

The concentration of flavonoids and polyphenols was calculated from a standard curve plotted with known concentration of rutin and gallic acid.

**Conclusions.** There is a need for further chemical study of plant materials *Hyperici flores* and *Hyperici semina*, therefore, these parts of the plant can be used as future vegetal products.

**Key words:** *Hypericum perforatum*, polyphenols, flavonoids, seeds.

#### 426. VEGETAL PRODUCTS WITH HYPOCHOLESTEROLEMIC ACTIVITY

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**Introduction.** Cholesterol is a waxy, fat-like substance that's found in all the cells in our body. The body needs some cholesterol to make hormones, vitamin D, and substances that help in digesting. High-density lipoprotein (HDL), sometimes called „good cholesterol” carries cholesterol from other parts of the body back to the liver. HDL has been shown to have a variety of functions that may contribute to its cardiovascular protective effects, including the promotion of macrophage cholesterol efflux, anti-inflammatory, and antioxidative effects. Low-density lipoprotein (LDL) called „bad cholesterol” in a high level leads to the buildup of plaque in the arteries. LDL has now largely replaced total cholesterol as a risk marker and the primary treatment target for hyperlipidemia.

**Aim of the study.** The selection of vegetal products with hypocholesterolemic activity in light of the chemical compounds and usage in medicine.

**Materials and methods.** Analysis of bibliographical data concerning the selected vegetal products, and their products with hypocholesterolemic activity according to the chemical compounds.

**Results.** Medicinal plants can be used for the treatment and prevention of hyperlipidemia in conjunction with lifestyle changes. From medicinal plants with hypocholesterolemic activity, we mention those rich in polyholosides – *Lini semina* (*Linum usitatissimum* L.) with Detoxi Plus product; *Laminariae stipites* (*Laminaria saccharina* L.) with Laminarie, VD, Lamivit, No-Colest; steroid saponosides: *Dioscoreae rhizomata cum radicibus* (*Dioscorea nipponica* Makino) with Polisponinum and Diosponinum; bitter substances – *Taraxaci radices*, *T. herba*, *T. folia* (*Taraxacum officinale* L. Weber ex F.H.Wigg) with Antitox, Detoxiphyt, Normoponderol, and polyphenol compounds – *Cynarae folia* (*Cynara scolymus* L.) with Cholesterin products and *Cichorii herba* (*Cichorium intybus* L.) with Cortelax and Rhamnolax.

**Conclusions.** Medicinal plants can serve as accessible sources in the treatment of hypercholesterolemia due to vegetal products rich in polyholosides, steroid saponosides, bitter substances, and polyphenol compounds.

**Key words:** vegetal products, hypocholesterolemic activity.

#### 427. THE TOTAL POLYPHENOL CONTENT IN AERIAL PARTS AND ROOTS OF *BERTEROA INCANA* L.

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**Introduction.** According to the bibliographic data, in the aerial parts of the *B. incana* L. species, there are various chemical compounds: apigenin, luteolin dihydroquercetin, gallic acid, neochlorogenic acid, due to which the plant material possesses antibacterial, spasmolytic and hypotensive properties. The plant is toxic due to its alkaloid content.

**Aim of the study.** Spectrophotometric determination of total phenolic and flavonoid content in plant materials *B. incanae herba* and *B. incanae radices*.

**Materials and methods.** Plant materials were collected from spontaneous flora in different periods (june, september, november). Dosage of total flavonoid and polyphenol was performed by the spectrophotometric method, using 70% ethyl alcohol as solvent. Optical density was measured at *Metertech* UV / VIS SP 8001 spectrophotometer at wavelengths 400 and 760 nm.

**Results.** The total phenolic contents (TPC) of hydroethanolic extracts of sp. *B. incana* L. were determined according to the *Folin–Ciocalteu* procedure and it were expressed as gallic acid equivalents; flavonoid contents were expressed as luteolin equivalents. Extracts from the aerial parts had higher total phenol and flavonoid contents than roots extracts. The highest level of total flavonoid content was determined in the aerial parts collected in june (0,30%), followed by the plant material collected in september (0,273%) and then in november (0,16%). The major content of flavonoids in roots was found in plant material collected in september (0,11%), followed by november (0,03%) and then in june (0,01%). The TPC was found to be the highest in aerial parts collected in june (8,02%), followed by september (6,80%) and november (5,74%). In the case of roots of sp. *B. incana* L., the highest level of TPC was found in samples collected in september (4,80%), followed in june (2,77%) and then in november (2,54%).

**Conclusions.** The significant differences in total phenolic content were found between aerial parts and roots of sp. *B. incana* L. The lowest flavoids and phenol level were determined in roots. It was proved that the collection period of plant materials influence the quantitative content of the phenolic compounds.

**Key words:** *Berteroa incana*, polyphenols, flavonoids.

## 428. HOMEOPATHIC PRODUCTS CONTAINING ALKALOIDS

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**Introduction.** Alkaloids are one of the largest groups of secondary metabolites in plants, which have basic nitrogen-containing heterocyclic compounds, which in physiological doses have therapeutical effects on the body and in high doses are toxic, this is why there are many products with alkaloids in homeopathic medicinal products. Some practitioners claim that homeopathy works by stimulating the body to heal itself.

**Aim of the study.** Evaluation of medicinal plants and vegetal products containing alkaloids (pyrrolizidine, tropane, quinolizidine, isoquinoline, nicotine, indole, acyclic) and their homeopathic medicinal products.

**Materials and methods.** The analysis of scientific literature regarding to the medicinal plants containing alkaloids using the databases: *eLibrary*, *PubMed*, *ResearchGate* (20 sources). It was evaluated vegetal products and their homeopathic medicinal products with alkaloids following the State Nomenclature of Medicines from Republic of Moldova.