

## ABSTRACT

### DETERMINATION OF TOTAL Flavonoid CONTENT OF RED BETEL LEAF *Piper crocatum* Ruiz & Pav) ETHANOL EXTRACT USING UV-VIS SPECTROPHOTOMETRY METHOD

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Red betel (*Piper crocatum*) is a type of plant that comes from the Piperaceae family and is widely distributed in Indonesia. Various studies have been conducted to determine the potential and efficacy of red betel leaves. This study aims to determine the total flavonoid content contained in 96% ethanol extract of red betel leaves using the UV-Vis spectrophotometry method using quercetin as a reference solution. In this study, red betel leaves were obtained from UPT Herbal Laboratory of Materia Medika, Batu Regency in the form of dry powder. Then extraction was carried out using the maceration method on red betel leaf powder using 96% ethanol solvent. The results of the extraction obtained red betel viscous extract. This viscous extract was then determined as total flavonoids using the UV-Vis spectrophotometry method. This process begins with determining the operating time to find the time needed to obtain a stable absorbance, then the results are obtained in the 16th minute. Furthermore, determining the maximum wavelength obtained a maximum lambda of 414 nm. Then, a standard standard solution is made with a concentration range of 60,70,80,90,100 ppm, and produces a regression equation  $y = 0.0062x - 0.0482$  with a correlation coefficient (r) of 0.9959. The viscous extract samples were then measured for their absorption using a UV-Vis spectrophotometer by entering the absorbance value into the linear regression equation. The results of this study indicated that the average total phenol content was  $43.3195 \pm 0.4460$  mg QE/g extract with a KV value of 1.0295%.

**Keywords:** Red betel, Ethanol extract, Total Flavonoids