

ABSTRAK
COMPARISON of METHODS and FENANTROLIN DPPH ANTIOXIDANT
DETERMINATION of TOTAL in SAMPLES SPINACH
(Amaranthushybridus L.), WATER SPINACH (Ipomoea reptans),
KATUK (Sauropusadrogynus (L)), andMANGKOKAN
(PolisciasScutellaria) bySPECTROPHOTOMETRY

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Research on the comparison of DPPH and Fenantrolin on the determination of the content of antioxidants in a sample of spinach (*Amaranthushybridus L.*), water spinach (*Ipomoea reptans*), katuk (*Sauropusadrogynus (l)*), and mangkokan (*PolisciasScutellaria*) has been performed. Statistical parameters used for the validation methods are: linearity, SDR, LoD, LoQ and percent recovery. Comparison of two methods used F-test and t-test. Total antioxidant content in samples of spinach, kale, katuk, and mangkokan with DPPH, respectively for (1.5245; 1.4181; 4.6573; and 0.8898) mg / g DW while testing method consecutive Fenantrolin by (7.0307; 13.7480; 44.8386; and 6.8236) mg / g DW. Both methods have the r value of 0.9966 and 0.9955. LOD value of each method (0.0054 and 0.0551) mmol / L, while the value of each method LOQ (0.0180 and 0.1837) mmol / L. Based on the value of the SDR and recovery both valid method for the determination of total antioxidant content in a sample of spinach, kale, katuk, and mangkokan. F test showed that both methods have a significantly different accuracy with a more thorough method is DPPH seen from the SDRnya. The t-test showed that both the results obtained have on average significantly different.

Keywords: DPPH, Fenantrolin method, and antioxidant