



## 9. PHYTOCHEMICAL ANALYSIS OF HYSOPUS OFFICINALIS L. FROM REPUBLIC OF MOLDOVA

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**Introduction.** *H. officinalis* widely grows in southern Europe, Central Asia, Russia and Iran. This species is one of the important medicinal plants and is extensively cultivated in Spain, France and Italy. The aerial shoots of this plant are useful for the treatment of respiratory diseases, including asthma, bronchitis and coughs, as they contain chemicals such as terpenes, flavonoids, volatile oils, tannins and resin.

**Aim of study.** The determination of total polyphenols and hydroxycinnamic acids in dried extracts obtained from the aerial parts of three varieties (roseus, albus and cyanus form)

**Methods and materials.** The aerial parts of three genotypes of the *H. officinalis* L. were collected from the collection of the IGPhPP. The extracts were obtained with 70% ethanol by maceration with stirring. The total phenolic content in the dried extracts was quantified using the Folin-Ciocalteu method, while the total hydroxycinnamic acids were determined spectrophotometrically using the Arnow reagent.

**Results.** Spectrophotometric analysis determined the total content of polyphenols in dried extracts obtained from the aerial parts of three varieties of *H. officinalis* (roseus, albus and cyanus forms). The highest concentration of polyphenols (mg GA/g extract) was found in the dried extract from *Hyssopi herba* in the roseus form (37), followed by extracts obtained from the cyanus (32.88) and albus (24.65) forms. The total hydroxycinnamic acids, expressed as caffeic acid, ranged from 22.65% (roseus) to 15.52% (albus).

**Conclusion.** The chemical study of the analysed samples determined that the dry extract obtained from *Hyssopi herba*, especially *H. officinalis* in the roseus form, showed the highest content of phenolic compounds.