

KERAGAMAN KOMPONEN KIMIA GAHARU PADA KELAS SUPER DAN KEMEDANGAN (*Variability of Agarwood Chemical Compound on Super and Kemedangan Class*)

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ABSTRACT

This paper presents to the resin content and the chemical composition in agarwood with several quality using gas chromatography mass spectrometry. The agarwood qualities as tested were those super and kemedangan classes originated from Bangka, Papua and Assosiation of Indosnesia's Agarwood Exportry Enterprise (Asgarin). Results revealed the resin yield of super quality agarwood was higher than that of kemedangan-quality counterpart. Agarwood with high resin content was regarded a high (super) quality, and its chemical composition was predominantly chromone and gamma gurjunene. On the contrary, agarwood with low quality (kemedangan) chemically comprised 2.5 furandione, 3-dodecenyl and agarospirol. Further super-quality agarwood chemically contained more sesquiterpene than kemedangan-quality. Sesquiterpene and chromone compound were indicatively responsible the fragrant arome revealed by agarwood. The quality of agarwood in the same quality class but originated from different regions revealed the resin content as well as chemical composition which was different from each other.

Keywords: Agarwood, resin, chemical composition, GCMS

ABSTRAK

Tulisan ini mempelajari kadar resin dan komposisi senyawa kimia dari beberapa kualitas gaharu menggunakan kromatografi gas spektrometri massa. Kualitas gaharu yang diuji adalah kelas super dan kemedangan yang berasal dari Bangka, Papua dan Asosiasi Pengusaha Eksportir Gaharu Indonesia (Asgarin). Hasil penelitian menunjukkan rendemen resin gaharu lebih tinggi pada kelas kualitas super daripada kelas kemedangan. Gaharu berkadar resin tinggi dianggap sebagai berkualitas tinggi (super), dan komposisi kimianya didominasi oleh chromone dan gamma gurjunene. Sebaliknya gaharu berkualitas rendah (kemedangan) berkomposisi kimia 2,5 furandione, 3-dodecenyl dan agarospirol. Komponen kimia gaharu kelas super mengandung lebih banyak senyawa kelompok sesquiterpena dibanding kelas kemedangan. Senyawa sesquiterpena dan chromone berindikasi kuat menyebabkan aroma harum pada gaharu. Kualitas gaharu pada kelas yang sama menunjukkan rendemen resin dan komposisi kimia yang berbeda dari tiga lokasi yang diteliti.

Kata kunci: Gaharu, resin, komposisi kimia, GCMS