COMPOSITIONAL INVESTIGATION OF PHYTOCHEMICAL AND ANTIOXIDANT PROPERTIES OF VARIOUS PARTS OF *MORINGA OLEIFERA* PLANT

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ABSTRACT

In view of the nutritional and the medicinal importance of *Moringa oleifera* Plant (Horseradish or Drumstick tree popularly called Ewe-igbale in Yoruba Language). The present study was carried out to investigate the phytochemical and antioxidant properties of the various parts of the *Moringa oleifera* plant. The *Moringa oleifera* plant used in this work was obtained from Afao- Ekiti, Ekiti state, Nigeria. The results of phytochemical screening revealed that saponin, terpenoid, steroid and flavonoid were present in all the parts of the plant. Phlobatamin was observed to be absent in all parts of the plant. Alkaloid and tannin were observed in the moringa root as tannin was also observed in the leaf and cardiac glycosides were present in the seed and leaf of the plant. The antioxidant properties showed that total flavonoid, total phenol, iron reducing antioxidant property (FRAP), vitamin C and the free radical scavenging ability against 1,1-diphenyl-2 picrylhydrazyl (DPPH) were evidenced in all the parts of the moringa plant. The results however showed that the various parts of the plant contained varying amounts of phytochemicals and antioxidant properties of medicinal importance.

Keywords: Phytochemical contents, Antioxidant properties, Distribution, *Moringa oleifera.*