

Intisari

Pengaruh Penambahan Bubuk Kopi Arabika sebagai *Masking Agent* dalam Minuman Kakao yang Difortifikasi *Arthrospira platensis*

A. platensis memiliki kandungan gizi berupa protein, karbohidrat, lemak, mineral, serat serta air dan telah digunakan pada fortifikasi produk. Penambahan *A. platensis* pada minuman kakao dapat meningkatkan sifat fungsional yaitu mengandung antioksidan, namun juga dapat memberikan aroma amis sehingga perlu penambahan bubuk kopi sebagai *masking agent*. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan bubuk kopi arabika sebagai *masking agent* terhadap karakteristik sensoris minuman kakao *A. platensis*. Rancangan yang digunakan adalah Rancangan Acak Lengkap (RAL) satu faktor dengan 5 level penambahan bubuk kopi 0%, 2%, 4%, 6% dan 8% (b/b bubuk kakao). Analisis data menggunakan uji One Way Anova 95% dan uji Duncan's Multiple Range. Hasil uji hedonik penambahan bubuk kopi berpengaruh nyata terhadap aroma, rasa, dan keseluruhan produk dan dapat menurunkan intensitas aroma, rasa dan *aftertaste* *A. platensis* ($p < 0,05$). Konsentrasi penambahan bubuk kopi yang disukai yaitu 2% dengan tingkat penerimaan antara 3,4-4 (agak suka-suka). *Temporal Dominance of Sensation* (TDS) pada penambahan kopi 2% mampu menutupi rasa pahit *A. platensis* pada akhir pengecap. Hasil sifat fisik menunjukkan penambahan bubuk kopi tidak berbeda terhadap kadar air, *wettability*, dan *water activity* ($p > 0,05$). Nilai viskositas suhu ruang dan dingin meningkat seiring penambahan bubuk kopi ($p < 0,05$). Uji nilai antioksidan dengan penambahan bubuk kopi semakin meningkat (36,46%-47,66%) RSA DPPH, sedangkan FRAP semakin menurun (67,43-60,93 $\mu\text{M/g}$). Analisis kandungan gizi penambahan kopi 2% berpengaruh pada kadar abu, lemak, dan gula total. Penambahan bubuk kopi sebagai *masking agent* yang terbaik pada konsentrasi 2% (b/b bubuk kakao).

Kata Kunci : antioksidan, *A. platensis*, bubuk kopi, *masking agent*, minuman kakao

Abstract

The Effect of Arabica Coffee Powder Addition as a Masking Agent in Fortified *Arthrospira platensis* Cocoa Drink

A. platensis contains of protein, carbohydrates, fats, minerals, dietary fiber and has been used for product fortification. The addition of *A. platensis* to cocoa drinks can improve their functional properties which contain antioxidants, however gives a fishy aroma, so it is necessary to add coffee as a masking agent. This study aimed to determine the effect of adding arabica coffee grounds as an aromatic masking agent on the sensory characteristics of *A. platensis* cocoa drink. The design used was a one-factor Completely Randomized Design (CRD) with 5 levels of adding coffee powder: 0%, 2%, 4%, 6%, and 8% (w/w cocoa powder). Data analysis used the One-Way Anova 95% test and Duncan's Multiple Range (parametric) test. The results of the hedonic test showed that the addition of coffee powder had a significant effect on aroma, taste, and overall product and could reduce the intensity of aroma, taste, and aftertaste of *A. platensis* ($p < 0.05$). The addition of coffee powder is the most preferred at a concentration of 2%, with an acceptance rate of 3.4–4 (like-rather like). The Temporal Dominance of Sensation (TDS) test with the addition of 2% coffee, was able to cover the bitter taste of *A. platensis* at the end of the tasting. The results of physical properties showed that the addition of coffee grounds had no significant difference in moisture content, wettability, and water activity ($p > 0.05$). The value of viscosity at room temperature and cold increased with the addition of coffee grounds ($p < 0.05$). The antioxidant value with the addition of coffee grounds increased (36,46%-47,66%) RSA DPPH, while with FRAP it decreased (67,43-60,94 μ M/g). The nutrient content with the addition of 2% coffee has an effect on the ash, fat content and total sugar. The addition of coffee powder is best at a concentration of 2% (w/w cocoa powder).

Keywords: antioxidant, *A. platensis*, cocoa drink, coffee powder, masking agent