ABSTRAK

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PENGARUH PENAMBAHAN UBI UNGU (*Ipomoea batatas* L.) TERHADAP KARAKTERISTIK ES KRIM SUSU KEDELAI (*Glycine max* L.)
Skripsi, Fakultas Sains dan Teknologi (2021).

(XIV + 79 halaman, 14 gambar, 6 tabel, 20 lampiran)

Es krim adalah produk pangan yang banyak digemari oleh masyarakat, namun es krim tidak memiliki nilai tambah antioksidan dalam bentuk fenolik dan flavonoid. Hal ini menunjukkan bahwa es krim dapat dikembangkan untuk menambahkan nilai fenolik dan flavonoid ke dalam es krim. Es krim susu kedelai dengan penambahan ubi ungu dibuat dengan menggunakan rasio susu kedelai: susu skim 25:75, 50:50, 75:25 dan konsentrasi ubi ungu sebesar 10%; 12,5%; 15%. Es krim susu kedelai: susu skim kontrol dibuat hanya menggunakan susu kedelai dan tanpa ditambahkan ubi ungu kukus. Semua sampel tersebut dianalisis secara fisikokimia yang mencakup total fenolik, total flavonoid, *overrun,* waktu leleh, uji warna, dan viskositas. Selain itu, juga dilakuakan pengujian organoleptic yang meliputi uji skoring dan uji hedonik. Es krim dengan formulasi terbaik selanjutnya diuji total protein, total lemak, total padatan, dan uji antioksidan. Es krim dengan formulasi terbaik memiliki kandungan total fenolik sebesar 2,9452 ± 0,1256 mg QE/mg, total flavonoid sebesar 0,0809 ± 0,0040 mg QE/mg, total antioksidan sebesar 19004,1043 ± 1763,5116 ppm, *overrun* sebesar 12,1842 ± 1,5783%, viskositas sebesar 759,5000 ± 25,9422 cP, otal protein sebesar 3,635%, total lemak sebesar 0,335%, kadar abu sebesar 0,8152 ± 0,0160%, dan kadar karbohidrat sebesar 27,2848%. Es krim perlakuan terbaik memiliki kandungan fenolik yang lebih tinggi dibandingkan dengan es krim kontrol, namun kandungan flavonoid dari es krim perlakuan terbaik lebih rendah dibandingkan dengan es krim kontrol.

Kata kunci : Antioksidan, es krim, susu kedelai, total fenolik, total flavonoid, ubi ungu

Referensi : 94 (1994-2020)

ABSTRACT

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THE EFFECT OF ADDITION OF PURPLE SWEET POTATO *(Ipomoea batatas* L.*)* CHARACTERISTICS OF SOY MILK ICE CREAM *(Glycine max* L.*)*

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(XIV + 79 pages; 14 figures; 6 tables; 20 appendices)

Ice cream is one of the most favorite food products in society. However, the ingredients of ice cream do not contain antioxidants such as phenolic and flavonoids. This given idea to include phenolic and flavonoid into the ice cream. Soy-milk ice cream is added with purple sweet potato with the ratios of soy milk and skims milk are 25:75, 50:50, 75:25 and the concentration of purple sweet potato of 10%; 12,5%; 15%. As a control the ratio of soy-milk ice cream and skim milk is made with only soy milk without the addition of steamed purple sweet potato. All of the samples are being analyzed with physicochemistry technique that includes the total number of phenolic, flavonoid, overrun, melting time, color test, and viscosity. Furthermore, organoleptic testing that includes scoring and the hedonic test was also carried out. After that, the best ice cream formulation is analyzed with the total number of protein, fat, solids, and antioxidants. The best ice cream formulation contain with total number of phenolic of 2,9452 ± 0,1256 mg QE/mg, total flavonoid of 0,0809 ± 0,0040 mg QE/mg, total antioxidant of 19004,1043 ± 1763,5116 ppm, overrun of 12,1842 ± 1,5783 %, viscosity of 759,5000 ± 25,9422 cP, total protein of 3,635% , total fat of 0,335%, ash content of 0,8152 ± 0,0160%, and carbohydrate content of 27,2848%.The best ice cream formulation has higher of total phenolic content compared to control ice cream, but the best ice cream formulation has lower of total flavonoid content compared to control ice cream.

Keywords : Antioxidant, ice cream, purple sweet potato, soy milk, total phenolic, total flavonoid

References : 94 (1994-2020)