

INTISARI

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh penambahan sari buah mangga kweni dan konsentrasi *carboxymethyl cellulose* (CMC) sebagai penstabil terhadap karakteristik minuman fermentasi berbasis whey.

Metode penelitian yang dilakukan terdiri dari dua tahap, yaitu penelitian pendahuluan dan penelitian utama. Penelitian pendahuluan yang dilakukan yaitu menentukan konsentrasi sari buah mangga kweni yang akan ditambahkan pada minuman fermentasi berbasis whey. Penelitian utama yang dilakukan yaitu membuat minuman fermentasi berbasis whey yang ditambahkan dengan sari buah mangga dan penambahan konsentrasi *carboxymethyl cellulose* (CMC). Rancangan percobaan yang digunakan yaitu Rancangan Acak Kelompok (RAK) dengan pola faktorial 3 x 3 dan jumlah ulangan sebanyak tiga kali. Adapun faktor yang digunakan terdiri dari dua faktor, faktor pertama yaitu penambahan sari buah mangga kweni (a_1 (5%), a_2 (10%), dan a_3 (15%)) dan faktor kedua yaitu penambahan konsentrasi CMC (b_1 (0,3%), b_2 (0,5%), dan b_3 (0,7%)). Respon pada penelitian ini meliputi respon kimia (analisis kadar asam laktat, pH, kadar protein dan total padatan terlarut), respon fisik (viskositas dan warna), respon mikrobiologi (total bakteri asam laktat), dan organoleptik (warna, aroma, rasa, kekentalan dan keseluruhan (*overall*)).

Hasil penelitian menunjukkan bahwa penambahan sari buah mangga kweni (A) berpengaruh nyata terhadap warna, atribut warna, atribut aroma, atribut rasa, atribut kekentalan dan atribut keseluruhan (*overall*) minuman fermentasi berbasis whey. Penambahan konsentrasi *carboxymethyl cellulose* (CMC) (B) berpengaruh nyata terhadap kadar total padatan terlarut, viskositas, warna, atribut warna, atribut aroma, atribut rasa, atribut kekentalan dan atribut keseluruhan (*overall*) minuman fermentasi berbasis whey. Sedangkan interaksi antara penambahan sari buah mangga kweni (A) dan *carboxymethyl cellulose* (CMC) (B) berpengaruh nyata terhadap warna, atribut warna, atribut aroma, atribut rasa, atribut kekentalan dan atribut keseluruhan (*overall*) minuman fermentasi berbasis whey.

Kata kunci: *carboxymethyl cellulose* (CMC), minuman fermentasi, sari buah mangga kweni, dan whey.

ABSTRACT

The purpose of this research is to know the effect of the addition of “kweni” mango juice and concentration of carboxymethyl cellulose (CMC) as a stabilizer to the characteristics of whey-based fermented beverages.

The research method consists of two stages, namely preliminary research, and main research. A preliminary research was conducted to determine the concentration of the “kweni” mango juice to be added to the whey-based fermented beverage. The main research was to make whey-based fermented beverages added with mango juice and the addition of carboxymethyl cellulose (CMC) concentration. The experimental design used was Randomized Block Design (RAK) with 3 x 3 factorial pattern and the number of replicates three times. The factors used consisted of two factors, the first factor was the addition of the “kweni” mango juice (a_1 (5%), a_2 (10%), and a_3 (15%)) and the second factor was the addition of CMC concentration (b_1 (0,3%), b_2 (0,5%), and b_3 (0,7%)). The response in this research includes the chemical response (analysis of lactic acid levels, pH, protein content and total dissolved solids), physical response (viscosity and color), microbiological response (total lactic acid bacteria), and organoleptic (color, aroma, taste, viscosity and overall).

The results showed that the addition of the “kweni” mango juice (A) significantly affect the color, color attribute, aroma attribute, taste attribute, viscosity attribute and overall attribute of whey-based fermented beverage. The addition of carboxymethyl cellulose (CMC) (B) concentration significantly affected total soluble solid, viscosity, color, color attribute, aroma attribute, aroma attribute, taste attribute, viscosity attribute and overall attribute of whey-based fermented beverage. While the interaction between the addition of the “kweni” mango juice (A) and carboxymethyl cellulose (CMC) (B) have an effect on the the color, color attribute, aroma attribute, taste attribute, viscosity attribute and overall attribute of the whey-based fermented beverage.

Keywords: carboxymethyl cellulose (CMC), fermented drinks, kweni mango juice, and whey.