parts samples collected on September 13. The weakest antiradical activity *in vitro* (16.1 ± 2.57 μmol TE/g DW) was determined in extracts of *C. erythraea* aerial parts samples collected on July 15.

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NUTRACEUTICAL POTENTIALITIES OF TUNISIAN ARGAN OIL BASED ON ITS PHYSICOCHEMICAL PROPERTIES AND FATTY ACID CONTENT AS ASSESSED THROUGH BAYESIAN NETWORK ANALYSES

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Introduction. Argan oil is traditionally produced by cold pressing in South-western Morocco where rural population uses it as edible oil as well as for its therapeutic properties which give them in counterpart valuable income. Given the economical interest of this oil, several attempts of fraudulency have been registered in the world global market leading to loss of authenticity. Our purpose is to launch a program of Tunisian Argan oil valorization since trees from this species have been introduced sixty years ago in Tunisia. The first step was thus to characterize the physicochemical properties and determine the chemical composition of Tunisian Argan oil in order to assess its quality.

Materials and methods. Physicochemical parameters of oil quality were determined according to the international standard protocols. Fatty acid content analysis of Argan oils was performed by gas chromatography coupled to mass spectrophotometry. A comparative study was realized among Tunisian, Moroccan and Algerian samples differing also by their extraction procedure. The impact of geographical localisation on the fatty acids composition was studied by statistical and modeling Bayesian analyses [1-3].

Results and their discussion. Physicochemical parameters analysis showed interestingly that Tunisian Argan oil could be classified as extra virgin oil. Argan oil is mainly composed by unsaturated fatty acids (80%), mainly oleic and linoleic acid

(linoleic acid was positively influenced by the geographical localization (r = 0.899, p = 0.038) and the P/S index (r = 0.987, p = 0.002)) followed by saturated fatty acids (20%) with other beneficial compounds from the unsaponifiable fraction like polyphenols and carotenoids. Together with fatty acid content, these minor components are likely to be responsible for its nutraceutical properties and beneficial effects.

Tunisian Argan oil displayed valuable qualitative parameters proving its competitiveness in comparison with Moroccan and Algerian oils, and could be therefore considered as extra virgin edible oil for nutraceutical purposes as well as for cosmetic use.

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TRITERPENOIDS FROM ARGANIA SPINOSA: 20 YEARS OF RESEARCH

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Introduction. The argan tree (*Argania spinosa L.*) Skeels, family Sapotaceae} is exclusively endemic in southwestern Morocco [1]. This tree is largely known for its precious kernels from which argan oil is extracted. Whereas the argan forest was considered strongly endangered some years ago, nowadays it receives the special attention it deserves through a vast sustainable development program that is based on a single product: argan oil [2]. The success encountered by edible and cosmetic argan oil is indisputable and is due to its unique organoleptic, pharmacological, and dermatologic properties [3-5]. Consequently, the Amazigh diet that uses argan oil as a lipid source [6] is becoming almost as popular as the Mediterranean diet that uses olive oil. Regretfully, the present world-wide fame of argan oil has partially dwarfed the initial intensive work carried out on argan triterpenoid saponins. This family of molecules represented, for a while, the most likely output to rescue successfully the argan forest. Indeed, saponins are endowed with so many pharmacological and biological properties [7] that any plant of the family Sapotaceae can be considered of interest for those trying to discover new pharmacological leads. Preliminary and encouraging results [8, 9] quickly triggered the systematic analysis of argan saponins. Even though these compounds are not being investigated as intensively as they were some years ago, the need to diversify argan forest resources is sufficient to