

**Conclusions.** The paper presents the results of a study of the amino acid composition of *Phlomis thapsoides* herb with the aim of promoting it into medical practice. It has been shown that a specific set of amino acids in *Phlomis thapsoides* herb includes 16 amino acids, among which 9 are irreplaceable. Among the detected amino acids, alanine, leucine, glutamine, asparagine, and glycine predominate in quantitative terms.

## STUDY OF EXTRACTIVE SUBSTANCES OF PEANUT HERB

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**Introduction.** Recently, despite the success of chemistry in the synthesis of drugs, medicinal plants and drugs from them are becoming very popular. The study and use of medicinal plants by humans in the fight against diseases has a long history.

Peanut (*Arachis hypogaea* L.) is an annual low herbaceous plant of the legume family (*Fabaceae*). Peanuts are grown all over the world primarily as an oil crop, as beans contain up to 60% fat and more than 30% protein. Therefore, the bulk of the crop is processed into oil. It has a high nutritional value due to the high level of easily digestible proteins and fats. It should be noted that peanut fat contains about 20% saturated fatty acids and 80% unsaturated, among which the largest share is occupied by oleic and linoleic acids.

In recent years, the production of peanuts in the world is constantly growing due to the increase in sown areas, the use of high-yielding varieties, fertilizers, chemicals, as well as improvement of the harvesting process. Peanut crops in the world occupy about 19 million hectares. Leading countries in peanut production are India, China, Indonesia. The second place in the world production of peanuts belongs to the countries of Africa.

The analysis of literature has shown that the chemical composition of peanut seeds has been studied in more detail. The composition of biologically active compounds of peanut grass has not been studied.

**Aim.** The aim of the work was to study the extractives of peanut grass, harvested in 2020 in Pervomaisky district of Kharkiv region.

**Materials and methods.** The main stage of obtaining phytopreparations is the extraction of compounds from medicinal plant raw materials. In order to most completely remove the complex of phenolic compounds, a study was conducted to select the optimal extractant.

Determination of the optimal extractant was performed by extracting dry raw materials with water and alcohol-water mixtures of different concentrations (30%, 50%, 70% and 96%). The evaluation criteria were the results of determining the content of extractives in the extracts obtained by various extractants, and chromatographic analysis. Determination of the content of extractives was performed by pharmacopoeial method. The obtained extracts were evaporated, equal amount (0,05 ml) of each extract was applied to chromatographic paper and chromatographed. The chemical composition and completeness of the extract were controlled by one-dimensional and two-dimensional paper chromatography in solvent systems: n-butanol - acetic acid - water, in the ratio (4: 1: 2) and 15% acetic acid.

**Results and discussion.** The dried chromatograms were compared by number of spots, their size, color and intensity. It was found that the percentage of extractives of peanut grass depending on

the solvent decreases in the following sequence: water > 30% ethyl alcohol > 50% ethyl alcohol > 70% ethyl alcohol > 96% ethyl alcohol.

Analysis of these chromatograms has shown that despite the fact that the highest yield of extractives was observed during extraction with water, 50% alcohol extract contained a larger amount of phenolic compounds.

**Conclusions.** Thus, it can be concluded that water is the optimal extractant for further dry extract of peanut grass, because it allows to obtain the largest amount of extractives.

## **STUDY OF EMBRYOTOXIC AND TERATOGENIC EFFECTS OF "ASFERVON"**

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**Introduction:** *Ferula assa-foetida* L., commonly known as asafoetida, is a perennial herb, often with a thick and tall, sometimes gigantic stem, reaching up to 4 meters in height. Belongs to the Apiaceae family.

The main origin of *Ferula assa - foetida* - steppes of Iran and Afghanistan, some representatives of the genus grow in the Mediterranean, North Africa, West, Central and East Asia.

Today the plant *Ferula assa - foetida* is also grown on special plantations in the Republic of Uzbekistan. In particular, *Ferula* grows in Tashkent, Surkhandarya, Kashkadarya, Samarkand, Jizzakh, Navoi, Bukhara regions, as well as in the territory of the Republic of Karakalpakstan. Asafoetida resin is widely used for medical purposes. Speaking about the composition of the gum-resin, it should be noted that it mainly consists of essential oils, organic sulfides, coumarins and other compounds. *Ferula assa-foetida* is used in traditional Asian medical systems as a substance that improves the functioning of the digestive system, cleansing and strengthening the gastrointestinal tract, anthelmintic, antispasmodic, carminative, expectorant, laxative, and sedative effects of this plant have also found their use in medicine. In connection with its active use in medicine, as well as its pharmacological action, we have conducted a number of studies, where we studied the safety of the drug "Asfervon" during pregnancy. Gum resin was provided by the staff of "ABDU-S" company, in the form of a powder obtained in the process of separation from the upper layer of the fatty part of the resin. The resin is obtained from an incision of the *Ferula assa-foetida* plant growing on the territory of the Jizzakh region of Uzbekistan. Powder "Asfervon" is obtained as a result of simple technological procedures in accordance with patent No. IAP 06453.

**The aim of the study** was to study the embryotoxic and teratogenic properties of the drug "Asfervon" on white outbred rats.

**Materials and methods.** The experiments were carried out on 24 pregnant white rats weighing 235–260 g, of which 1 experimental (12 pregnant females) and 2nd control (12 pregnant females) groups were formed. Rats

both groups received the drug "Asfervon" at a dose of 100 mg / kg into the stomach in during critical periods of embryogenesis: from the 1st to the 7th day of pregnancy, from 8 to 14 and from 1 to 19 days of pregnancy. The control animals were injected with physiological saline in an appropriate volume. To identify the embryotoxic effect of the drug, the total embryonic mortality was taken into account (the difference between the number of corpus luteum of pregnancy and live fetuses from the number of corpus luteum in the ovaries in percent).