

Intisari

MONK FRUIT SWEETENER SEBAGAI MASKING AGENT MINUMAN JELI YANG DIFORTIFIKASI MIKROEMULSI ASAM LEMAK *Ulva lactuca*

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan *monk fruit sweetener* sebagai *masking agent* minuman jeli yang difortifikasi mikroemulsi asam lemak *U. lactuca*. Rancangan yang digunakan adalah Rancangan Acak Lengkap (RAL) satu faktor berupa variasi konsentrasi *monk fruit sweetener* 0,10%, 0,15%, 0,20%, dan 0,25%, serta konsentrasi gula stevia 1,2% sebagai kontrol. Pengujian untuk minuman jeli antara lain aktivitas antioksidan, uji kandungan asam lemak, uji skoring, uji *time intensity*, dan uji *Quantitative Descriptive Analysis* (QDA). Penambahan *monk fruit sweetener* memberikan pengaruh nyata ($P < 0,05$) terhadap rasa, aroma, dan antioksidan. Perlakuan terbaik adalah penambahan *monk fruit sweetener* 0,25% dengan hasil skoring rasa dan aroma lebih baik dibanding gula stevia 1,2%. Selain itu, pada uji *time intensity* memiliki selisih nilai AUC (*area under the curve*) rasa manis *monk fruit sweetener* dan rasa pahit mikroemulsi tertinggi yaitu 117,76, serta pada uji QDA menunjukkan rasa pahit dan aroma mikroemulsi telah tertutupi. Ini menunjukkan bahwa *monk fruit sweetener* mampu menutupi rasa dan aroma pahit mikroemulsi.

Kata kunci: *monk fruit sweetener*, mikroemulsi, minuman jeli, stevia, *area under the curve*, *U. lactuca*

Abstrak

MONK FRUIT SWEETENER AS MASKING AGENT OF JELLY DRINK FORTIFIED WITH *Ulva lactuca* FATTY ACID MICROEMULSION

This study aims to determine the effect of adding monk fruit sweetener as a masking agent for jelly drinks fortified with *U. lactuca* fatty acid microemulsion. The design used was a one-factor Completely Randomized Design (CRD) in the form of variations in monk fruit sweetener concentrations of 0.10%, 0.15%, 0.20%, and 0.25%, and a stevia sugar concentration of 1.2% as a control. Tests for jelly drinks include antioxidant activity, fatty acid content test, scoring test, time intensity test, and Quantitative Descriptive Analysis (QDA) test. The addition of monk fruit sweetener had a significant effect ($P < 0.05$) on flavor, aroma, and antioxidants. The best treatment was the addition of 0.25% monk fruit sweetener with better taste and aroma scoring results than 1.2% stevia sugar. In addition, the time intensity test had the highest difference in AUC (area under the curve) value between the sweetness of monk fruit sweetener and the bitterness of microemulsion, which was 117.76, and the QDA test showed that the bitter taste and aroma of microemulsion had been covered. This indicates that monk fruit sweetener is able to mask the bitter taste and aroma of the microemulsion.

Keywords: monk fruit sweetener, microemulsion, jelly drink, stevia, area under the curve, *U. lactuca*