

**PENGARUH LAMA PENGERINGAN BAHAN DAN LAMA DESTILASI
TERHADAP SIFAT FISIKO-KIMIA MINYAK ATSIRI BIJI KAPULAGA
LOKAL (*Amomum cardamomum*)**

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INTISARI

Kualitas minyak biji Kapulaga (*Amomum cardamomum*) dapat dipengaruhi oleh beberapa hal seperti persiapan pengolahan, proses ekstraksi (pengolahan), perlakuan setelah pengolahan, serta proses pengemasan. Penelitian mengenai pengaruh lama pengeringan dan lama destilasi Kapulaga (*Amomum cardamomum*) masih terbatas sehingga perlu diteliti mengenai kualitas dari minyak tersebut. Penelitian ini bertujuan untuk mengetahui pengaruh lama pengeringan dan lama destilasi terhadap rendemen dan sifat fisiko-kimia minyak atsiri biji Kapulaga.

Penelitian menggunakan rancangan acak lengkap atau CRD (*Completely Randomized Design*) menggunakan dua faktor lama pengeringan (segar, 1 minggu dan 2 minggu) dan lama pemasakan (4 jam, 6 jam, dan 8 jam) masing-masing tiga ulangan menghasilkan 27 sampel. Standar pengujian yang digunakan Standar ISO 4733:1981 *Oil of Cardamom*.

Hasil penelitian menunjukkan bahwa variasi perlakuan lama pengeringan (segar, 1 minggu, dan 2 minggu) memberikan pengaruh nyata pada nilai kadar air, rendemen, putaran optik dan indeks bias. Variasi perlakuan lama pemasakan (4 jam, 6 jam dan 8 jam) tidak memberikan nilai nyata pada semua parameter yang diuji. Parameter yang diuji tidak semua memenuhi standar ISO 4733:1981. Kualitas minyak atsiri Kapulaga terbaik didapatkan pada lama pengeringan 1 minggu, sedangkan lama pemasakan tidak terlalu berpengaruh terhadap perbedaan sifat fisiko-kimia tiap minyak.

Kata kunci : destilasi, Kapulaga, minyak atsiri, fisiko-kimia, lama pengeringan

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EFFECT OF DRYING TIME AND DESTILATION TIME ON PHYSICO-CHEMICAL PROPERTIES OF LOCAL CARDAMOMUM SEEDS
(Amomum cardamomum)

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ABSTRACT

Cardamom seed oil (*Amomum cardamomum*) qualities was influenced by process preparation, extraction, post product treatment, and packaging process. Research on distillation time of cardamom (*Amomum cardamomum*) still limited and need to investigate. The aims of this research are determine drying time and destination time of cardamom seed oil on physico-chemical properties of cardamom seeds essential oils.

This research used a Completely Randomized Design (CRD) with two factors. Factor of drying time (fresh, 1 week and 2 weeks) and factor of destilation time (4 hours, 6 hours, and 8 hours). Each combination was replicate in three times and resulted in 27 samples. Standard test was issued by ISO 4733 Standard: 1981 Oil of Cardamom.

The results of this research show that variation of drying time factor (fresh, 1 week, and 2 weeks) gave significant value for moisture content, yields, optical rotation and refractive index gave significant difference. Distillations time factor (4 hours, 6 hours and 8 hours) gave not significant value to all parameters. Furthermore not all of the values fulfill the ISO 4733: 1981. The best quality of Cardamom essential oil was found in 1 week of dried, while there was not much difference in time distillation quality of physico-chemical properties of oil.

Keywords: distillation, Cardamom, essential oil, physico-chemical, drying time

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