

## 16. HELICHRYSUM SPECIES IN THE FLORA OF THE REPUBLIC OF MOLDOVA WITH PHARMACEUTICAL POTENTIAL

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**Introduction.** Plants of the genus *Helichrysum* (Asteraceae) are known as everlasting flowers and are widely used in traditional medicine around the world due to the variety of secondary metabolites that plants of this genus produce.

**Aim of study.** The evaluation of spread of g. *Helichrysum* in the world and of the Republic of Moldova flora, especially of species with pharmaceutical potential, according to the scientific literature data.

**Methods and materials.** Were evaluated the literature and database of *Helichrysum* species, their chemical composition and pharmacological activity.

**Results.** The Asteraceae family comprises 1600 genus and 23000 species in the world flora and the g. *Helichrysum* includes 600 species distributed mainly in Europe, Asia, North America in dry forest areas. The name of the *Helichrysum* comes from the Greek *helios* - sun and *chrysos* - gold, from the fuzzy leaves of the golden-coloured sheath. In the Republic of Moldova only one specie *H. arenarium* (L.) Moench- (popularly known as everlasting, occurs sporadically on the cliffs of the right bank of the Nistru River, in the landscape reserve "Climăuții de jos", in the Steppe Hills steppes, on the limestones of Naslavcea, in the steppe sector, with a declining population due to collection, being a vulnerable species. Many research works focus on the investigation of constituents such as phenolic compounds, flavonoids, phytosterols present in the flowers of *H. arenarii*, where it is indicated that the most important group of compounds responsible for pharmacological activity are flavonoids (naringenin-5-O-glucoside or helichrysin A, kaempferol, quercetin, luteolin, apigenin). Due to the fact that *H. arenarium* is well known in folk medicine and widely used, it is classified as an endangered species in several European countries. In the collection of the Scientific and Practical Centre for Medicinal Plants *Nicolae Testemitanu* SUMPh is introduced sp. *H. italicum* (Roth) G. Don., rich in phenolic compounds and essential oils ( $\alpha$ -cadren,  $\alpha$ -pinene, geranyl acetate, limonene, nerol) with cholagogue, antimicrobial and anti-inflammatory properties. The species is also used in the cosmetics industry (perfumes) due to its characteristic odor due to the content of essential oils.

**Conclusion.** The present study contributes to increasing knowledge about the spread of g. *Helichrysum* in the world and the Republic of Moldova flora, which can serve as a starting point for future investigations on species (*H. arenarium* and *H. italicum*).