

**COMPARATIVE PHYTOCHEMICAL ANALYSIS OF TINCTURE AND FRUIT
OF JAPANESE PAGODA TREE (STYPHNOLOBIUM JAPONICUM (L.))
FROM DIFFERENT MANUFACTURERS**

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Introduction. Fruit and buds of Japanese pagoda tree (*Sophora japonica* L.) of the legume family (Fabaceae) are the official medical plant raw materials since they are members of the State Pharmacopoeia of Ukraine.

Several drugs from this raw material are presented in the pharmaceutical market of Ukraine. These are fruit of Japanese pagoda tree in packaged form, fruit tincture and others.

Aim The aim of the study was to compare the phytochemical analysis of fruit and tinctures of Japanese pagoda tree by various domestic manufacturers.

Materials and methods. The determination of the content of impurities, the mass loss during drying, and the total ash in samples of Japanese pagoda tree fruit were carried out gravimetrically. For tinctures, a comparative organoleptic analysis was performed. Determination of the content of hydroxycinnamic acids, the sum of phenolic compounds in medical plant raw materials and tinctures was carried out by direct spectrophotometry at $\lambda = 325$ nm and 270 nm, respectively. The content of flavonoids was determined by the method of differential spectrophotometry at $\lambda = 405$ nm.

Results and discussion. As a result of the conducted researches, it was found that in the Japanese pagoda tree fruit produced by «Apteka likars'kykh trav» LLC contains 0.60% hydroxycholic acids in terms of chlorogenic acid, 2.49% of the sum of phenolic compounds in terms of gallic acid and 0.55% of flavonoids in terms of rutin. The fruit of the Japanese pagoda tree by the company «Kliuchi zdorov'ya» contains 2.13% hydroxycholic acids, 3.84% of the sum of phenolic compounds and 0.53% of flavonoids. It is determined that in the investigated raw material produced by «Apteka likars'kykh trav» LLC content of extraneous impurities is 0.23%, the mass loss at drying is 6.83%, the total ash content is 7.69%. In the medical plant raw materials produced by the «Kliuchi zdorov'ya» these indicators are 2.22%, 7.78% and 11.46% respectively. In the study of tinctures of the Japanese pagoda tree produced by pharmaceutical company "Viola" was found that the content of hydroxycinnamic acids is 0.47%, the amount of phenolic compounds is 0.60% and the amount of flavonoids is 0.44%. The tinctures of the Japanese pagoda tree produced by "Phytopharm" PAO contain 0.45% of hydroxycinnamic acids, 0.59% of phenolic compounds and 0.30% of flavonoids.

Conclusions. As a result of the research, it was found that the Japanese pagoda tree of two Ukrainian producers are close to the content of flavonoids, but differ in the content of hydroxycholic acids and the sum of phenolic compounds. The tincture of the Japanese pagoda tree of two domestic producers has similar values for the content of all three groups of biologically active substances.

**STUDY MACRO- AND MICROELEMENT COMPOSITION
OF LEAVES *RHODODENDRON PURDOMII***

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Introduction. Macro- and microelements play an important role in the functioning of the human body, namely, they are part of the hormones, enzymes, vitamins and cause chemical and biological activity. Their content depends on many factors, namely: environmental factors, time of harvesting of raw materials, drying conditions, and so on. The system of digestion of the human body, the work of the nervous and cardiovascular system, transportation of nutrients, which comes mainly from food products, water need constant replenishment. The pharmacological properties of phytopreparations are influenced