

## INTISARI

Daun gaharu (*Aquilaria malaccensis* Lamk.) memiliki banyak manfaat kesehatan dan dapat digunakan dalam pembuatan minuman fungsional. Daun gaharu memiliki senyawa metabolit sekunder seperti senyawa fenol, tanin, dan flavonoid. Daun gaharu menunjukkan aktivitas antioksidan yang dapat menghambat kerusakan oksidatif sehingga dapat meningkatkan daya tahan tubuh. Penelitian ini bertujuan untuk menentukan ukuran irisan daun dan cara penyeduhan yang menghasilkan seduhan dengan aktivitas antioksidan, fenol dan tanin yang tinggi serta disukai panelis.

Pada penelitian ini daun gaharu diperlakukan pemetikan, sortasi, pencucian, penekanan, pengecilan ukuran yaitu 5 mm, 10 mm dan utuh/tanpa pengecilan. Daun gaharu dikeringkan pada suhu 50°C selama 8 jam kemudian diuji kadar airnya. Daun kering dilakukan penyeduhan dengan 3 cara yaitu dengan air 80°C, 100°C dan perebusan selama 5 menit. Hasil seduhan yang diperoleh diuji fenol total, tanin, aktivitas antioksidan dan uji kesukaan. Data yang diperoleh dihitung secara statistik dengan Rancangan Acak Lengkap (RAL) pola faktorial dan analisis ANOVA, apabila terdapat perbedaan nyata dilanjutkan dengan uji *Duncan Multiple Range Test* (DMRT).

Hasil penelitian menunjukkan bahwa ukuran irisan daun dan cara penyeduhan memberikan pengaruh signifikan terhadap fenol total, tanin dan aktivitas antioksidan seduhan daun gaharu. Kombinasi perlakuan terbaik tersebut adalah seduhan gaharu dengan ukuran irisan daun 10 mm dengan cara perebusan mengandung fenol total  $1,28 \pm 0,00$  mg/100 g bk, tanin  $1,66 \pm 0,03$  mg/100 g bk, aktivitas antioksidan  $80,47 \pm 0,13\%$  RSA, serta kadar air  $7,84 \pm 0,33\%$ . Secara kesukaan seduhan daun gaharu dengan ukuran irisan daun 10 mm dan cara perebusan disukai oleh panelis.

**Kata kunci:** daun gaharu, aktivitas antioksidan, penyeduhan

**THE EFFECT OF LEAVES SLICED SIZE AND BREWING METHOD ON  
THE CHEMICAL PROPERTIES AND PREFERENCES LEVEL OF  
DRIED AGARWOOD LEAVES BREWED (*Aquilaria malaccensis* Lamk.)**

**ABSTRACT**

Agarwood leaves (*Aquilaria malaccensis* Lamk.) have many benefits that can be used for health. For example, it can be served as functional drinks. Agarwood leaves contain secondary metabolite compounds such as phenols, tannins, and flavonoids. They are indicate to have antioxidant activity that can abstract oxidative damage. As a result, it can increase immunity. This study aims to determine the leaves sliced size and brewing method which produces steeping with high antioxidant activity, total phenol, tannin and level of preference of the panelist.

In this study agarwood leaves are picked, sorted, washed, pressed, sliced the size of 5 mm, 10 mm and whole/without sliced. Agarwood leaves are dried at 50°C for 8 hours then tested its water content. The dried leaves are brewed with 3 methods, such as using water with temperature of 80°C, 100°C and boiling water for 5 minutes. After the brewing process, it will face the testing process for its total phenol, tannins, antioxidant activity and their preference test. The data that has been obtained were calculated statistically with a completely randomized design (CRD) factorial pattern and ANOVA analysis. *Duncan Multiple Range Test* (DMRT) will be done when significant differences are founded in the data.

The results showed that the size reduction and brewing method had a significant effect on total phenol, tannin and antioxidant activity of steeping Agarwood leaves. The best combination of treatments was Agarwood steeping with a size reduction of 10 mm and boiling method containing total phenol  $1.28 \pm 0.00$  mg/100 g db, tannin  $1.66 \pm 0.03$  mg/100 g db, antioxidant activity  $80.47 \pm 0.13\%$  RSA, with moisture content  $7.84 \pm 0.33\%$ . Brewing the agarwood leaves with the treatment 10 mm sliced size and brewing-boiling method is more preferred by the panelist.

**Keywords:** agarwood leaves, antioxidant activity, brewing