

INTISARI

WIRATANTRI, F.I., 2020, UJI AKTIVITAS ANTI AGING KRIM MINYAK BIJI NYAMPLUNG (*Calophyllum inophyllum* L.) PADA PUNGGUNG KELINCI NEW ZEALAND YANG DIPAPAR SINAR UV-A, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA

Sinar UV-A menghasilkan radikal bebas yang berperan dalam penuaan kulit. Radikal bebas dapat dicegah dengan adanya antioksidan. Antioksidan dapat meredam dampak negatif radikal bebas didalam tubuh. Minyak biji nyamplung (*Calophyllum inophyllum* L.) memiliki aktivitas antioksidan. Penelitian ini bertujuan untuk mengetahui aktivitas krim minyak biji nyamplung (*Calophyllum inophyllum* L.) sebagai *anti aging* secara *in vivo* menggunakan kelinci yang dipapar sinar UV-A

Minyak biji nyamplung (*Calophyllum inophyllum* L.) dilakukan karakterisasi indeks bias dan berat jenis kemudian dilakukan identifikasi kandungan kimia. Minyak dibuat sediaan krim kemudian dilakukan uji mutu fisiknya. Pengujian aktivitas *anti aging* dilakukan pada punggung 5 ekor kelinci yang telah dipapar sinar UV-A selama 6 jam dalam waktu 2 minggu. Kulit punggung kelinci dioles dengan sediaan krim minyak biji nyamplung 10; 15 dan 20%. Pengamatan parameter meliputi persen kolagen, persen elastisitas, persen kelembaban dan luas pori, dilakukan sebelum induksi, sesudah induksi dan pengolesan krim selama 4 minggu menggunakan alat *Skin Analyzer*

Hasil uji mutu fisik F1, F2, F3 dan F4 memenuhi syarat organoleptis, homogenitas, pH, viskositas, dan daya sebar. Hasil uji stabilitas F1, F2, F3 dan F4 memenuhi syarat pH dan viskositas. Hasil uji iritasi primer menunjukkan krim sedikit mengiritasi. Hasil uji iritasi okuler menunjukkan krim tidak mengiritasi. Hasil penelitian menunjukkan krim minyak biji nyamplung 15% paling efektif memberikan efek *anti aging*

Kata kunci: minyak biji nyamplung, aktivitas *anti aging*, krim, uji keamanan, *Skin Analyzer*

ABSTRACT

WIRATANTRI, F.I., 2020, TEST OF ANTI-AGING ACTIVITY OF NYAMPLUNG SEED OIL (*Calophyllum inophyllum* L.) CREAM ON THE NEW ZEALAND RABBIT BACK WITH UV-A RAYS, SKRIPSI, FACULTY PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA

UV-A rays produce free radicals that play a role in skin aging. Free radicals can be prevented by the presence of antioxidants. Antioxidants can reduce the negative effects of free radicals in the body. Nyamplung seed oil (*Calophyllum inophyllum* L.) have antioxidant activity. This study aims to determine the activity of nyamplung seed oil (*Calophyllum inophyllum* L.) as an *anti aging in vivo* using rabbits exposed to UV-A rays

Nyamplung seed oil (*Calophyllum inophyllum* L.) was characterized by refractive index and specific gravity then chemical content was identified. The oil is made as a cream preparation and then tested for its physical quality. Anti aging activity testing was carried out on the backs of 5 rabbits that had been exposed to UV-A rays for 6 hours in 2 weeks. The skin of the rabbit's back is smeared with nyamplung seed oil cream preparations 10; 15 and 20%. Observation parameters include percent collagen, percent elasticity, percent moisture and pore area, carried out before induction, after induction and application of cream for 4 weeks using a *Skin Analyzer*

The physical quality test results of F1, F2, F3 and F4 meet organoleptic, homogeneity, pH, viscosity, and dispersal requirements. The results of the F1, F2, F3 and F4 stability tests meet the pH and viscosity requirements. Primary irritation test results showed the cream was slightly irritating. Ocular irritation test results show the cream does not irritate. The results showed nyamplung seed oil cream with a concentration of 15% gave the most effective anti-aging effect.

Keywords: nyamplung seed oil, anti aging activity, cream, safety test, *Skin Analyzer*