

**AKTIVITAS ANTIMIKROBA DAN ANTIOKSIDAN REBUSAN DAN
SEDUHAN BENALU (*Scurrula ferruginea* (Roxb. ex Jack) Danser TANAMAN
KAKAO**

SKRIPSI SARJANA BIOLOGI

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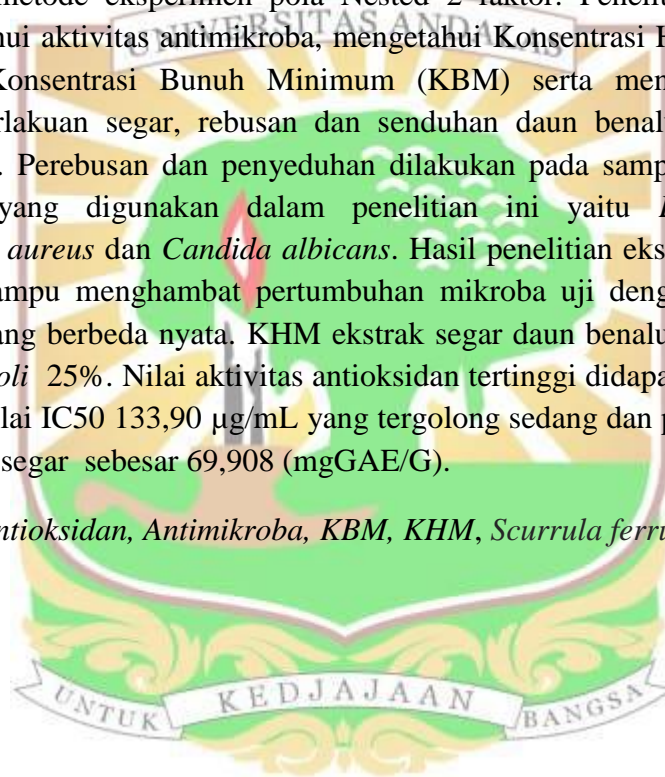
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ABSTRAK

Benalu *Scurrula ferruginea* (Roxb. ex Jack) Danser merupakan tanama bersifat parasit terhadap inang tempat tumbuhnya, dapat tumbuh di berbagai inang salah satunya kakao. Walaupun bersifat parasit masyarakat banyak memanfaatkan sebagai obat. Bagian yang biasa digunakan yaitu daun, dimana daun dari benalu (*S. ferruginea*) telah banyak dikenal sebagai penyembuhan beberapa penyakit seperti infeksi kulit, penyakit saluran pencernaan, hipertensi dan diare. Penelitian mengenai aktivitas antimikroba dan antioksidan rebusan dan seduhan benalu (*S. ferruginea*) tanaman kakao telah dilaksanakan pada bulan Maret sampai Juni 2022. Penelitian ini menggunakan metode eksperimen pola Nested 2 faktor. Penelitian ini bertujuan untuk mengetahui aktivitas antimikroba, mengetahui Konsentrasi Hambat Minimum (KHM) dan Konsentrasi Bunuh Minimum (KBM) serta mengetahui aktivitas antioksidan perlakuan segar, rebusan dan seduhan daun benalu (*S. ferruginea*) tanaman kakao. Perebusan dan penyeduhan dilakukan pada sampel kering benalu. Mikroba uji yang digunakan dalam penelitian ini yaitu *Escherichia coli*, *Staphylococcus aureus* dan *Candida albicans*. Hasil penelitian ekstrak *S. ferruginea* pada kakao mampu menghambat pertumbuhan mikroba uji dengan menghasilkan zona hambat yang berbeda nyata. KHM ekstrak segar daun benalu, untuk *S. aureus* 12,5% dan *E.coli* 25%. Nilai aktivitas antioksidan tertinggi didapatkan pada sampel segar dengan nilai IC50 133,90 µg/mL yang tergolong sedang dan polifenol tertinggi pada perlakuan segar sebesar 69,908 (mgGAE/G).

Kata Kunci: *Antioksidan, Antimikroba, KBM, KHM, Scurrula ferruginea.*



ABSTRACT

Mistletoe *Scurrula ferruginea* (Roxb. ex Jack) Danser is a parasitic plant to the host where it grows, can grow in various hosts, one of which is cocoa. Although it is a mistletoe, many people use it as medicine. The part commonly used is the leaf, where the leaves of the Mistletoe (*S. ferruginea*) have been widely known as a cure for several diseases such as skin infections, digestive tract diseases, hypertension and diarrhea. Research about antimicrobial and antioxidant activity of the boiled and brewed of the Mistletoe (*S. ferruginea*) of cacao plant was carried out from March to June 2022. This study used an experimental method with a 2-factor nested pattern. This study aimed to determine the antimicrobial activity, determine Minimum Inhibitory Concentration (MIC), and Minimum Lethal Concentration (MLC), as well as antioxidant treatment activity of fresh, boiled, and brewed leaves of the Mistletoe (*S. ferruginea*) of cocoa plant. Boiled and brewed were carried out on dry samples of mistletoe. The test microbes used in this study were *Escherichia coli*, *Staphylococcus aureus* dan *Candida albicans*. The results of the study that the extract of *S. ferruginea* in cocoa was able to inhibit the growth of the test microbes by producing a significantly different inhibition zone. For *S. aureus*, the MIC fresh extract of mistletoe leaves was 12.5% and for *E. coli*, it was 25%. The highest antioxidant activity value was found in fresh samples with an IC₅₀ value of 133.90 g/mL, which was classified as moderate, and the highest polyphenols in fresh treatment was 69,908 (mgGAE/G).

Keywords: *Antioxidant, Antimicrobial, MIC, MLC, Scurrula ferruginea*

