

Rec. Agric. Food. Chem. 4:SI (2024) OP:44-44

## records of agricultural and food chemistry

## Chemical Contents and Activities of Some Commonly Consumed Origanum L. (Lamiaceae) Species\*

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The genus *Origanum* L. is a well-known genus of the Lamiaceae, and species of this genus are used as spices or herbal teas around the world. The genus contains 42 species and is mainly distributed in the Mediterranean, Euro-Siberian and Iranian-Siberian regions. [1]. Turkey is an important genetic centre of diversity of the genus, which comprises 21 species with three subspecies (24 taxa) and 13 hybrids, of which 25 are endemic [2]. In Turkey, *Origanum*, *Satureja*, *Thymbra*, *Thymus*, and *Coridothymus* species, belonging to the Lamiaceae family, are known as thyme "kekik". Among these species, *Origanum* is the most widely cultivated and traded species and is commonly used as thyme, especially *Origanum onites* (İzmir kekiği, bilya kekik), *O. vulgare* (Istanbul kekiği) and *O. majorana* [3]. This study aimed to investigate the biological activity and chemical content of the most used *Origanum* species *O. onites*, *O. vulgare* ssp. *vulgare*, *O. vulgare* ssp. *hirtum*, *O. vulgare* ssp. *viride*, *O. majorana*, *O. syriacum*, *O. bilgerii*, *O. munitiflorum* by scanning publications (PubMed/Web of Science/Scopus, 20.2.2021). These different reported activities showed that *Origanum* species are important medicinal plants and herbal treatments for several therapeutic indications.

Keywords: Origanum; activity; secondary metabolites; phenolics; essential oil.

## References

- [1] S.Çarıkçı, A.C. Gören, T. Kılıç, Z. Özer, T. Arabacı and W.N. Setzer (2021). Biological activities of *Origanum* L. (Lamiaceae), in: "*Oregano*" The genus *Origanum* (Lamiaceae)taxonomy, cultivation, chemistry, and uses, *ed*: Tuncay Dirmenci, Nova Science Publishers, New York, USA, pp.287-403.
- [2] Z. Özer, S. Çarıkçı, H. Yılmaz, T. Kılıç, T. Dirmenci and A.C. Gören (2020). Determination of secondary metabolites of *Origanum vulgare* subsp. *hirtum* and *O. vulgare* subsp. *vulgare* by LC-MS/MS. *J. Chem. Metrol.* 14, (1) 25-34.
- [3] Ç. Bozdemir (2019). Economic importance and usage fields of *Oregano* species growing in Turkey. *YYU J. Agri. Sci.* **29**, **(3)**, 583-594.

<sup>\*</sup> The larger part of the study was published as a chapter in: "Oregano" The genus *Origanum* (Lamiaceae) Taxonomy, Cultivation, Chemistry, and Uses, Editor: Tuncay Dirmenci.

