

ABSTRAK

Penelitian dilakukan dalam dua tahap, yaitu penelitian pendahuluan dan penelitian utama. Penelitian pendahuluan bertujuan untuk menganalisis aktivitas antioksidan pada brokoli mentah dan menentukan perbandingan brokoli dan air yang paling tepat yang akan digunakan pada penelitian utama. Penelitian utama bertujuan untuk menentukan perbandingan bubur brokoli dengan bubur mentimun dan jenis bahan penstabil yang terbaik. Rancangan penelitian yang digunakan dalam penelitian ini adalah rancangan acak kelompok (RAK) yang terdiri dari 2 variabel dengan pola faktorial 3 x 3 dengan 3 kali pengulangan. Variabel perbandingan bubur brokoli dengan bubur mentimun dan jenis bahan penstabil yaitu : variabel a perbandingan bubur brokoli dengan bubur mentimun, a₁ (1:1), a₂ (1:2), a₃ (2:1) dan variabel b jenis bahan penstabil, b₁ (CMC 0,75%), b₂ (gelatin 0,6%), b₃ (Gum arab 0,3%).

Berdasarkan hasil penelitian Perbandingan bubur brokoli dengan bubur mentimun berpengaruh terhadap vitamin C, kadar serat kasar, % overrun, waktu leleh sorbet, total padatan terlarut serta aroma sorbet sayur, namun tidak berpengaruh terhadap kadar gula total, tekstur, warna, tekstur dan rasa sorbet sayur. Jenis bahan penstabil berpengaruh terhadap % overrun, waktu leleh sorbet, warna, tekstur dan aroma sorbet sayur, namun tidak berpengaruh terhadap vitamin C, kadar gula total, kadar serat kasar, total padatan terlarut, warna dan rasa sorbet sayur.

Interaksi antara perbandingan bubur brokoli dengan bubur mentimun dan jenis bahan penstabil berpengaruh terhadap kadar serat kasar, % overrun, serta tekstur sorbet sayur, namun tidak berpengaruh terhadap vitamin C, kadar gula total, waktu leleh, warna, aroma dan rasa sorbet sayur. Sampel terpilih dari hasil penelitian adalah a₃b₁ dengan perbandingan bubur brokoli dengan bubur mentimun 2:1 dan CMC 0,75%. Produk sorbet sayur terpilih memiliki kadar vitamin C sebesar 104,097 mg/ 100g, kadar serat kasar sebesar 3,67%, dan kadar gula total sebesar 19,38%, aktivitas antioksidan 14178,40 ppm, % overrun sebesar 60,69%, waktu leleh sorbet sayur selama 55 menit 48 detik, dan total padatan terlarut 14,34%. Aktivitas antioksidan produk terpilih sorbet sayur digolongkan sebagai antioksidan lemah.

Kata Kunci : sorbet sayur, perbandingan bubur brokoli dengan bubur mentimun, jenis penstabil, CMC, Vitamin C, kadar serat kasar, kadar gula total, aktivitas antioksidan, % overrun, waktu leleh, dan total padatan terlarut

ABSTRACT

The research in two phase, which are the preliminary research and primary research. The purpose of preliminary research is to analyze antioksidan activity in fresh broccoli and decide the best ratio of broccoli and water that will be used in the primary research. In addition, the primary research is to decide the best concentration of comparison broccoli puree with cucumber puree and type of stabilizer. The program used in this research is the completely randomized block design which consisted of 2 factors with 3 x 3 factorial patterns and 3 times repetition. The variable of comparison broccoli puree with cucumber puree and type of stabilizer are: variable a comparison broccoli puree with cucumber puree, a_1 (1:1), a_2 (1:2), a_3 (2:1) and variable b type of stabilizer, b_1 (CMC 0,75%), b_2 (gelatin 0,6%), b_3 (gum arab 0,3%).

Based on the result of this research the comparison broccoli puree with cucumber puree affects the vitamin c, levels of fiber rude, % overrun, melting time, total dissolved solid and the aroma of vegetable sorbet, however it does not have any effect on total sugar, texture, colour, and taste of vegetable sorbet. type of stabilizer affects the % overrun, melting time, colour, texture and aroma of vegetable sorbet but does not affects vitamin c, total sugar, levels of fiber rude, total dissolved solid, colour, and taste of vegetable sorbet.

The interaction between comparison broccoli puree with cucumber puree and type of stabilizer affect the levels of fiber rude,% overrun, and texture of vegetable sorbet, but does not affects on vitamin C, total sugar, melting time, colour, aroma and taste of vegetable sorbet. The sample that is chosen from this research is sample a_3b_1 with the addition of 2:1 comparison broccoli puree with cucumber puree and CMC 0,75%. The chosen vegetable sorbet contains 104,097 mg vitamin c per 100gr ingredient, 3,67% levels of fiber rude, 19,38% total sugar, 14178,40 ppm antioxidant activity, 60,69% overrun, melting time 55 minutes 48 second and 14,37% total dissolved solid. Antioxidant activity of selected sampels vegetable sorbet classified as a antioxidant weak.

Keyword : Vegetable sorbet, comparison broccoli puree with cucumber puree, type of stabilizer, CMC, Vitamin C, levels of fiber rude, total sugar, antioxidant activity, % overrun, melting time and total dissolved solid