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Variations in Phenolics, Flavonoids and Antioxidant Activity of *Melia azedarach* from Two Locations

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Abstract—*In the present study the oil was extracted from the powdered seed kernals with petroleum- ether (60-80°) was used as extracting solvent for 8 hrs. by Soxhlet method. This phenolic extracts of crude oil were used to evaluate total phenolics content, flavonoids content, total tocopherol, carotenoid content and free radical scavenging activity by DPPH method for two locations. Total phenolics content were (26.5±0.4, 28.7±0.3mgGAE/g), flavonoids content were (3.5±0.4, 3.5±0.3mg CAE/g), total tocopherol were (4.3±0.2, 3.4±0.2mg/g), carotenoids content were (5.6±0.3, 5.4±0.2mg/kg), and antioxidant activity having EC_{50} value (0.038±0.0, 0.045±0.0mg/ml). The following nutritional composition of seed kernals of Bakain (two locations): oil contents were (33.2±0.2% to 37.7±0.4%), moisture (6.3±0.1%, 6.6±0.1%), crude protein (22.7±0.2%, 23.1±0.1%), crude fibre (3.4±0.3%, 3.7±0.1%), ash content (7.3±0.1%, 7.1±0.4), carbohydrates (27.1±0.7%, 21.8±0.5) and energy value (2081.6±2.2, 2171.1±2.8kj/100g).*

Keywords*: Melia azedarach, phenols, flavonoids tocopherol, carotenoids and antioxidant activity.*