

The cells of the epidermis of the lamina are parenchymal, round or oval, the cellular membranes are slightly wavy. Type of respiratory apparatus is paracytic. Prodigies are often found, evenly distributed, the orientation of the peritoneal gap is chaotic.

There is no pubescence on the upper epidermis. On the lower epidermis, pubescence occurs, on the vein the pubescence is more abundant. Trichomes are simple two-cellular, with a short basal cell filled with yellow-brown contents, and a long terminal cell. At the edge of the lamina, the pubescence is more abundant and the hairs are longer.

Conclusions. Thus, a morphological and anatomical study of cultivated peanut leaves was conducted. On the basis of the study of the anatomical structure of peanut leaves, characteristic microscopic signs were determined, which allows to conduct the diagnosis of raw materials.

STUDY OF FLAVONOID COMPOUNDS IN THE HERB DAHLIA CULTIVARS GROWN IN UKRAINE

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Introduction. The study of promising medicinal plant materials is currently one of the topical issues of domestic pharmacy and medicine. In the framework of a comprehensive pharmacognostic study of dahlia plants, we studied the phenolic composition of herbs, varieties of the dahlia genus widely cultivated in Ukraine.

Aim. Study of the qualitative composition and quantitative content of flavonoids in the herb of varieties of the dahlia genus cultivated in Ukraine.

Materials and methods. For analysis, we used herb of the following varieties: Nenecazy, Gitts Attention and Spolokh. Raw materials were collected during the flowering period and dried to air-dry condition. To confirm the flavonoid compounds in the herb, qualitative reactions were performed with a 1% solution of iron III chloride, a 10% solution of alkali and a Brianth reaction. A preliminary study of compounds of flavonoid nature was carried out by paper chromatography in solvent systems: I – n-butanol-acetic acid-water, II – 5% acetic acid in parallel with reliable flavonoid samples. Chromatograms were viewed under ultraviolet light, treated with ammonia vapors and 3% ferric chloride solution. The quantitative content of the studied compounds was determined by the spectrophotometric method with a wavelength of 415 nm.

Results and discussion. According to the results of the experiment, phenol compounds, in particular flavonoids, namely quercetin, kaempferol and rutin, were determined in all samples of the raw materials. A comparative study of the quantitative content of the amount of flavonoids in raw materials of varieties of the dahlia genus showed that this group of compounds was found in the greatest amount in the grass of the Gitts Attention variety ($0.83 \pm 0.02\%$), 1.1 times less in the variety Nenecazy ($0.77 \pm 0.01\%$),. In a smaller amount, flavonoids accumulated in the Spolokh variety $0.65 \pm 0.02\%$.

Conclusions. The results will be used in subsequent studies, standardization of raw materials and the development of promising herbal substances.

ANALYSIS OF ARGAN OIL OF MOROCCAN ORIGIN

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Introduction. Argan tree (*Argania spinosa* (L.) Skeels), of the family *Sapotaceae*, is endemic in South-western Morocco where it grows over about 320,000 square miles. Argan oil and preparations

including argan oil have been used in the traditional Moroccan medicine for centuries to cure skin diseases, such as skin pimples, juvenile acne, and chicken pox pustules. It is also extensively used in prevention of wrinkles formation and in fighting dry skin and dry hair. Due to its chemical composition, it is claimed to be an important source of antioxidants and an effective agent in the prevention and treatment of cardiovascular diseases, which is able to lower the blood cholesterol and triacylglycerides level in humans.

Purpose of the study. Determination of the qualitative composition and the quantitative content of components of Argan oil produced in Morocco.

Materials and methods. The samples of argan oil, produced in three regions in Morocco in 2018, were used for the current research. The analysis of the samples was carried out using the combined Gas Chromatography-Mass Spectrometry method using the PerkinElmer TurboMass software at the Mohammed V University (Rabat, Morocco).

Results and discussion. The study has shown the presence of both saturated and unsaturated fatty oils in the composition of all the studied samples. Among the saturated acids palmitic and stearic acids prevailed, while among the unsaturated ones oleic and linoleic acids were found in larger quantities. As for sterols, γ - and β -sitosterol were found in rather high quantity, and the marker sterol schottenol was also detected in the samples studied.

Conclusions. The data received have shown the difference in the composition of argan oil of Moroccan regions, which helped identifying the prevailing components in each of the samples, as well as the adulterants in each of the samples studied.

PHENOLIC COMPOUNDS OF IRIDODICTYUM RETICULATUM CANTAB

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Introduction. Medicine successfully uses for the rehabilitation and prevention of human diseases drugs based on medicinal plants. They have low toxicity with a sufficiently high efficiency, a wide range of therapeutic actions, a minimum of side effects, a relatively cheap cost compared with synthetic drugs. Some of the most promising for research are plants of the genus *Iris*, known as ornamental herbaceous plants. They are widely distributed and cultivated in Ukraine, unpretentious in the care, contain a significant amount of biologically active substances (BAS): flavonoids, isoflavonoids, essential oils, organic acids, aldehydes, glycoside iridine, carotenoids, saponins, fatty oils, fatty acids, tannins, starch, xanthones, coumarins, hydroxycinnamic acids, aglycones. It has long been used in folk medicine as an astringent, expectorant, anti-inflammatory, analgesic, enveloping, diuretic, anthelmintic, hemostatic agents. In cosmetology: essential oil is used in high-quality perfumes ("Chanel No. 19", "Extravagance d'Amarige", "Champs-Elysees", "Ghost summer breeze"), rhizome extract – moisturizing products for face and body skin care, as well as through estrogenic activity – for the treatment of hair and scalp.

Plants of the genus *Iridodictyum* belong to the family Iridaceae and they are often referred to as bulbous *Iris* (or *Iridodictyum*), as their underground portion is an bulb. The genus *Iridodictyum* has a total of 11 plant species (The Plant list, 2019). The homeland is Asia Minor and Central Asia. These are perennial plants with a height of 9–10 cm, which begin to bloom as snow melts, after flowering a large above-ground part (15–20 cm) is formed. The leaves are dark green, quadrangular, with a membranous vagina. After flowering, the leaves are drawn out and become longer than the stems. They are successfully cultivated in Ukraine. The chemical composition of plants of the genus *Iridodictyum* has not been studied, so it was important to conduct phytochemical studies. Promising for study are: netted iris (*I. reticulatum* (Bieb.) Rodion.) and its varieties such as 'Cantab' with blue-violet, 'Clarette', 'Ida' with light blue, 'Joyce', 'Edward', 'Violet Beauty' with violet-blue, 'Purple Gem' with violet-reddish color of flowers.

Aim. The aim of our study was to conduct a qualitative and quantitative determination of the composition of phenolic compounds in the *Iridodictyum reticulatum* variety Cantab.