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TOTAL PHENOLIC CONTENT AND ANTIOXIDANT ACTIVITY OF SOME AROMATIC HERBS USED IN TRADITIONAL ROMANIAN CUISINE

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Abstract. *Lovage (Levisticum officinale), parsley (Petroselinum crispum), tarragon (Artemisia dracunculus) and thyme (Satureja hortensis) extracts were obtained in 60% ethanol. Total phenolic content (TPC) was determined using the Folin-Ciocalteu phenol reagent method. Antioxidant activities of the extracts were evaluated by 2,2-diphenyl-1-picrylhydrazyl (DPPH▪) free radical-scavenging ability and ferric-reducing antioxidant power (FRAP) assay. The hydroalcoholic extract obtained from Satureja hortensis had the highest total phenolic content and the highest antioxidant activity. A significant and positive high Pearson's correlation between TPC and DPPH▪ assay and between TPC and FRAP assay respectively was observed for all plant extracts. The results indicated that phenolic compounds were the main contributor to antioxidant activity in the investigated aromatic herb extracts).*

Keywords: aromatic herbs, total phenolic content, antioxidant activity

1. Introduction

Aromatic herbs used in Romanian cuisine are herbaceous (leafy) plants that add flavour and colour to all types of meals. Aromatic herbs represent an important source of biologically active compounds, such as phytochemicals and phytoalexins, recognized for their beneficial health effects, and thus have also been used in folk medicine. Both phytochemicals and phytoalexins are made of simple phenolics and polyphenolics, which are known as bioactive compounds responsible for the antioxidant activity in plants, besides some vitamins (A, C and E) [2]. Phenolics are compounds that contain at least one hydroxyl group (-OH) attached to an aromatic ring. Phenolic compounds are ubiquitous components of plants and herbs that act as reactive oxygen species (ROS)/reactive nitrogen

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