

ABSTRAK

PENGARUH WAKTU PERTUMBUHAN KECAMBAH KACANG HIJAU (*Vigna radiata* L.) TERHADAP KANDUNGAN FENOLIK DAN FLAVONOID TOTAL

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Radikal bebas dalam jumlah berlebih dalam tubuh dapat menyebabkan penyakit-penyakit berbahaya, seperti kanker, aterosklerosis dan penyakit arteri koroner, serta penyakit autoimun. Kecambah kacang hijau mengandung banyak antioksidan yang berfungsi menangkal radikal bebas dalam tubuh, seperti senyawa fenolik dan flavonoid. Penelitian ini bertujuan mengetahui kadar fenolik dan flavonoid total pada kecambah kacang hijau berdasarkan pengaruh waktu pertumbuhannya. Penelitian eksperimental dengan rancangan *post-test only control group design* menggunakan kacang hijau yang dkecambahkan selama 0 hari, ½ hari (12 jam), 1 hari, 2 hari, 3 hari, 4 hari, dan 5 hari. Kecambah kacang hijau diekstrak menggunakan metode soxhletasi dan diuji kadar fenolik dan flavonoid totalnya. Hasil kadar fenolik total paling tinggi terdapat pada perkecambahan hari ke-2 sebesar 0,3676 mg GAE/gram ekstrak. Kadar flavonoid total paling tinggi terdapat pada perkecambahan hari ke-3 sebesar 1,1755 mg QE/gram ekstrak.

Kata kunci: kecambah kacang hijau, kadar fenolik total, kadar flavonoid total

ABSTRACT

THE EFFECT OF GERMINATION TIME OF MUNG BEAN (*Vigna radiata* L.) ON TOTAL PHENOLIC AND FLAVONOID CONTENT

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Free radicals in excess in the body can cause dangerous diseases, such as cancer, atherosclerosis and coronary artery disease, as well as autoimmune diseases. Mung bean sprouts contain many antioxidants that function to ward off free radicals in the body, such as phenolics and flavonoids. This study aimed to determine the total phenolic content and total flavonoid content in mung bean sprouts based on the effect of germination time. Mung beans were germinated for 0 days, days (12 hours), 1 day, 2 days, 3 days, 4 days, and 5 days. Mung bean sprouts were extracted using the soxhletation method and total phenolic content and total flavonoids content were measured. The highest total phenolic content of mung bean sprout was found on day 2 of germination with a total of 0.3676 mg GAE/gram extract. The highest total flavonoid content of mung bean sprout was found on day 3 of germination with a total of 1.1755 mg QE/gram extract.

Keywords: mung bean sprout, total phenolic content, total flavonoid content