INTISARI

Dalam rangka pengembangan obat tradisional, telah dilakukan penelitian terhadap rimpang laos (*Languas galanga*.L). Masalah yang ditampilkan dalam penelitian ini mengenai perbedaan minyak atsiri dari rimpang laos baik dalam bentuk segar maupun bentuk kering. Penelitian ini bertujuan untuk mengetahui spesifikasi minyak atsiri rimpang laos baik dalam bentuk segar maupun yang telah dikeringkan.

Penelitian ini termasuk jenis penelitian non eksperimental dan dianalisis secara deskriptif-komparatif. Penelitian ini dilakukan meliputi beberapa tahap diawali dengan isolasi minyak atsiri dari rimpang laos baik dalam bentuk segar maupun yang telah dikeringkan dengan metode destilasi uap air. Minyak atsiri yang dihasilkan selanjutnya diteliti apakah ada perbedaan dilihat dari segi kadar, indeks bias, makroskopis, mikroskopis, profil kromatografi, dan dilakukan identifikasi dengan pereaksi warna.

Dari hasil penelitian diperoleh rata-rata kadar minyak atsiri untuk rimpang laos segar 0,333 % v/b ± 0,008; kering 0,916 % v/b ± 0,02. Pemeriksaan makroskopis menunjukkan rimpang berukuran besar, berdaging keras, dan berbau aromatik dengan rasa pedas. Pemeriksaan mikroskopis rimpang laos menujukkan adanya amilum berkas pembuluh, parenkim, endodermis, sel gabus, oleresin, serbut sklerenkim, dan trakea. Indeks bias minyak atsiri pada suhu 20°C untuk rimpang laos segar dan laos kering adalah 1,4890 , bobot jenis pada suhu 20°C untuk rimpang laos segar 0,94904 dan untuk rimpang yang kering 0,95578. Pada analisis warna dari minyak atsiri laos mengandung senyawa fenolik dan komponen lain yang mempunyai ikatan rangkap C=C alifatik. Hasil KLT untuk minyak atsiri rimpang laos dengan fase gerak n-heksan-etil asetat (96:4v/v) yang dideteksi dengan vanilin-asam sulfat P terdapat tiga bercak dengan nilai Rf yang berbeda. Nilai Rf untuk rimpang laos segar berturut-turut yaitu 0,75; 0,45; 0,14 sedangkan nilai Rf untuk rimpang laos kering 0,73; 0,45; 0,15. Kromatografi gas masing-masing diperoleh 3 puncak pemisahan tertinggi yang diduga mengarah pada *β - farnesene, eucalyptol,* dan *β - myrcene.* Pada analisis minyak atsiri secara GC-MS, senyawa tersebut diduga mengarah pada *β - farnesene, eucalyptol,* dan *β - myrcene.*

ABSTRACT

In the frame of traditional medicines development, it has been carried out a research toward galingale's rhizome (*Languas galanga.* L). The problem presented within this research was about the differences between volatile oil of galingale's rhizome both in fresh form and in dried form. The research aimed to understand the specification of volatile oil of galingale's rhizome both in fresh form and in already dried form.

This research is included into the kind of non-experimental research, and was analyzed in descriptive-comparative way. The research implemented comprises several stages, and was preceded with an isolation of volatile oil from galingale's rhizome both in fresh form and in already dried form by using a method of water's steam distillation. Volatile oil produced furthermore is investigated whether there were any differences observing from its contents, bias index, macroscopic, microscopic, and chromatography profile aspects; and brought out an identification with a color reagent.

From the results of research, they were obtained that the average of volatile oil for fresh galingale's rhizome was 0.333% v/b ± 0.008 and dried galingale's rhizome was 0.916% v/b ± 0.02. Macroscopic investigation showed rhizome had big size, hard plump, and aromatic smell with hot taste. Microscopic investigation showed there were amylum of bundles of parenkim, endodermis, cork cell, oleresin, sclerencim and tracea vessel. Bias index of volatile oil on temperature of 20°C for fresh galingale's rhizome and dried galingale's rhizome were 1.4890, weight per volume on temperature of 20°C for fresh galingale's rhizome was 0.94904 and for dried galingale's rhizome was 0.95578. Upon the color analysis of galingale's volatile oil, it contained a phenolic compound and others compound which having double bond of C=C aliphatic. The result of KLT for volatile oil of galingale's rhizome with movement phase of n-heksan-etil acetate (96:4v/v) detected with vanillin-acid of sulfate P, it can be found three spots with different Rf's values. Values of Rf for fresh galingale's rhizome in succession were 0.75; 0.45; 0.14, whereas values of Rf for dried galingale's rhizome were 0.73; 0.45; 0.15. Each of gas' chromatography was obtained three tops of highest separation that presumed leading to *β-farnesene, eucalyptol,* and *β-myrcene.* On the analysis of volatile oil by GC-MS, that compound was presumed led to *β-farnesene, eucalyptol,* and *β-myrcene.*