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PHENOLIC COMPOUNDS EVALUATION OF SOME GLOBE ARTICHOKE [*CYNARA CARDUNCULUS* VAR. *SCOLYMUS* (L.) FIORI] CULTIVARS BASED ON LEAF POSITION AND DIFFERENT MONTHS

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Abstract

In recent years, the use globe artichoke [*Cynara cardunculus* var. *scolymus* (L.) Fiori] heads have increased in the pharmaceutical field and the active ingredient of many herbal medicines but globe artichoke leaves are considered as waste material, thrown away to nature, resulting with environmental pollution, in some countries. The present study is, thus, conducted to evaluate the phenolic compounds in the leaves of two globe artichoke cultivars as well as their change in different months. Globe artichoke leaves were harvested monthly, according to their positions as inner and outer (young and mature leaves, respectively). Leaf samples were dried and extracted using 70% methanolic extraction solvent and quantitatively analyzed at HPLC-DAD. Findings revealed that there were differences between cultivars and leaf positions as inner and outer and also among different months in terms of content of bioactive components. Flavonoid levels in February were quite promising, while in terms of other phenolic compounds December and January were prominent. Regarding the leaf positions, high flavonoid levels were dominant in inner leaves. The findings of the study can be beneficial for using globe artichoke leaf content in nutraceutical and pharmacological applications due to high level of phenolics they have and should not be treated as waste material.

Keywords: *Cynara cardunculus* var. *scolymus*, globe artichoke, leaf, polyphenols, waste

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