

DETERMINATION OF QUANTITATIVE CONTENT OF THE DIFFERENT GROUPS OF PHENOLIC COMPOUNDS IN THE SERIES *FRAXINUS EXCELSIOR* LEAVES

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Introduction. *Fraxinus excelsior* belongs to the olive family, which contains 30 genera and approximately 600 species. This plant can be found both in the wild and in a cultivated state in Ukraine. *Fraxinus excelsior* is widely used in traditional medicine due to rich chemical composition. All raw materials of this plant: leaves, bark, fruit, stems, wood and roots are used in traditional medicine. Groups of phenolic compounds, that included in leaves have tonic, neuroprotective, anti-depressant, anxiolytic, immunomodulating, hepatoprotective, antioxidant effects.

Aim. Establishing of quantitative content of the amount of the different groups of phenolic compounds in the series *Fraxinus excelsior* leaves.

Materials and Methods. There have been investigated 5 series of leaves, that we were harvesting during 2015-2016 years in the Kharkiv, Poltava, Vinnytsia, Zaporizhia and Lviv regions. The content of the phenolic compounds amount has been determined by spectrophotometric method in terms of a gallic acid, the content of the hydroxycinnamic acids amount has been determined by spectrophotometric method in terms of chlorogenic acid. To establish of quantitative content of the flavonoid glycosides amount has been used by spectrophotometric method that based on the usage of aluminum chloride in terms of a rutin. The content of the tannins has been determined by complexometric titration in terms gallotannin.

Results and discussion. There have been established the content of the of phenolic compounds amount in the series *Fraxinus excelsior* leaves, that is at least $6,50 \pm 0,29\%$, in terms of absolute dry raw materials. There have been established content of the hydroxycinnamic acids amount in 5 series *Fraxinus excelsior* leaves – at least $2,88 \pm 0,01\%$. All series leaves contained at least $0,87 \pm 0,01\%$ of the amount of flavonoids. There have been established quantitative tannins in 5 series leaves was at least $0,18 \pm 0,01\%$.

Conclusions. There have been conducted quantitative determination of the contents of phenolic compounds: the phenolic compounds amount, the amount of hydroxycinnamic acids, the amount of flavonoids and tannins in 5 series *Fraxinus excelsior* leaves. There have been set lower limits content of each group. There have been choose standardization option of raw materials *Fraxinus excelsior* leaves, that we propose to standardize the content of phenolic compounds in amounts based on gallic acid.