



The Research of Antioxidant Activity of the Endemic Species of *Onopordum Anatolicum*

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As is the case elsewhere in the world, Turkish people have long utilized plants as remedies, food, fuel, and dye, as well as for furniture, ornamentation, agricultural tools, and construction materials. *Onopordum* is a valuable medicinal plant that is widely used in traditional medicine in Europe. The application of *Onopordum* as food is limited and its main importance is due to medicine utilization. Because of having flavonoid compositions, *Onopordum* is an important plant. The Genus *Onopordum* L. (Asteraceae) includes about 38 species. The representatives of the genus are native to Europe, Northern Africa, the Canary Island, the Caucasus, Southwest and Central Asia. In Turkey, this genus is represented with 20 species, 6 of which are endemic. *Onopordum* (cotton thistle, also known as Scots or Scotch thistle) species are biennials herbaceous plants with branched, spinose winged stems. They have application in medical practice as a bactericide, cardiogenic, and hemostatic agent and are used against hypotonicity. In this study antioxidant activities of ethanol, methanol, acetone and benzen extracts of some endemic *Onopordum anatolicum* (Boiss.) Boiss. & Heldr. ex Eig seeds which are in Denizli were examined. DPPH and β -carotene-Linoleic acid methods were used in order to determine the antioxidant activity. The highest antioxidant activity (77%) was seen in the extract which is obtained by using methanol catalyst. The lowest activity of antioxidant of the extracts is acetone (5%). In terms of impact, the strength of antioxidant depends on the phenolic amount of it. For that purpose, *O. anatolicum* total phenolic content was calculated in terms of mg/ml gallic acid in the experiment performed by using Folin-Ciocalteu method. According to these values, the highest amount of phenolic compounds are in methanol and the lowest amount of phenolic compounds are in benzen. According to the results of the experiment performed by using DPPH method, it is obvious that the free radicals in the environment has the ability of sweep. The increase in the concentration of all extracts leads to an increase in the activity of elimination of free radical.

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