

INTISARI

Temu lawak (*Curcuma xanthorrhiza* Roxb) memiliki banyak manfaat kesehatan dan dapat digunakan dalam pembuatan obat herbal atau minuman tradisional. Temu lawak mengandung senyawa kurkumin yang terbukti mengurangi kerusakan oksidatif sehingga dapat meningkatkan daya tahan tubuh. Penelitian ini bertujuan untuk menentukan konsentrasi dan variasi larutan *blanching* terbaik dalam pembuatan serbuk instan temu lawak.

Temu lawak dilakukan sortasi, pengupasan, pencucian, kemudian di-*blanching* dalam masing-masing larutan asam sitrat dan asam askorbat dengan konsentrasi 0; 0,025; 0,050 dan 0,075% b/v. Temu lawak hasil *blanching* yang diperoleh kemudian diuji kadar air, fenol total, serat kasar dan aktivitas antioksidan. 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 analisis terbaik digunakan sebagai pembuatan serbuk instan temu lawak dan diuji kesukaannya.

Hasil penelitian menunjukkan bahwa konsentrasi dan variasi larutan *blanching* terbaik pada temu lawak hasil *blanching* adalah asam sitrat 0,050% memberikan pengaruh signifikan pada aktivitas antioksidan, kadar air, fenolik total, dan serat kasar, dengan aktivitas antioksidan yaitu $80,48 \pm 0,45\%$ RSA, kadar fenol total $55,70 \pm 0,10$ mg GAE/g, kadar air $81,59 \pm 1,42\%$, serta kadar serat kasar $20,95 \pm 0,22\%$. Secara kesukaan serbuk instan temu lawak dengan rasio perbandingan ekstrak temu lawak hasil *blanching* dan gula pasir (1:1,5) disukai oleh panelis.

Kata kunci : Temu lawak, aktivitas antioksidan, *blanching*, serbuk instan

THE EFFECT OF CONCENTRATION AND BLANCHING SOLUTION VARIATION ON THE PHYSICAL AND CHEMICAL PROPERTIES OF INSTANT TEMU LAWAK (*Curcuma xanthorrhiza* Roxb) POWDER

ABSTRACT

Temu lawak (*Curcuma xanthorrhiza* Roxb) has many health benefits and can be used in making herbal medicines or traditional drinks. Temu lawak contains curcumin compounds that are proven to reduce oxidative damage so that it can increase endurance. This study aims to determine the concentration and variation of the best blanching solution in making temu lawak instant powder.

Temu lawak is sorted, stripped, washed, that are blanched in each solution of citric acid and ascorbic acid with a concentration of 0; 0.025; 0.050 and 0.075% b/v. The results of blanching temu lawak were tested for water content, total phenol, crude fiber, and antioxidant activity. The data obtained were calculated statistically with a completely randomized design (CRD) factorial pattern and ANOVA analysis if there were significant differences followed by the Duncan Multiple Range Test (DMRT) test. The best analysis results are used as the making of temulawak instant powder and tested for their preferences.

The results showed that concentration and variation of the best blanching solution on blanching temulawak were 0.050% citric acid which had a significant effect on antioxidant activity, water content, total phenolic, and crude fiber, with antioxidant activity of $80.48 \pm 0.45\%$ RSA, total phenol content of 55.70 ± 0.01 mg GAE/g, water content $81.59 \pm 1.42\%$, and crude fiber content $20.95 \pm 0.22\%$. Preferably, instant temu lawak powder with a ratio of temu lawak blanching extract and granulated sugar (1:1.5) are favored by panelists.

Keywords: temu lawak, antioxidant activity, blanching, instan powder