

# AS FOR THE PROSPECTS OF GROWTH IN UKRAINE HERBS THAT CONTAIN SAPONINS

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**Introduction.** Medicines that contain saponins is often used in medicine. They are found in 900 species of plants belonging to 90 families. Saponins have mucolytic properties, so they are used in a dry and prolonged cough. Some saponins are diuretics, other tone up central nervous system or detect antihypertensive, anti-inflammatory and antimicrobial effects. In Ukraine, the largest demand is with species that contain saponins: : *Astragalus dasyanthus* Pall., *Eryngium campestre* L., *Helianthus annuus* L., *Inula helenium* L., *Nepeta cataria* L., *Oplopanax elatus* (Nakai) Hara, *Paeonia anomala* L., *Phlomis tuberosa* L., *Potentilla alba* L., *Pulmonaria officinalis* L., *Thalictrum foetidum* L., some of which are as autochthonous as adventitious species.

The **aim** of our work was to study the environmental conditions for the growth of species that contain saponins and analysis of the prospects for their growth in different regions of Ukraine.

**Results and discussion.** A large number of native species is drought-resistant and photophilous that leads to their growth in the plains of the Ukraine. *Astragalus dasyanthus* is species listed in the Red Book of Ukraine, it is heliofit and xerophyt. It occurs in forest-steppe and steppe regions in the north among the remnants of steppe vegetation. In Ukraine it is widespread mainly in the Middle Dnieper. *Phlomis tuberosa* grows in all regions of Europe in the stripes of black soil, it is heliofit, xerophyt. In Ukraine in natural coenoses it is amplified in the forest-steppe and steppe regions. *Eryngium campestre* is widespread in steppe and forest-steppe zones of Ukraine; it rarely happens in the south Woodlands. The plant is heliofit and xerophyt. It is growing in the steppe grasslands, fields, roadsides and dwellings as a part of ruderal vegetation. *Potentilla alba* grows on various soils from dry to wet, nutrient-poor, sandy and clay. It is an oligotroph, mesophyt and optional heliofit. It prefers light, particularly oak and pine forests, forest edges and meadows. In Ukraine it grows in Polissya and Forest-steppe. *Pulmonaria officinalis* mainly grows in forests, among shrubs. In Ukraine the area covers Western regions. *Nepeta cataria* grows on forest edges, slopes, ruderal places. This species is optional heliofit and

mesophyt. The area covers the whole Ukraine. *Thalictrum foetidum* grows in light forests, forest edges, in the steppes, on open rocky cliffs and rocks on limestone, chalk, granite. It is heliofit and xerophyt. In Ukraine the plant grows in the western regions, especially in the Carpathian Mountains. *Inula helenium* grows along the banks of lakes and ponds, in the river valleys, wet meadows, forest edges, among the bushes. This medical plant is heliofit and mezohihrofit. It grows in territory of all Ukraine. In the southern part of our country it is rare, in the steppe regions *Inula helenium* is listed to the regional Red Lists.

Analysis of the adventive flora shows that *Paeonia anomala* is typical mesophyt, optional heliofit, which is widespread in Eastern and Western Siberia, which grows in forests, meadows and forest edges. *Helianthus annuus* is plant that originates from North America, mezotrof, mesophyt and heliofit. In the Central and Southern regions of Ukraine is widespread agricultural crop. *Oplopanax elatus* is an endemic of the southern Primorye and the Korean Peninsula. It is stsyofit, mesophyt, kind which is demanding to humidity. It grows in alpine spruce, fir and birch forests.

Analysis of the of natural distribution and ecological requirements of medicinal plants to growing conditions allows to determine most appropriate areas for cultivation, because phytochemistry methods proved that the most biologically content in raw materials will be at growing in the natural habitat types of the investigated medical plants. So, *Astragalus dasyanthus*, *Phlomis tuberosa*, *Eryngium campestre* is advisable to grow in the plains regions of Ukraine. *Inula helenium*, *Nepeta cataria*, *Potentilla alba* is better to grow in Forest-steppe region or in the Polissia. *Thalictrum foetidum* and *Pulmonaria officinalis* is the most productive if they are grew in the West of Ukraine. To determine the best regions for growing of the Siberian species *Paeonia anomala* we need more research. And in general the cultivation of endemic species *Oplopanax elatus* in open ground in Ukraine is problematic. Growing technology and regionalization of certain varieties only of *Helianthus annuus* among the studied introduced species of medical plants is developed in detail in Ukraine.