

Total Phenols, Total Flavonoids Contents and Free Radical Scavenging Activity of Seeds Extracts of Lawsonia alba (henna) from Algeria

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Abstract : Lawsonia alba (Henna) is widely used in folkloric medicinal for a treatment of various skin diseases such as Eczema (atopic dermatitis), boils and sores. The aim of the present study is to determine the antioxidant activity, total phenolics, flavonoids, and condensed tannins content of extracts from the seeds of Lawsonia. alba grown in Algeria and selected from three different regions (Adrar, Biskra, and Ouargla). Total phenolics content ranged from $68,42 \pm 0,54$ to $88,31 \pm 0,78$ mg gallic acid equivalents (GAE)/g dry weight, the flavonoids content varied from $1,13 \pm 0,0035$ to $1,367 \pm 0,002$ mg quercetin equivalents (Q)/ g dry weight and condensed tannins ($14,47 \pm 0,138$ to $25,50 \pm 0,076$ mg catechin equivalents (CE)/g dry weight). The antioxidant activities of the extracts were evaluated by DPPH assay. The results showed that all extracts from the seeds of Lawsonia. alba seem to be good trappers of radicals, the IC50 values of the extracts ranged between 0,00826 and 0,01 g/l.

Keywords : antioxidant activity, Lawsonia. alba, phenolic compounds, seeds

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