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**DETERMINATION OF TOTAL FLAVONOID LEVELS AND  
ANTIOXIDANT ACTIVITY TEST OF GALING FRUIT ETHANOL  
EXTRACT (*Cayratia trifolia* L.) USING THE ABTS METHOD**

**ABSTRACT**

**Background:** Antioxidants are substances that protect and stabilize cell damage caused by free radicals. Synthetic antioxidants derived from chemical synthesis have carcinogenic effects, so natural antioxidants are preferred. One natural antioxidant of choice is the galing fruit (*Cayratia trifolia* L.). The galing fruit is a wild plant known to contain various phytochemical compounds and has potential as a source of natural antioxidants.

**Research Objective:** To identify phytochemical compounds, total flavonoid content, and antioxidant activity in ethanol extracts of galing fruit (*Cayratia trifolia* L.).

**Research Methods:** This research employed experimental methods with both qualitative and quantitative approaches, including sample preparation, phytochemical screening, determination of total flavonoid content, and antioxidant activity using the ABTS method.

**Research Results:** Based on the results obtained, galing fruit (*Cayratia trifolia* L.) was found to contain flavonoids at a concentration of 49.60 mgQE/g, which has the potential as an antioxidant and exhibits antioxidant activity using the ABTS method, as indicated by an  $IC_{50}$  value of 40.49  $\mu$ g/ml, while the positive control quercetin had an  $IC_{50}$  value of 9.42  $\mu$ g/ml. These results indicate that galing fruit has sufficiently strong antioxidant activity and has potential for development as a source of natural antioxidant compounds.

**Keywords:** *Cayratia trifolia* L., total flavonoids, ABTS, antioxidant