

**FORMULASI SEDIAAN KRIM DARI EKSTRAK DAUN KEMANGI
(*Ocimum tenuiflorum*) DAN UJI AKTIVITAS ANTIOKSIDAN DENGAN
METODE DPPH (1,1-diphenyl-2-picrylhydrazyl)**

Lailatul Musarofah¹, Mufrod²

INTISARI

Latar Belakang: Flavonoid terdapat dalam berbagai tanaman antara lain daun kemangi, merupakan senyawa yang memiliki aktivitas antioksidan sehingga dapat meredam radikal bebas, yang disebabkan oleh polusi udara. Krim ekstrak daun kemangi merupakan bentuk yang sesuai untuk penggunaan topikal guna mencegah pengaruh dari sinar ultraviolet.

Tujuan Penelitian: Untuk mengevaluasi aktivitas antioksidan dalam krim ekstrak daun kemangi dengan metode DPPH.

Metode Penelitian: Ekstrak daun kemangi diperoleh secara maserasi. Krim dibuat dalam 4 formula berdasarkan variasi konsentrasi ekstrak sebagai berikut F0 (0%), F1 (1%), F2 (2%), F3 (3%) selanjutnya krim dievaluasi sifat fisika kimia meliputi organoleptis, homogenitas, pH, daya sebar, daya lekat, viskositas. Data yang diperoleh dari hasil uji organoleptis (warna), homogenitas, pH, viskositas dianalisis secara deskriptif, dan data hasil uji daya sebar, daya lekat, dan uji aktivitas antioksidan dianalisis secara statistik.

Hasil Penelitian: Krim ekstrak daun kemangi formula 0% memiliki viskositas, daya sebar daya lekat yang rendah dibandingkan F1%, F2%, F3% terjadi peningkatan viskositas, daya sebar, daya lekat dan F0%, F1%, F2%, F3% mengalami peningkatan aktivitas antioksidan.

Kesimpulan: Peningkatan konsentrasi ekstrak dapat meningkatkan sifat fisik meliputi viskositas, daya sebar, daya lekat dan peningkatan aktivitas antioksidan setiap formula.

Kata kunci: aktivitas antioksidan, daun kemangi, DPPH, krim, variasi konsentrasi ekstrak

¹Mahasiswa Farmasi Universitas Jenderal Achmad Yani Yogyakarta

²Dosen Farmasi Universitas Jenderal Achmad Yani Yogyakarta

**FORMULATION OF CREAM PREPARATIONS FROM BASIL LEAF
EXTRACT (*Ocimum tenuiflorum*) AND ANTIOXIDANT ACTIVITY TEST
BY DPPH METHOD (*1,1-diphenyl-2-picrylhydrazyl*)**

Lailatul Musarofah¹, Mufrod²

ABSTRACT

Background: Flavonoids were found in various plants, including basil leaves, which are compounds that have antioxidant activity so they can reduce free radicals that caused by air pollution. Furthermore, Basil leaf extract cream is suitable for topical use to prevent the effects of UV light.

Objective: To evaluate the antioxidant activity in cream of basil leaf extract using the DPPH method.

Method: Basil leaf extract was obtained by maceration. The cream was created in 4 formulas based on the variations in extract concentration as follows: F0 (0%), F1 (1%), F2 (2%), F3 (3%) then the cream was evaluated for its physical and chemical properties including organoleptic, homogeneity, pH, dispersibility, adhesion, viscosity. The data obtained from the results of the organoleptic test (color), homogeneity, pH, viscosity were analyzed descriptively, and the data from the test results of dispersion, adhesion, and antioxidant activity tests were analyzed statistically

Results: The cream of basil leaf extract formula 0% had viscosity, low adhesion dispersion compared to F1%, F2%, F3% an increase in viscosity, spreadability, adhesion and F0%, F1%, F2%, F3% experienced an increase in antioxidant activity.

Conclusion: Overall, Increasing the concentration of the extract can improve the physical properties including viscosity, spreadability, adhesion and antioxidant activity of each formula.

Keywords: antioxidant activity, basil leaves, DPPH, cream, variation of extract concentration

¹ Student of Pharmacy Universitas Jenderal Achmad Yani Yogyakarta

² Lecturer of Pharmacy Universitas Jenderal Achmad Yani Yogyakarta