

CHEMICAL COMPOSITION AND ANTIOXIDANT ACTIVITY OF LIPIDS FROM *FICUS CARICA* L. FRUIT

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Abstract. Oils from seven *Ficus carica* L. fruits from Algeria were investigated through determining their chemical characteristics, quantifying sterols and tocopherols, analyzing their fatty acids profiles and evaluating antioxidant activity assessed by 1,1-diphenyl-2-picrylhydrazyl (DPPH) antioxidant activity and total antioxidant activity (TAA). Results show that acid values ranged from 3.14 to 6.95 mg KOH/g signifying the high amount of free fatty acids in fig's oils. Neutral lipids occupy a very important proportion of the crude extract compared to glycolipids and phospholipids. The major unsaturated fatty acids of different lipid classes were linoleic (11.70-34.74%) and linolenic (1.15-35.27%), while the main saturated fatty acids was palmitic. The tocopherols and sterols contents in total lipids ranged from 14.27 to 108.55 mg/g for total lipids and 0.36 to 2.80 mg/g respectively. Results of antioxidant activities demonstrated for the first time that the studied oils possessed good antioxidant activity which may be associated with their alleged health benefits.

Keywords: oil extract, fatty acid, tocopherol, sterol, antioxidant activity.