

Antioxidant potential and physiochemical properties of seed kernels and oil of *Melia azedarach* of two locations

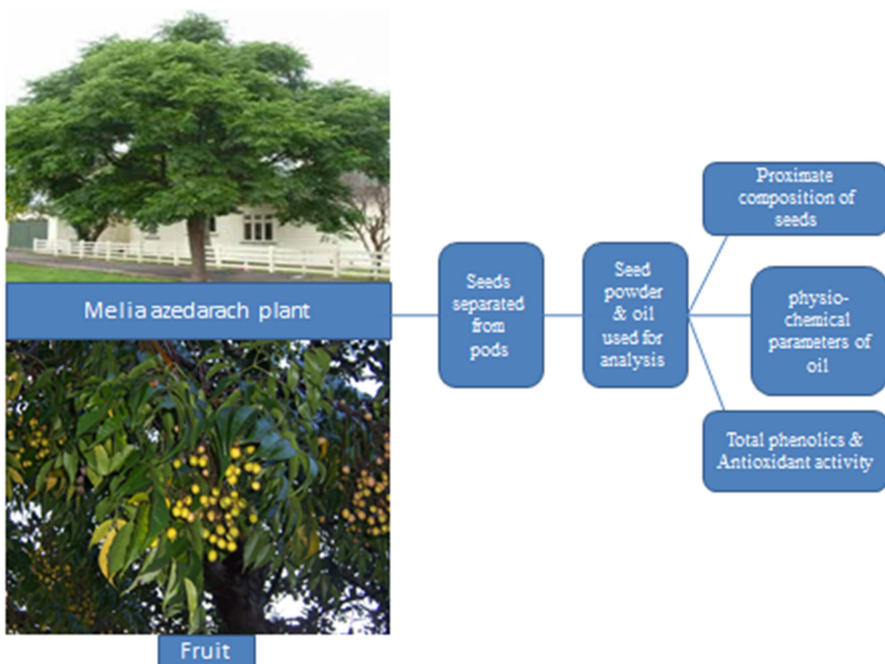
MUKHAN WATI* AND M. K. DEEN

Department of Chemistry

Chaudhary Charan Singh Haryana Agricultural University

Hisar – 125004, Haryana

Email id: mukhandagar88@gmail.com



Abstract

In the present study the phenolic extracts of crude oil and methanol extracts of defatted seed cake were used to evaluate total phenolics content, flavonoids content, total tocopherol and free radical scavenging activity by DPPH method for two locations. Total phenolics content were highest in oil content $28.7 \pm 0.3 \text{ mgGAE/g}$ (Hisar), flavonoids content and total tocopherol were highest in methanol extract of defatted seed cake $4.2 \pm 0.1 \text{ mgCAE/g}$ & $26.5 \pm 0.4 \text{ mg/g}$ in Palwal location. The antioxidant activity having IC_{50} value which is highest in oil content $0.045 \pm 0.0 \text{ mg/ml}$ (Hisar). The fatty acid composition of oil were: palmitic acid ($5.9 \pm 0.4\%$, $7.5 \pm 0.6\%$), stearic acid ($2.9 \pm 0.4\%$, $0.8 \pm 0.3\%$), oleic acid ($15.1 \pm 0.2\%$, $16.0 \pm 0.1\%$) and linoleic acid ($75.5 \pm 0.3\%$, $74.0 \pm 0.6\%$).

Keywords: *Melia azedarach*, total phenolics, physiochemical properties.