

ABSTRAK

AKTIVITAS ANTI FUNGI FRAKSI ETIL ASETAT BATANG HUJAN EMAS (*Galphimia glauca*) TERHADAP JAMUR *Ganoderma boninense* YANG MENYERANG KELAPA SAWIT (*Elaeis guineensis* Jacq)

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Penelitian ini bertujuan untuk mencari pengaruh komposisi elusi dan komposisi elusi terbaik kolom kromatografi fraksi etil asetat batang tanaman hujan emas (*Galphimia glauca*) yang berpengaruh terhadap pertumbuhan jamur *Ganoderma boninense*. Ekstrak batang tanaman hujan emas (*Galphimia glauca*) yang telah difraksinasi dengan etil asetat kemudian di elusi kolom kromatografi menggunakan komposisi elusi secara berurutan P0 (kontrol); P1 (CH₃Cl 100%); P2 (CH₃OH 3%:CHCl₃ 97%); P3(CH₃OH 20%: CHCl₃ 80%); dan P4 (CH₃OH 100%) kemudian diuji terhadap jamur *G.boninense* menggunakan metode in vitro. Pengujian aktivitas anti fungi dilakukan dengan pengamatan makroskopis, laju pertumbuhan (cm/day), dan nilai penghambatan pertumbuhan (%) jamur *G.boninense* pada berbagai kombinasi pelarut fraksi etil asetat menggunakan teknik peracunan makanan. Data yang diperoleh di uji dengan uji bartlet dan uji teckey lalu dilanjutkan dengan uji ANOVA dan uji BNT (Beda Nyata Terkecil) pada taraf 5%. Berdasarkan hasil penelitian, komposisi elusi berpengaruh terhadap pertumbuhan jamur *Ganoderma boninense* dan komposisi elusi terbaik kolom kromatografi fraksi etil asetat batang tanaman hujan emas (*Galphimia glauca*) yang berpengaruh terhadap pertumbuhan jamur *Ganoderma boninense* adalah perlakuan P4 (100% CH₃OH) yang memberi kemampuan efektif menghambat laju pertumbuhan jamur *G. boninense* sebesar 0.58 cm/day, nilai penghambatan sebesar 19,73 %, dan bentuk makroskopis yang membentuk miselium tipis dengan tepi koloni bulat merata serta menyebar segala arah.

Kata Kunci: Kolom kromatografi, Jamur *G.boninense*, Tanaman hujan emas (*Galphimia glauca*), Anti fungi

ABSTRACT

ANTI-FUNGI ACTIVITY OF THE ETHYL ACETATE FRACTION OF GOLDEN RAIN STICK (*Galphimia glauca*) AGAINST THE FUNGI *Ganoderma boninense* WHICH AFFECTS PALM OIL (*Elaeis guineensis* Jacq)

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This research aims to find the effect of the elution composition and the best elution composition of the chromatography column of the ethyl acetate fraction of the stem of the golden rain plant (*Galphimia glauca*) which influences the growth of the *Ganoderma boninense* fungus. The stem extract of the golden rain plant (*Galphimia glauca*) which has been fractionated with ethyl acetate is then eluted on a chromatography column using sequential elution compositions P0 (control); P1 (CH₂Cl 100%); P2 (CH₃OH 3%:CHCl₃ 97%); P3(CH₃OH 20%: CHCl₃ 80%); and P4 (CH₃OH 100%) were then tested against the fungus *G. boninense* using the in vitro method. Anti-fungal activity testing was carried out by macroscopic observation, growth rate (cm/day), and growth inhibition value (%) of the *G. boninense* fungus in various combinations of ethyl acetate fraction solvents using food poisoning techniques. The data obtained was tested using the Bartlett test and t-test then continued with the ANOVA test and Least Significant Difference (LSD) test at the 5% level. Based on the research results, the elution composition has an effect on the growth of the *Ganoderma boninense* fungus and the best elution composition of the chromatography column ethyl acetate fraction of the stem of the golden rain plant (*Galphimia glauca*) which has an effect on the growth of the *Ganoderma boninense* fungus is P4 treatment (100% CH₃OH) which provides the ability to effectively inhibit the growth of the *Ganoderma boninense* fungus. The growth of the *G. boninense* fungus was 0.58 cm/day, the inhibition value was 19.73%, and the macroscopic form formed a thin mycelium with evenly rounded colony edges and spread in all directions.

Keywords: Chromatography column, *G. boninense* fungus, Golden rain plant (*Galphimia glauca*), Anti fungi