ANTIOXIDANT PROPERTY OF ANTHOCYANIN FROM *MALATINTA* (*Phyllanthus reticulatus* Poir.) FRUITS OBTAINED BY STATIC AND MICROWAVE-ASSISTED EXTRACTION

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ABSTRACT

Fresh fruits of *Phyllanthus reticulatus* Poir. were analyzed for anthocyanin by spectrophotometric method. The antioxidant activity using 1,1-diphenyl-2-picrylhydrazyl (DPPH) free radical scavenging activity (FRSA) and reducing power (RP) through $FeCl_3$ assay were determined. The use of two extraction processes, namely, the static method and microwave-assisted extraction, using two extraction solvents, acidified methanol and aqueous ethanol (1:1) were compared.

The total anthocyanin content (TAC) of *P. reticulatus* fruit was highest in extract using static method of extraction in acidified methanol solvent (279.94 ±17.31 mg/100g), comparable to levels found in plants rich in anthocyanins. (e.g., berries genotypes, grapes and red cabbages). In microwave-assisted extraction, TAC using acidified methanol was higher (278.01 ± 18.76 mg/100g) compared to using aqueous ethanol (210.96 ± 2.02 mg/100g). *P. reticulatus* fruits exhibited high antioxidant activity as revealed by its RP and DPPH FRSA results when compared to ascorbic acid.

These findings highlight the usefulness of *P. reticulatus* as a source of anthocyanins with good antioxidant properties, which, in turn, gives importance to the undervalued and underutilized plant.