ABSTRAK

Chintiya Des'Afrina (01034170024)

AKTIVITAS ANTIBAKTERI MINYAK ATSIRI DAUN KEMUNING (*Murraya paniculata*)

Skripsi, Fakultas Sains dan Teknologi (2021)

(xiii + 48 halaman; 17 gambar; 6 tabel; 8 lampiran)

Tanaman Kemuning (*Murraya paniculata*) termasuk dalam famili *Rutaceae*. Minyak atsiri pada daun kemuning memiliki potensi sebagai antibakteri. Minyak atsiri daun kemuning berfungsi sebagai antibakteri karena memiliki senyawa antibakteri, seperti *eugenol*. Daun kemuning memiliki beberapa varietas, yaitu daun kemuning Jawa, daun kemuning Jepang, dan daun kemuning Bali. Tujuan dari penelitian ini adalah untuk memanfaatkan minyak atsiri varietas daun kemuning yang dihasilkan melalui proses hidrodistilasi sebagai antibakteri. Proses hidrodistilasi dilakukan untuk mendapatkan minyak atsiri pada daun kemuning. Minyak atsiri yang didapatkan, kemudian dilakukan uji aktivitas antibakteri, yaitu metode difusi sumur, MIC (*Minimum Inhibitory Concentration*) dan MBC (*Minimum Bactericidal Concentration*). Aktivitas antibakteri minyak atsiri daun kemuning Jawa memiliki diameter zona hambat terhadap *S. aureus* antara 5,08±0,14 mm sampai 14,54±0,26 mm dan diameter zona hambat terhadap *Salmonella* antara 4,46±0,25 mm sampai 12,33±0,28 mm. Minyak atsiri daun kemuning Jawa memiliki nilai MIC terhadap *Salmonella* sebesar 4,72% dan nilai MBC sebesar 18,91. Minyak atsiri daun kemuning Jawa memiliki nilai MIC terhadap *S. aureus* sebesar 4,58% dan nilai MBC sebesar 18,35.

Kata kunci : Daun kemuning Jawa, Daun kemuning Jepang, Daun kemuning Bali, Minyak atsiri, Hidrodistilasi, *S. aureus*, *Salmonella*

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ABSTRACT

Chintiya Des'Afrina (01034170024)

ANTIBACTERIAL ACTIVITIES OF THE ESSENTIAL OIL OF KEMUNING LEAVES (Murraya paniculata)
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The kemuning plant (Murraya paniculata) belongs to the Rutaceae family. The essential oil in kemuning leaves has potention as an antibacterial. Kemuning leaves contain secondary metabolite compounds, such as essential oils, flavonoids, saponins, and tannins. The essential oil of kemuning leaves functions as antibacterial because it has antibacterial compounds, such as eugenol. Kemuning leaves have several varieties, such as kemuning leaves Jawa, kemuning leaves Jepang, and kemuning leaves Bali. The purpose of this study was to utilized the essential oils varieties of kemuning leaves obtained though the hydrodistillation process as an antibacterial. The hydrodistillation process is carried out to obtain essential oil on kemuning leaves. The essential oils were obtained, then it tested for antibacterial activity, namely the diffusion method, MIC (Minimum Inhibitory Concentration) and MBC (Minimum Bactericidal Concentration). The yields of essential oils by kemuning leaves Jawa, kemuning leaves Jepang, and kemuning leaves Bali are 0,75%; 0,79%; and 0,62%. Antibacterial activity of Jawa's kemuning leaf essential oil has an inhibition zone diameter against *S. aureus* between 5,08±0,14 mm to 14,54±0,26 mm and a zone diameter of inhibition against *Salmonella* between 4,46±0,25 mm to 12,33±0,28 mm. Jawa's kemuning leaf essential oil has an MIC value against *Salmonella* of 4,72% and an MBC value of 18,91. Jawa's kemuning leaf essential oil has an MIC value against *S. aureus* of 4,58% and an MBC value of 18,35.

Keywords : kemuning leaves Jawa, kemuning leaves Jepang, kemuning leaves Bali, essential oils, hydrodistillation, *S. aureus*, *Salmonella*

References : 80 (2011-2020)