Maisuthisakul, P.

**Antioxidant potential and phenolic constituents of mango seed kernel from various extraction methods**


Faculty of Science, University of the Thai Chamber of Commerce, Bangkok 10400, Thailand

**Abstract**

The antioxidant properties of Mango (Mangifera indica cultivar Chok-Anan) seed kernel (MS K) extracted by various extraction (shaking, refluxing, acid hydrolysis) methods were examined by applying 1, 1-diphenyl-2-picrylhydrazyl (DPPH) and 2, 2-azino-bis (3-ethylbenzthiazoline-6-sulfonic acid) (ABTS+) radical-scavenging assays and antioxidant activity using the ferric thiocyanate test (FTC). All three methods proved that extraction methods affected the antioxidant potential of MSK extracts. The antioxidant capacity of the acid hydrolysis extract had the highest value and was significantly (P < 0.05) higher than that of α-tocopherol, which is the commercially used natural antioxidant. Their phenolic composition (saponin, flavonoids, anthraquinones and tannins) and total phenolic content were also determined. The total phenolic content of MSK from different extraction methods varied between 90.03 and 285.70 mg of tannic acid equivalents per gram dry weight of product. Both flavonoids and tannins were major contributors to the phenolics in MSK. This research suggests that the extract has potential as a natural antioxidant.

**Author Keywords**

Antioxidant; Mango; Phenolic; Seed kernel

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