

## ABSTRAK

**KARAKTERISASI MINYAK ATSIRI DARI DAUN SEGAR DAN LAYU TANAMAN SALAM (*Syzygium polyanthum* Wight) ASAL DATARAN TINGGI LOKSADO KALIMANTAN SELATAN (Oleh Ahmad Muzakir; Pembimbing apt. Eka Fitri Susiani, M.Sc; apt. Didik Rio Pambudi, M.Farm; 2024; 83 Halaman)**

Tanaman Salam (*Syzygium polyanthum* Wight) adalah salah satu tanaman yang sering digunakan sebagai pengobatan alternatif dan mengandung minyak atsiri. Minyak atsiri adalah salah satu metabolit sekunder dari tanaman yang berbentuk minyak dengan karakteristik mudah menguap (*volatile*). Penelitian ini bertujuan untuk mengetahui % rendemen, hasil karakterisasi minyak atsiri dan senyawa penyusun pada minyak atsiri dari kedua sampel. Sampel di ambil dari dataran tinggi Loksado dan disuling menggunakan metode destilasi air. Analisis komponen penyusun minyak atsiri dilakukan menggunakan GC-MS (*Gas Chromatography-Mass Spectrometry*). Hasil rendemen minyak atsiri yang didapatkan pada daun segar yaitu 0,28333% dan pada daun layu yaitu 0,21333%. Karakterisasi menunjukkan minyak atsiri daun salam segar berwarna kuning dan daun salam layu berwarna kuning, berat jenis minyak atsiri daun salam segar yaitu 0,912 g/mL dan daun salam layu yaitu 0,917 g/mL, indeks bias minyak atsiri kedua sampel menghasilkan nilai >1,070 dan kelarutan minyak atsiri kedua sampel larut dalam etanol 96% dengan perbandingan 1:2. Analisis Minyak atsiri daun Salam (*Syzygium Polyanthum* Wight) segar didapat sebanyak 18 senyawa dan pada daun layu terdapat 17 senyawa. Pada sampel segar dan layu menunjukkan 12 senyawa yang sama yaitu *2H-Pyran-2-one*, *3-Acetyl-4hydro*, *α-Guaiene*, *β-Elemene*, *Delta-Guaiene*, *Dodecanoic Acid*, *1,2,3-Propanetriyl Ester*, *Dodecanoic Acid (CAS)* *Lauric Acid*, *Epiglobulol*, *Heptadecene-(8)-Carbonic Acid*, *Hexadecanoic Acid (CAS)* *Palmitic Acid*, *Octanal (CAS)* *N-Octanal*, *Trans-Caryophyllene*, *Z-4-Decenal*.

**Kata Kunci** : Daun Salam (*Syzygium polyanthum* Wight), Minyak Atsiri, Karakterisasi, Analisis GC-MS

## ABSTRACT

### **CHARACTERIZATION OF ESSENTIAL OIL FROM FRESH AND WITHERED LEAVES OF BAY PLANT (*Syzygium polyanthum* Wight) FROM LOKSADO HIGHLANDS, SOUTH KALIMANTAN (By Ahmad Muzakir; Supervisor apt. Eka Fitri Susiani, M.Sc; apt. Didik Rio Pambudi, M.Farm; 2024; 83 pages)**

The Bay Plant (*Syzygium polyanthum* Wight) is one of the plants that is often used as an alternative medicine and contains essential oils. Essential oils are one of the secondary metabolites of plants in the form of oils with volatile characteristics. This study aims to determine the % yield, results of characterization of essential oils and constituent compounds in essential oils from both samples. The samples were taken from the Loksado plateau and distilled using the water distillation method. Analysis of the constituent components of essential oils was carried out using GC-MS (*Gas Chromatography-Mass Spectrometry*). The yield of essential oils obtained in fresh leaves was 0.28333% and in withered leaves was 0.21333%. The characterization showed that the essential oil of fresh bay leaf was yellow and the wilted bay leaf was yellow, the specific gravity of fresh bay leaf essential oil was 0.912 g/mL and the withered bay leaf was 0.917 g/mL, the refractive index of the essential oil of the two samples produced a value of >1.070 and the solubility of the essential oil of the two samples was soluble in ethanol of 96% with a ratio of 1:2. Analysis of fresh Bay leaf essential oil (*Syzygium Polyanthum* Wight) obtained as many as 18 compounds and in withered leaves there were 17 compounds. Fresh and withered samples showed the same 12 compounds, namely *2H-Pyran-2-one*, *3-Acetyl-4hydro*, *α-Guaiene*, *β-Elemene*, *Delta-Guaiene*, *Dodecanoic Acid*, *1,2,3-Propanetriyl Ester*, *Dodecanoic Acid (CAS)* *Lauric Acid*, *Epiglobulol*, *Heptadecene-(8)-Carbonic Acid*, *Hexadecanoic Acid (CAS)* *Palmitic Acid*, *Octanal (CAS)* *N-Octanal*, *Trans-Caryophyllene*, *Z-4-Decenal*.

**Keywords** : bay leaf, essential oil, characterization, GC-MS analysis