

Evaluation of Phytochemical and Fatty Acids Content and Composition in Iranian Borage (*Echium amoenum*) in Different Habitats of Iran

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Abstract : Iranian Gole GavZaban (*Echium amoenum* f. *ch. & meyeri*), is one of the most important medicinal plants in the north of Iran. Its dried petals are used as a tonic, tranquilizer, diaphoretic, cough suppressant and a remedy for sore throat in traditional Iranian medicine. This study reports the analysis of phytochemicals and seed oil of *Echium amoenum* in different habitats and accessions of Iran. The results showed that the oil content of seeds was 36% and eleven fatty acids were identified and quantified by gas chromatography (GC). The major fatty acids were α -Linolenic acid (39.99%), Linoleic acid (20.86%), linolenic acid (20%) and Oleic acid (15.36%) respectively. The amount of phenols, tannins, flavonoids and anthocyanins increased with increasing altitude, and the highest rates of these compounds were observed at an altitude of 2125 meters in the highest accession.

Keywords : accession, phytochemical, oil components, Iranian borage

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