

**PENGARUH PELARUT ETANOL 70% DAN METANOL TERHADAP  
KADAR TOTAL FLAVONOID PADA EKSTRAK DAUN SINGKONG  
(*Manihot utilissima* Pohl)**

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**INTISARI**

**Latar Belakang:** Flavonoid merupakan salah satu senyawa bioaktif yang memiliki berbagai aktivitas farmakologi. Daun singkong (*Manihot utilissima* Pohl) diketahui mengandung senyawa flavonoid. Upaya untuk memperoleh senyawa flavonoid adalah melalui ekstraksi. Dalam proses ekstraksi pemilihan pelarut sangat penting karena dapat mempengaruhi kadar total flavonoid yang diperoleh. Etanol 70% dan metanol merupakan dua pelarut yang banyak digunakan untuk mengekstraksi flavonoid, namun keduanya memiliki perbedaan dalam kemampuannya melarutkan senyawa flavonoid

**Tujuan Penelitian:** Mengetahui pengaruh pelarut etanol 70% dan metanol terhadap kadar total flavonoid ekstrak daun singkong (*Manihot utilissima* Pohl).

**Metode Penelitian:** Serbuk daun singkong diekstraksi menggunakan metode UAE dengan pelarut etanol 70% dan metanol (1:10) lalu dipekatkan dengan penangas air pada suhu 40°C. Ekstrak kental yang diperoleh dilakukan uji organoleptis, uji fitokimia dan uji kadar total flavonoid yang dinyatakan dalam mg QE/gram.

**Hasil Penelitian:** Hasil ekstrak metanol dan etanol 70% yang diperoleh memiliki bau khas dan berwarna hijau. Hasil skrining fitokimia menunjukkan ekstrak positif mengandung alkaloid, saponin, tanin dan flavonoid. Nilai total flavonoid ekstrak etanol 70% sebesar 4,234±0,058 mg QE/g. dan metanol sebesar 8,424±0,035 mg QE/g .

**Kesimpulan:** Pelarut etanol 70% dan metanol berpengaruh signifikan terhadap total flavonoid daun singkong (*Manihot utilissima* Pohl).

**Kata Kunci:** Daun singkong, *Manihot utilissima* Pohl, UAE, Total Flavonoid

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## EFFECT OF 70% ETHANOL AND METHANOL SOLVENTS ON TOTAL FLAVONOID LEVELS IN CASSAVA LEAF EXTRACT (*Manihot utilissima* Pohl)

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### ABSTRACT

**Background:** Flavonoids are one of the bioactive compounds that have various pharmacological activities. Cassava leaves (*Manihot utilissima* Pohl) are known to contain flavonoid compounds. Efforts to obtain flavonoid compounds are through extraction. In the extraction process, the choice of solvent is very important because it can affect the total levels of flavonoids obtained. Ethanol 70% and methanol are two solvents that are widely used to extract flavonoids, but both have differences in their ability to dissolve flavonoid compounds.

**Objective:** To determine the effect of 70% ethanol and methanol solvents on the total flavonoid content of cassava leaf extract (*Manihot utilissima* Pohl).

**Method:** Cassava leaf powder was extracted using the UAE method with 70% ethanol and methanol (1:10) as a solvent then concentrated using a water bath at a temperature of 40°C. The thick extract obtained was subjected to organoleptic tests, phytochemical tests and total flavonoid content tests which were expressed in mg QE/gram.

**Results:** The results of the 70% methanol and ethanol extracts obtained have a distinctive odor and are green in color. The results of phytochemical screening showed that the extract positively contained alkaloids, saponins, tannins and flavonoids. The total flavonoid value of the 70% ethanol extract was  $4.234 \pm 0.058$  mg QE / g. and methanol was  $8.424 \pm 0.035$  mg QE / g.

**Conclusion:** Ethanol 70% and methanol solvents had a significant effect on the total flavonoids of cassava leaves (*Manihot utilissima* Pohl).

**Keywords:** Cassava leaves; *Manihot utilissima* Pohl, UAE; Total Flavonoids

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