produk tersebut menghasilkan serbuk minuman biji carica dengan kadar air 5,03%, kadar abu 5,09%, antioksidan 93,21%, dan total fenol 2,99 mg GAE/gram

## SUMMARY

*Product development on carica seeds is a product diversification effort to reduce waste generated from carica fruit management and to increase the economic value of carica fruit. One of the efforts in product diversification is processing carica seeds into beverage powder. In this study, modifications were made to carica seed powder with the addition of coffee and spices which are expected to improve the sensory results of the product. This study aims to: 1) examine the quality profile of the sensory attributes of the product, 2) determine the product with the highest level of preference, 3) examine the chemical and functional characteristics of the product.*

*This study uses the Complete Random Design (RAL) method with 1 factor, namely the beverage powder formula consisting of 5 levels of treatment, namely 100% carica seed powder, 94% carica seed powder : 6% spice, 64% carica seed powder: 6% spice : 30% arabica coffee, 69% carica seed powder: 6% spice : 25% robusta coffee, and 64% carica seed powder : 6% spice : 10% arabica coffee : 20% robusta coffee. Sensory analysis uses 2 methods, namely the scoring test and the hedonic test. The sensory assessment was carried out by 25 semi-trained panelists. The scoring test parameters included brown color, homogeneity, turbidity, roasted aroma, and bitter taste and hedonic test parameters included aroma, taste, and overall acceptability. Chemical analysis includes moisture content, ash content, antioxidants, and total phenols. The data obtained will be analyzed statistically by analysis of variance (ANOVA) using Microsoft Excel and the SPSS Statistic 25 application. If there is a real difference ( $p < 0.05$ ), it will be re-analyzed using the Honest Real Difference (BNJ) at the level of 5%.*

*The results showed that: Carica seed powder with the addition of spices, arabica coffee, and robusta coffee obtained the highest scores on brown intensity (8.33), turbidity (2.93), roasted aroma (7.17), and bitter taste (6.79) due to the addition of higher robusta coffee. The rate of acceptance of preference for carica bean drink powder has increased with the addition of coffee variations, especially in robusta coffee. The best combination of treatments based on sensory variables was obtained from B4 and B5 treatments. B4 treatment, namely carica seed powder with the addition of spices and Arabica coffee (64%:6%:30%), obtained the highest score of aroma sensory score of 3.55, and B5 treatment, namely carica seed powder with the addition of spices, Arabica coffee, and robusta coffee (64%:6%:10%:20%) obtained the highest assessment of sensory score on taste (3.63), and overall acceptability (3.56). The best combination of treatments based on chemical variables was obtained from the B5 treatment, namely carica seed powder with the addition of spices, arabica coffee, and robusta coffee (64%:6%:10%:20%). The product produces carica seed drink powder with a moisture content of 5.03%, ash content of 5.09%, antioxidants of 93.21%, and a total of phenol of 2.99 mg GAE/gram.*