

ABSTRAK

KEYSA NAJWA AULIA, 2025, FORMULASI SEDIAAN PERONA PIPI (*BLUSH ON*) CREAM DENGAN ZAT PEWARNA ALAMI DARI EKSTRAK UBI JALAR UNGU (*Ipomoea batatas* L.) SEBAGAI ANTIOKSIDAN SERTA PENETAPAN KADAR ANTOSIANIN, SKRIPSI, FAKULTAS FARMASI, UVINERSITAS SETIA BUDI, SURAKARTA

Ubi jalar ungu mengandung senyawa antosianin yang berpotensi sebagai pewarna alami dan agen antioksidan. *Blush on cream* adalah sediaan kosmetik yang memberikan warna pada pipi. Penelitian ini bertujuan untuk menghasilkan pewarna alami dari ekstrak ubi jalar ungu, mengetahui tingkat kesukaan panelis terhadap variasi konsentrasi sediaan *blush on cream*, mengetahui nilai IC_{50} , dan mengetahui kadar antosianin total ekstrak ubi jalar ungu

Ekstrak ubi jalar ungu dibuat menggunakan pelarut etanol 96% : asam asetat : air (25: 1 : 5) kemudian diformulasikan menjadi sediaan *blush on cream* dengan variasi konsentrasi 5%, 10%, dan 15%. Sediaan dilakukan evaluasi mutu fisik, uji iritasi, uji stabilitas, dan uji kesukaan. Data mutu fisik dianalisa menggunakan *One Way Anova* dengan uji lanjut *Post-Hoc*, uji stabilitas dianalisis menggunakan *Paired T-Test* dan uji kesukaan dianalisis secara *univariat*. Uji antioksidan dianalisis menggunakan regresi linier dan uji *Welch ANOVA*

Hasil penelitian menunjukkan bahwa seluruh formula memenuhi persyaratan mutu fisik dan tidak menimbulkan iritasi, serta seluruh formula tidak stabil pada uji *cycling test*. Uji kesukaan menunjukkan warna paling disukai pada FII dan FIII, aroma pada FII, serta tekstur pada FII dan FIII. Nilai IC_{50} terbesar pada FIII yang menunjukkan aktivitas antioksidan tertinggi. Kadar antosianin didapatkan sebesar 66,165mg/100 gram

Kata kunci: Ubi jalar ungu, *Blush on cream*, Antosianin, Antioksidan, IC_{50}

ABSTRACT

KEYSA NAJWA AULIA, 2025. FORMULATION OF CREAM BLUSH ON PREPARATION USING NATURAL COLORANT FROM PUPLE SWEET POTATO (*Ipomoea batatas* L.) EXTRACT AS ANTIOXIDANT AND DETERMINATION OF ANTHOCYANIN LEVELS. THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Purple sweet potato contains anthocyanins that have strong potential as natural colorants and antioxidant agents. This study aimed to evaluate the feasibility of using purple sweet potato extract as a natural colorant in blush on cream, to assess panelists' preferences toward formulations with different extract concentrations, and to determine the antioxidant activity (IC₅₀) and total anthocyanin content of the extract.

The extract was prepared using a solvent mixture of 96% ethanol, acetic acid, and water (25:1:5) and formulated into blush on cream at concentrations of 5%, 10%, and 15%. The formulations were evaluated for physical quality, irritation potential, stability, and hedonic properties. Data analysis included One-Way ANOVA with post-hoc tests for physical quality, paired t-tests for stability, univariate analysis for preference testing, and linear regression with Welch ANOVA for antioxidant activity.

The results showed that all formulations met physical quality requirements and were non-irritating, although none were stable during the cycling test. Preference evaluation indicated that color was most favored in FII and FIII, aroma in FII, and texture in FII and FIII. The highest antioxidant activity, indicated by the lowest IC₅₀ value, was observed in FIII. The total anthocyanin content of the extract was 66.165 mg per 100 g

Keywords: Purple sweet potato, Blush on cream, Anthocyanin, Antioxidant, IC₅₀