COMPARISON OF WELL AND DISK METHODS FOR TEST OF KENIKIR LEAF ESSENTIAL OIL *(Cosmos caudatus K.)* AGAINS *Tricophyton rubrum*

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ABSTRACT

Background: Inhibition test of various concentrations of essential oil of kenikir leaf *(Cosmos caudatus K.)* against *Tricophyton rubrum* using the diffusion method quantitatively contained disk diffusion and wells. Diffusion method to determine the inhibition zone against *Tricophyton rubrum.*
Objective: To determine the effect of various concentrations of essential oils of kenikir leaves *(Cosmos caudatus K.)* on the growth of *Trichophyton rubrum* and to determine the method of wells or disk that can produce a greater inhibition zone.
***M*ethod:** This type of research is pure experimental research with a "Post-test Only Control Group Design". This design has a comparison group (Control) and observation. Data were analyzed analytically by Shapiro Wilk, homogeneity test, One Way Anova test or Kruskall Walis test, Post hoc LSD test or Man Whitney test.
Results: The average diameter of inhibition zone in the well method with concentrations of 15%, 25%, 50%, and 75% was 26.32 mm, 29.62 mm, 32.91 mm and 36.91 mm. The average diameter of inhibition zone in the disk method with concentrations of 15%, 25%, 50%, and 75% is 22.64 mm, 24.41 mm, 28.92 mm and 30.82 mm. The higher the concentration of kenikir leaf essential oil *(Cosmos caudatus K.),* the greater the diameter of the inhibitory zone formed. The mean diameter of the well method compared to the disk method at concentrations of 15%, 25%, 50%, and 75% was 3.68 mm, 5.21 mm, 3.99 mm and 6.09 mm.
Conclusion: There is an effect of various concentrations of essential oil of kenikir leaves *(Cosmos caudatus K.)* on the growth of *Trichophyton rubrum* by the method of wells with greater inhibition zone than the disk method.

Keywords: Concentration of kenikir leaf essential oil (*Cosmos caudatus K.), Tricophyton rubrum*, wells method, disk method

PERBANDINGAN METODE SUMURAN DAN *DISK* UNTUK UJI DAYA HAMBAT MINYAK ATSIRI DAUN KENIKIR*(Cosmos caudatus K.)* TERHADAP JAMUR *Tricophyton rubrum*

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ABSTRAK

Latar Belakang : Uji daya hambat berbagai konsentrasi minyak atsiri daun kenikir (*Cosmos caudatus K.*) terhadap jamur *Tricophyton rubrum* menggunakan metode difusi secara kuantitatif terdapat difusi *disk* dan sumuran.Metode difusi untuk mengetahui zona hambat terhadap jamur.
Tujuan : Mengetahui pengaruh berbagai konsentrasi minyak atsiri daun kenikir (*Cosmos caudatus K.*) terhadap pertumbuhan jamur *Trichophyton rubrum dan* Mengetahui metode sumuran atau *disk* yang dapat menghasilkan zona hambatnya lebih besar.
Metode : Jenis penelitian ini penelitian eksperimen murni dengan rancangan "*Post - test Only Control Group Design".* Rancangan ini ada kelompok pembanding (Kontrol) dan observasi. Data dianalisis secara analitik *Shapiro Wilk,* uji *homogenitas,* Uji *One Way Anova* atau uji *Kruskall Walis, Uji Post hoc LSD atau Man Whitney.*
Hasil : Rata-rata diameter zona hambat pada metode sumuran dengan konsentrasi 15%, 25%, 50%, dan 75% adalah 26,32 mm, 29,62 mm, 32,91 mm dan 36,91 mm. Rata-rata diameter zona hambat pada metode *disk* dengan konsentrasi 15%, 25%, 50%, dan 75% adalah 22,64 mm, 24,41 mm, 28,92 mm dan 30,82 mm. Semakin tinggi konsentrasi minyak atsiri daun kenikir *(Cosmos caudatus K.),* maka semakin besar diameter zona hambat yang terbentuk. Rerata diameter metode sumuran dibanding metode *disk* pada konsentrasi 15%, 25%, 50%, dan 75% adalah 3,68 mm, 5,21 mm, 3,99 mm dan 6,09 mm.
Kesimpulan: Ada pengaruh berbagai konsentrasi minyak atsiri daun kenikir (*Cosmos caudatus K.*) terhadap pertumbuhan jamur *Trichophyton rubrum* dengan metode sumuran lebih besar zona hambatnya dibandingkan dengan metode *disk.*.

Kata Kunci : Konsentrasi minyak atsiri daun kenikir *(Cosmos caudatus K.), Tricophyton rubrum,* Metode sumuran, Metode *disk*