

Abstract

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PHARMACEUTICAL FACULTY IN HRADEC KRÁLOVÉ

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Title of the Diploma thesis: FENOLIC ACIDS IN PLANTS

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Phenolic acids belongs between secondary metabolites, which are part of fruits, vegetables, cereals and other plants of different families. For example, it can be plants of family Lamiaceae, Asteraceae and Ericaceae, which contain significant amounts of these substances. In plants phenolic acids play an important role and they have many human health-promoting effects including antioxidant, anti-inflammatory, antiviral, antibacterial, antifungal, anticancer activity and other. Plants containing phenolic acids are preferably also used as antidiabetics, expectorants, insecticides, hypolipidemics, cardioprotective and neurological compounds, etc.

The content of these compounds in plants may be different according to monitored cultivar, the place of growth, the time of harvest and many other aspects.

Presence, identification and subsequent quantification of individual phenolic acids are usually done through the HPLC and MS methods and total content of these compounds is determined through the Folin-Ciocalteu method.

The diploma thesis is a literature review, which follows content of phenolic acids in plants with respect to their pharmacological effects, which may have beneficial effect on the human organism.

Keywords: phenolic acids, plants, content, effects, identification, quantification