FATTY ACID COMPOSITION OF *SALVIA* SEED OIL: A POTENTIAL SOURCE OF OMEGA-3 AND OMEGA-6 FATTY ACIDS FOR NUTRITIONAL SUPPLEMENTS

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Salvia L., is one of the largest genus of the family Lamiaceae. This genus are includes nearly 900 species which are species of which spread throughout the world [1]. In the flora of Iran, the genus is represented by about 58 species of which 17 are endemic [2]. A very limited number of investigations for fatty acid patterns have been reported in this genus. Persent survey was preformed on six species of *Salvia* (*S. atropatana* Bunge, *S. chorassanica* Bge., *S. nemorosa* L., *S. sclarea* L., *S. spinosa* L., *S. virgata* Jacq.) growing in different regions of Iran. Seed oils were extracted using n-hexane as solvent in a Soxhlet apparatus. The fatty acid compositions were determined by GC and GC-MS as methyl ester derivatives after transmethylation reaction. The range of total oil content varied between 18.84% in *S. chorassanica* to 35.21% in *S. sclarea*. Fatty acid (FA) analysis revealed that α-linolenic (C18:3n3) (38.89-50.75%) linoleic (C18:2n6) (13.04-26.70%), and oleic (C18:1n9) (10.79-23.20%) were the main unsaturated FA. Palmitic (C16:0) (3.50-7.93%), and stearic acid (C18:0) (1.82-2.59%) is also the main saturated FA. There were significant differences between fatty acid profiles of samples based on n-3 (30.99-51.96%) and n-6 (13.46-26.98%) fatty acid concentrations. Due to its composition, *Salvia* oil might compete successfully with falx and other plant oils as a source of α-linolenic fatty acid in industrial and dietary applications.

References

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