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# Antioxidant potency in seeds of selected *Vigna unguiculata* varieties of Sri Lanka

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Recently, more attention has been paid towards promotion of nutraceuticals to ensure wellbeing of humankind. *Vigna unguiculata* (cowpea) is a legume crop cultivated in rural areas of Sri Lanka, and the objective of the current study was to compare the antioxidant potency of different cowpea varieties grown in Sri Lanka. Seed samples of four local varieties, i.e. Waruni, Dahawala, MICP 01 and Bomaby were collected from Field Crops Research and Development Institute of Sri Lanka and aqueous extracts were prepared by maceration. The antioxidant potency of seed samples were evaluated by DPPH radical scavenging assay (DPPH), ferric reducing antioxidant power assay (FRAP) and the nitric oxide scavenging assay (NO) using standard methods. In addition, the total phenolic (TPC) and total flavonoid content (TFC) were estimated. The highest DPPH radical scavenging activity was exhibited by MICP 01 variety (32.62 ± 0.42%), while maximum NO scavenging activity was shown by the Dahawala variety (0.689 ± 0.013 mg of gallic acid/g of extract). Dahawala (1.204 ± 0.008 mg of ascorbic acid/g of the extract) and Waruni (1.182 ± 0.019 mg of ascorbic acid/g of the extract) varieties demonstrated comparatively higher FRAP. Dahawala (0.499 ± 0.012 mg of quercetin/g of extract) seed sample indicated a significantly ($p<0.05$) higher TFC compared to other samples. Waruni (1.768 ± 0.015 mg of gallic acid/g of extract) and MICP 01 (1.628 ± 0.005 mg of gallic acid/g of extract) varieties showed the highest TPC. The current study revealed that the seeds of different local varieties of *V. unguiculata* exert different levels of antioxidant potency by the action of various secondary metabolites.

**Keywords:** Antioxidant, Legumes, *Vigna unguiculata*

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